

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 Deshka River Chinook Salmon as a Stock of Concern at both the Management Concern and Yield Concern levels. The current escapement goal is an SEG of 13,000 to 28,000 Chinook; however that goal is often exceeded by wide margins. Nearly all of these large escapements result in large negative yields, some as high as -50,000 yield in 2004. The preamble of the Northern District King Salmon Management Plan needs to be changed to reflect this problem in the following way.

5 AAC 21.366. Northern District King Salmon Management Plan (a) The purpose of this management plan is to ensure an adequate escapement of king salmon into the Northern District drainages and to provide management guidelines to the department, **The department shall manage the Northern District king salmon stocks to achieve the escapement goal in the Deshka River set by the Department to achieve 90 percent of MSY by managing for the range of XX,000 to XX,000.** [PRIMARILY FOR SPORT AND GUIDED SPORT USES IN ORDER TO PROVIDE SPORT AND GUIDED SPORT FISHERMEN WITH A REASONABLE OPPORTUNITY TO HARVEST THESE SALMON OVER THE ENTIRE RUN AS MEASURED BY THE FREQUENCY OF INRIVER RESTRICTIONS.] The department shall manage the Northern District for the commercial harvest of king salmon as follows:

While this endeavor of establishing a "Stock of Concern" should usually be left to the Department, it would appear that they were more concerned with who catches these fish than the huge lost yield over time from 1974 to 2016. Since they neglected to do what they are required to do under "**5 AAC 39.223. Policy for statewide salmon escapement goals** (b) (6) *review an existing, or propose a new, BEG, SEG and SET on a schedule that conforms, to the extent practicable, to the board's regular cycle of consideration of area regulatory proposals;*" I think it imperative that the Board exercise it's joint responsibility under this same regulation to review and correct this emergency created by the late dissemination of this fisheries data and failure of the Department to carry out what on the surface appears to be one of it's primary responsibilities.

On page 50 of the Upper Cook Inlet Escapement Goal Review by Erickson, Willette and McKinley, 2017 submitted for this meeting, establishes in table Appendix A.7 that in **18 out of 36 years** the escapements (column 3&4) for this stock failed to replace themselves in the Brood Year Return (column 5) and resulted in negative yield (column 6) or a return per spawner of less than one (column 7). The net result of all this is that over the last 36 years, if you sum the Yield column you get a total yield of only 47,959 Chinook from a total escapement over this same time of 1,281,980 Chinook. If you look at the total of only the years with positive yield (344,120) versus the total escapement (1,281,980) results in an overall return per spawner of 0.27 returning fish per spawner. (344,120/1,281,980=.27) No false, misleading or biologically questionable Bayesian manipulations required, these fish are counted through a weir.

Under 5 AAC 39.222 (21) *"management concern" means a concern arising from a chronic inability, despite use of specific management measures, to maintain escapements for a salmon stock within the bounds of the SEG, BEG, OEG, or other specified management objectives for the fishery; a management concern is not as severe as a conservation concern;* I think that huge surplus escapements, well over the escapement goal range over half of the time and for three multi year events qualifies as a management concern.

Additionally under the definition 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;* I would think that in the time span of 36 years having an overall return per spawner of 0.27 and negative yield in 18 of 36 years or over half of the time certainly would qualify as a yield concern. In 18 of 36 years the escapement is over the upper end of the escapement goal. If this lost yield was the result of small escapements, those under the goal there would be a special meeting convened with investigations by the Alaska Legislature, however all escapements in this report below the goal result in positive yield. The same can not be said for escapements over the goal. Nearly all of these large escapements result in large negative yields, some as high as -50,000 yield in 2004. For example in 2004 an escapement of 56,659 Chinook resulted in a total return of 6,511 Chinook or 0.11 return per spawner. These huge over escapements have occurred in three separate multi-year episodes 4 years in the first, 9 years in the second and 5 years in the third, marked in the attached table taken from the ADF&G report. If this is what MSR management for better sport fishing entails, as explained in the Kenai Large Fish Goal report I think you should reevaluate this failed theory. Additionally when looking around the state it would appear that all Chinook Goals have been shifted to the right towards larger than called for escapements. Perhaps that is what is causing this period of "low production" we have heard about.

This is an emergency caused by the Department's failure to publish this escapement goal report in a timely manner. This matter could have been addressed by a proposal but since this report was withheld until 9 months after that deadline a proposal was not possible, nor was this level of mismanagement known until just days ago. Additionally the Department failed to address this egregious loss of yield resulting from mismanagement of this stock as part of the escapement goal review process which I would think the public has the right and should be able to expect. This is an emergency that should be addressed at this meeting! The Department should review the escapement goal immediately, so the Board can make an "intelligent" or at least an informed decision on the Deshka River escapement goal and how best to manage for that goal.

Submitted by:

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Appendix A7.—Data available for analysis of Deshka River Chinook salmon escapement goal.

Brood Year	Aerial Survey ^a	Escapement ^b	Weir Escapement ^c	Total Return ^a	Yield	Return per Spawner	Year	Sport Harvest ^d
1974	5,279	15,201		61,394	46,194	4.04	1974	
1975	4,737	14,088		33,533	19,446	2.38	1975	
1976	21,693	48,916		37,763	-11,153	0.77	1976	
1977	39,642	85,784		38,535	-47,249	0.45	1977	
1978	24,639	54,967		44,888	-10,079	0.82	1978	
1979	27,385	60,607		52,489	-8,119	0.87	1979	2,811
1980		35,096 ^e		45,021	9,924	1.28	1980	3,685
1981		23,162 ^e		44,951	21,789	1.94	1981	2,769
1982	16,000	37,222		75,430	38,208	2.03	1982	4,307
1983	19,237	43,871		36,337	-7,534	0.83	1983	4,889
1984	16,892	39,054		35,464	-3,590	0.91	1984	5,699
1985	18,151	41,640		47,082	5,441	1.13	1985	6,407
1986	21,080	47,657		30,712	-16,945	0.64	1986	6,490
1987	15,028	35,226		21,774	-13,451	0.62	1987	5,632
1988	19,200	43,795		20,691	-23,104	0.47	1988	5,474
1989		23,246 ^e		15,623	-7,624	0.67	1989	8,062
1990	18,166	41,671		6,846	-34,825	0.16	1990	6,464
1991	8,112	21,020		15,918	-5,102	0.76	1991	9,306
1992	7,736	20,248		43,080	22,832	2.13	1992	7,256
1993	5,769	16,207		31,748	15,541	1.96	1993	5,682
1994	2,665	9,832		30,307	20,475	3.08	1994	624
1995	5,150		10,048	52,976	42,928	5.27	1995	0
1996	6,343		14,349	25,498	11,149	1.78	1996	11
1997	19,047		35,587	33,619	-1,968	0.94	1997	42
1998	15,556	36,310		42,143	5,832	1.16	1998	3,384
1999	12,904		29,088	66,911	37,823	2.30	1999	3,496
2000			33,965	46,864	12,899	1.38	2000	7,076
2001			27,966	39,668	11,702	1.42	2001	5,007
2002	8,749		28,535	30,860	2,325	1.08	2002	4,508
2003			39,257	6,995	-32,262	0.18	2003	6,605
2004	28,778		56,659	6,511	-50,148	0.11	2004	9,050
2005	11,495		36,433	25,664	-10,769	0.70	2005	7,332
2006	6,499		29,922	21,583	-8,339	0.72	2006	7,753
2007	6,712		17,594	13,694	-3,900	0.78	2007	5,696
2008			7,284	23,155	15,871	3.18	2008	2,036
2009	3,954		11,641	15,382	3,741	1.32	2009	723
2010 ^f			18,223				2010	3,381
2011 ^f	7,522		18,553				2011	3,139
2012 ^f			13,952				2012	1,650
2013 ^f			18,378				2013	1,087
2014 ^f			16,099				2014	1,329
2015 ^f			23,627				2015	1,835

Note: Blank cells indicate no available data.

^a Escapement not surveyed or monitored during years with no escapement value.

^b Data used for spawner-recruit analysis. Aerial surveys were expanded, based on the relationship of aerial surveys to weir counts observed for 1995–2009, to obtain estimates of escapement (Rich Yanusz, Sport Fish Research Biologist, ADF&G, Palmer; personal communication).

^c Sport fish about the weir was subtracted from weir count.

^d From Statewide Harvest Survey (Jennings et al. 2015). Years with no harvest estimate occur because the escapement time series precedes the survey (begun in 1977) or harvest could not be estimated from survey data.

^e Based on average survey indices from nearby years for 1980 and an expectation-maximization (E-M) algorithm for 1981 and 1989 (Rich Yanusz, Sport Fish Research Biologist, ADF&G, Palmer; personal communication), and regression expansion.

^f Complete return data not yet available.