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Petition to the Alaska Board of Fisheries

I am petitioning the Alaska Board of Fisheries under 5 AAC 96.625 and AS 44.62.220 to adopt all of the remaining 17 king salmon stocks in the Northern District of UCI Stocks of Concern at Yield Concern level based on the fact that the Department failed to set or review the current escapement goals in a scientifically defensible manner.

The current goals rely on the 4-tier Percentile Approach which Clark et al., 2014, determined that “*SEGs based on the current approach, especially the upper bounds, may actually be **unsustainable***,” set at a level above carrying capacity. That means these goals are unconstitutional based on the Alaska State Constitution. This 2014 report, written by two former Chief Fisheries Scientists, three Current Fisheries Scientists and a retired Research Coordinator for the Department, states “**We recommend that the current 4-tier Percentile Approach be replaced with the following 3 tiers for stocks with low to moderate (less than 0.40) average harvest rates:**” and it further recommends that “**Use of the Percentile Approach is not recommended for the following situations:**

Average harvest rates of 0.40 and greater;

Very low contrast (4 or less) and high measurement error (aerial or foot surveys).”

This final recommendation is also being ignored here. In these two situations Clark et al. recommends that no goal be set and instead “*should undergo improvements in stock assessment*”. The Department failed to address the concerns in this peer reviewed and published report, written by their own experts.

The only goal that can currently be evaluated from the information provided by the Escapement Goal Report (EGR) is the new Chinook goal for the Little Susitna River. The EGR states “... *the characteristics of this stock do not fit any of the tiers in the 3-Tier Percentile Approach (harvest rate > 0.40, contrast =6)*” this is completely wrong since Clark et al. 2014 clearly states that **Use of the Percentile Approach is not recommended for the following situations: Average harvest rates of 0.40 and greater...**

Further, the EGR uses the 4-Tier approach utilizing a range of 15-85 percent of the escapements which Clark, 2014, determines on page 9 to be “*most likely **unsustainable** even in cases of moderate harvest rates.*” For all of the remaining EG’s, except the Deshka, sufficient information is not provided by the Department to know whether these goals are even sustainable. The Department failed to review or provide information in the Escapement Goal Report sufficient for the Board to make an informed decision on what the level of risk is to these small stocks. By not reviewing the goals and making new ranges based on the 3-Tier Approach, the Department has made the Board’s decision for them which is beyond their authority and bypassed the public process!

The Northern Cook Inlet management report by Osland et al., estimates the total run of Chinook to Northern Cook Inlet to be 100,000 to 200,000 Chinook (page 8). They also state that from 1893 until 1940 the average harvest was 38,500 annually, before we had all these Cracker Jack scientific escapement goals, Bayesian Models, helicopters or even computers.

From the Osland report for NCI in Table 22 the total Chinook average harvest from the 1970's was 5,500, 1980's average was 20,000, 1990's the average is 30,000. Beginning in 2000 with these newly developed goals the average harvest drops to 25,000 and 6,000 from 2010 to 2015. Again on page 8 of the Osland report, there is an escapement estimate in 2013, for the mainstem of the Susitna River only, of 89,463, which does not include the Yentna or any west Cook Inlet streams and this "represents a low run year."

The entire harvest of NCI Chinook in 2013 by sport, commercial and subsistence was 2,940 Chinook. If the entire harvest of 2,940 Chinook was from the Susitna mainstem, the exploitation rate would be 3 percent. After spending millions of state dollars on research, I would think that a total yield of 3 percent would classify as a failure of the overall management approach to these Northern District Chinook stocks and classify them as a stock of yield concern. (42) *"yield concern" means a concern arising from a chronic inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above a stock's escapement needs; a yield concern is less severe than a management concern, which is less severe than a conservation concern;*

Based on Deshka River data the cause of this yield concern appears to be mismanagement and over escapement. No one who has done very many aerial surveys would tell you they are accurate. It is very likely that the single aerial surveys done by numerous surveyors over the last 30 years, and not standardized to day of the year, are poor proxies to the actual escapement. It is more likely that Deshka escapements are better indicators of run strength and would make a better index to the returns to these small stocks.

As the Osland NCI report describes on page 9, the mixed stock commercial fishery has been replaced by a *"recreationally dominated harvest that targeted a multitude of discrete substocks"*. In the commercial fishery, which harvests relatively evenly across all stocks, an index stock works relatively well to manage the fishery exploitation rate and provide for reasonable escapements. In the NCI commercial fishery the Deshka River weir count is an effective tool to manage the commercial fishery. In the sport fishery the Deshka River escapement only helps manage the Deshka River sport fishery and, from the data, not all that well.

With the sport fishery switch to harvests targeting *a multitude of discrete substocks* a different method of escapement monitoring needs to be developed to control the harvests to the multitude of rivers in UCI. The statewide harvest survey two years later isn't usable and I haven't heard sport fish division recommend any other reasonable method.

If you want to have a fishery managed for high exploitation rates with stable harvests that are sustainable over time, better programs to monitor the fishery are necessary. Time and area methods and Emergency Orders, like those used in the commercial fishery, are anything but stable and predictable which is what is desired in the sport fishery meaning they don't work, however it is the only way to have and maintain high harvest rates. In a fishery which has a catch and release rate as high as 82% (Osland p. 86), perhaps harvest is a poor measure of success.

When you have a yield concern caused by under-counting of the escapement or under-harvest due to politics or mismanagement, the way out of the problem is to increase yield incrementally across all stocks and not make huge changes in management plans every three years. 5 AAC 21.366. Northern District King Salmon Management Plan needs to be amended to increase yield incrementally across all stocks to increase yield and prevent the huge escapements and subsequent lost production from occurring. Improvements will take time to work. **However until the Department actually does it's job and evaluates all of the escapement goals** the Board is prevented from doing its job of allocating the available surplus because the Department has already reallocated the available yield illegally. It is called MSR instead of MSY. MSR includes allocations to the river to make sport fishing better, however, this experiment seems to have failed.