



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

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**Department of
Fish and Game**

DIVISIONS OF SPORT FISH and COMMERCIAL FISHERIES

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MEMORANDUM

TO: Members
Alaska Board of Fisheries

DATE: October 2, 2017

FROM: Scott Kelley, Director *JKB for Scott Kelley*
Division of Commercial Fisheries

SUBJECT: Prince William Sound
Management Area
Stock of Concern
Recommendations

and

Thomas Brookover, Director *TB*
Division of Sport Fish

The *Policy for the management of sustainable salmon fisheries* (SSFP; 5 AAC 39.222) directs the Alaska Department of Fish and Game (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 evaluation for Prince William Sound (PWS) salmon stocks for the 2017–2018 board regulatory cycle. The evaluation was performed by the escapement goal review committee (committee) and included input from regional and area management staff from both fishery divisions.

During the 2017 escapement goal review process all king, chum, coho, pink, and sockeye salmon stocks in the PWS Management Area were examined for potential stock of concern status. Currently, there are no stocks of concern in the PWS Management Area (Table 1). Salmon escapements in the PWS Management Area are primarily monitored by aerial surveys of representative stream reaches. However, escapement for one stock in this area is measured using sonar, one with mark-recapture techniques, and two with weirs. There are 29 escapement goals in the PWS Management Area. During this escapement goal review, the committee specifically reviewed and considered Coghill and Eshamy lakes sockeye salmon as potential stocks of concern.

Coghill Lake sockeye salmon

The escapement goal for Coghill Lake sockeye salmon is a sustainable escapement goal range of 20,000–60,000 sockeye salmon, which is assessed with a weir near the outlet of Coghill Lake. Coghill Lake sockeye salmon was discussed as a potential stock of concern because the stock had not made the goal in 3 of the 4 most recent years (2013–2016), and the 2016 escapement of 8,708 was the lowest in recent history (Table 1). However the goal had been met in 7 of the past 10 years and the 2017 escapement of 50,312 was within the escapement goal range. The committee recommended Coghill Lake sockeye salmon not be designated a stock of concern.

Eshamy Lake sockeye salmon

The current escapement goal for Eshamy Lake sockeye salmon is a biological escapement goal range of 13,000–28,000 sockeye salmon that was developed from a weir operated near the outlet of Eshamy Lake. The weir was last operated in 2011. Since 2013 attempts to assess escapement with a video weir have been unsuccessful. Each year weir integrity issues allowed salmon to pass undetected. Escapement counts since 2013 are incomplete. The committee recommended Eshamy Lake sockeye salmon not be designated a stock of concern.

In summary, none of the 29 PWS salmon stocks exhibited a chronic inability to achieve their escapement goals and therefore, we recommend no stocks of concern be established.

Prince William Sound Management Area Stock of Concern Memo, 2017 – 2018

Table 1.—Prince William Sound Management Area king, chum, coho, pink, and sockeye salmon escapement goals and escapements, from 2008 to 2017. Shaded cells indicate years when the lower bound of the escapement goal was not met.

Species/System	2017 Goal Range		Type	Initial Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 ^a
	Lower	Upper			2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 ^a
KING SALMON														
Copper River	24,000		lower bound SEG	2003	32,485	27,781	16,771	27,993	27,911	28,727	20,840	26,607	12,534	
CHUM SALMON														
Eastern District	50,000		lower bound SEG	2006	82,068	150,051	146,613	240,321	97,362	150,044	93,491	112,142	131,168	
Northern District	20,000		lower bound SEG	2006	50,666	30,296	59,530	64,743	23,818	41,058	27,680	43,179	10,746	
Coghill District	8,000		lower bound SEG	2006	48,221	8,290	84,840	19,617	14,075	14,414	9,491	15,444	1,010	
Northwestern District	5,000		lower bound SEG	2006	34,107	15,826	34,300	11,951	9,360	4,995	5,041	7,321	4,100	
Southeastern District	8,000		lower bound SEG	2006	20,300	150,974	138,442	112,507	31,029	43,000	30,177	52,031	26,127	
COHO SALMON														
Copper River Delta	32,000	67,000	SEG	2003	76,892	41,294	41,077	37,900	35,295	33,130	42,530	41,665	76,200	
Bering River	13,000	33,000	SEG	2003	28,932	22,141	21,311	18,890	15,605	18,820	26,475	15,550	26,150	
PINK SALMON^b														
Eastern District (even year)	250,000	580,000	SEG	2012					301,709		270,244		663,113	
Eastern District (odd year)	310,000	640,000	SEG	2012						1,371,111		1,605,058		
Northern District (even year)	140,000	210,000	SEG	2012				104,849			105,333		150,767	
Northern District (odd year)	90,000	180,000	SEG	2012						318,884		779,600		
Coghill District (even year)	60,000	150,000	SEG	2012					172,611		63,290		171,362	
Coghill District (odd year)	60,000	250,000	SEG	2012						640,414		801,201		
Northwestern District (even year)	70,000	140,000	SEG	2012					117,795		67,030		171,633	
Northwestern District (odd year)	50,000	110,000	SEG	2012						203,444		454,427		
Eshamy District (even year)	3,000	11,000	SEG	2012					1,052		12,400		NA ^c	
Eshamy District (odd year)	4,000	11,000	SEG	2012						12,145		70,068		
Southwestern District (even year)	70,000	160,000	SEG	2012					90,156		84,607		NA ^c	
Southwestern District (odd year)	70,000	190,000	SEG	2012						347,931		789,725		
Montague District (even year)	50,000	140,000	SEG	2012					77,756		NA ^c		NA ^c	
Montague District (odd year)	140,000	280,000	SEG	2012						411,373		649,144		
Southeastern District (even year)	150,000	310,000	SEG	2012					258,047		185,072		169,660	
Southeastern District (odd year)	270,000	620,000	SEG	2012						1,472,633		2,032,492		
SOCKEYE SALMON														
Upper Copper River	360,000	750,000	SEG	2012	480,597	468,725	502,995	607,657	953,745	860,829	864,988	930,095	503,033	
Copper River Delta	55,000	130,000	SEG	2003	67,950	69,292	83,905	72,367	66,850	75,705	64,205	66,665	51,550	56,950
Bering River	15,000	33,000	SEG	2012	18,136	15,172	4,951	28,530	18,290	23,900	14,985	21,705	16,290	18,815
Coghill Lake	20,000	60,000	SEG	2012	29,298	23,186	24,312	102,359	74,978	17,231	21,836	13,684	8,708	50,312
Eshamy Lake	13,000	28,000	BEG	2009	18,495	24,025	16,291	24,129	NA	4,500 ^e	7,453 ^d	4,381 ^d	5,817 ^d	

^a 2017 estimates are preliminary and incomplete for most stocks.

^b Prior to 2012, pink salmon goals were sound-wide goals within a brood line (even and odd years).

^c Insufficient aerial survey coverage.

^d A video weir was operated from 2013-present. The numbers represent an unknown fraction of the total annual escapement.