

Department of
Fish and Game



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MEMORANDUM

TO: Members DATE: September 20, 2015
Alaska Board of Fisheries

FROM: Jeff Regnart, Director 
Division of Commercial Fisheries
and
Thomas Brookover, Director 
Division of Sport Fish

SUBJECT: Bristol Bay
Management Area
Stock of Concern
Recommendations

The *Policy for the Management of Sustainable Salmon Fisheries* (SSFP; 5 AAC 39.222) directs the department to report to the Alaska Board of Fisheries (board) on the status of salmon stocks and identify any stocks that present a concern related to yield, management, or conservation during regular board meetings. This memorandum summarizes the results of the stock of concern (SOC) evaluation for the Bristol Bay Management Area (BBMA) salmon stocks for the 2015 board regulatory cycle. The evaluation includes input from headquarters, regional, and area management staff from both fishery divisions.

Currently there are 15 escapement goals in the BBMA. Counting towers are used to monitor the majority of sockeye salmon stocks in the BBMA. However, sonar is used to assess Nushagak River sockeye, king, chum, coho, and pink salmon spawning escapements. Spawning escapements for Naknek and Alagnak River king salmon have been assessed periodically with single aerial surveys. Based on SOC evaluation, no BBMA stock has chronically failed to meet its established escapement goal (Table 1); therefore, we recommend that no stocks of concern be established.

Literature Cited

Munro, A.R., E.C. Volk. 2014. Summary of Pacific salmon escapement goals in Alaska, with a review of escapements from 2005 to 2013. Alaska Department of Fish and Game, Fisheries Manuscript Series No. 14-01, Anchorage.

Bristol Bay Management Area Stock of Concern Memo

Table 1.—Bristol Bay Management Area king, sockeye, coho, and pink salmon escapement goals and escapements, from 2006 to 2015 (modified from Munro and Volk,2014).

System	Escapement Goal	Enumeration Method	Goal Type	Initial Year	Escapement									
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 ^a
KING SALMON														
Nushagak River	55,000 – 120,000	sonar	SEG	2013	117,364	50,960	91,364	74,781	56,088	102,258	167,618	107,602	70,482	98,019
Naknek River	5,000	single aerial survey	lower-bound SEG	2007	NS	5,498	6,559	3,305 ^b	NS	NS	NS	NS	NS	3,060 ^c
Alagnak River	2,700	single aerial survey	lower-bound SEG	2007	4,278	3,455	1,825	1,957	NS	NS	NS	NS	NS	917 ^c
CHUM SALMON														
Nushagak River	200,000	sonar	lower-bound SEG	2013	661,002	161,483	326,300	438,481	273,914	248,278	360,768	602,300	493,821	288,929
COHO SALMON														
Nushagak River	60,000 – 120,000	sonar	SEG	2013							329,946	207,222	483,219	NS
PINK SALMON														
Nushagak River (even years only)	165,000	sonar	lower-bound SEG	2013							1,348,606		2,277,430	
SOCKEYE SALMON														
Kvichak River ^d	2,000,000 – 10,000,000	tower count	SEG	2010	3,068,226	2,810,208	2,757,912	2,266,140	4,207,410	2,264,352	4,164,444	2,088,576	4,458,540	7,341,612
Alagnak River ^e	320,000	tower count	lower-bound SEG	2007	1,773,966	2,466,414	2,180,502	970,818	1,187,730	883,794	861,747	1,095,950	200,524	5,770,650
Naknek River	800,000 – 2,000,000	tower count	SEG	2015	1,953,228	2,945,304	2,472,690	1,169,466	1,463,928	1,177,074	900,312	938,160	1,474,428	1,920,954
Egegik River	800,000 – 2,000,000	tower count	SEG	2015	1,465,158	1,432,500	1,259,568	1,146,276	927,054	961,200	1,233,900	1,113,630	1,382,466	2,160,792
Ugashik River	500,000 – 1,400,000	tower count	SEG	2015	1,003,158	2,599,186	596,332	1,364,338	830,886	1,029,853	670,578	898,110	640,158	1,564,638
Wood River	700,000 – 1,800,000	tower count	SEG	2015	4,008,102	1,528,086	1,724,676	1,319,232	1,804,344	1,098,006	764,202	1,183,348	2,764,614	1,941,474
Igushik River	150,000 – 400,000	tower count	SEG	2015	305,268	415,452	1,054,704	514,188	518,040	421,380	193,770	387,036	340,590	651,172
Nushagak River	370,000 – 900,000	sonar	SEG	2015	548,410	518,041	492,546	484,149	468,696	428,191	432,438	894,148	618,477	796,684
	260,000 – 760,000	sonar	OEG ^f	2012										
Togiak River	120,000 – 270,000	tower count	SEG	2007	312,126	269,646	205,680	313,946	188,298	190,970	203,148	128,000	151,934	218,700

Note: NS = no survey.

^a Preliminary escapement estimates.

^b In 2009, aerial surveys were only flown on Big Creek (2,834 king salmon) and King Salmon River (471 king salmon). Mainstem Naknek River and Paul's Creek were not surveyed in 2009.

^c In 2015, the survey observer for many of the previous years had retired and the current survey observer's efficiency is likely different.

^d Prior to 2010 Kvichak River had a pre-peak/peak-cycle escapement goal of 6 – 10 million sockeye and an off-peak escapement goal of 2 – 10 million fish. Between 2001 and 2009 only one year (2004) was classified as either a pre-peak or peak year.

^e Goal was developed from tower counts. Estimates from 2012-2015 are expanded from post season aerial assessment.

^f Nushagak River has an OEG of 260,000–760,000 sockeye salmon when the preseason forecast for the Nushagak River is less than 1 million sockeye salmon and the ratio of Wood River to Nushagak River sockeye salmon is projected to be greater than 3 to 1.