



THE STATE  
of **ALASKA**  
GOVERNOR MICHAEL J. DUNLEAVY

## Department of Fish and Game

DIVISIONS OF SPORT FISH & COMMERCIAL FISHERIES

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# MEMORANDUM

TO: Members  
Alaska Board of Fisheries

Date: 4-October-2019

Subject: Kodiak Management  
Area Stock of Concern  
Recommendations

From: Sam Rabung, Director *SR*  
Division of Commercial Fisheries  
and  
Dave Rutz, Director *DSR*  
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 Kodiak Management Area (KMA) salmon stocks for the 2019–2020 board regulatory cycle. The evaluation includes input from management and research staff from both fishery divisions. Along with rationale for listing stocks of concern, we also are including criteria that the department would use for recommending delisting in the future.

All king, sockeye, pink, coho, and chum salmon stocks with escapement goals in the KMA were examined for potential stock of concern status. Currently, Karluk River king salmon is a stock of management concern and the only designated stock of concern in KMA. The department recommends Karluk River king salmon remain a stock of management concern. King salmon escapement has not met the Karluk River biological escapement goal (BEG: 3,000–6,000) in 6 of the past 10 years (Table 1).

The department is recommending that Ayakulik River king salmon be listed as a stock of management concern. The king salmon escapement goal for this stock was revised during the 2016–2017 board cycle (BEG 4,800–8,400) and escapement did not meet this goal in 2017, 2018, or 2019. When also including the previous escapement goal (BEG; 4,000–8,400, in place 2011–2016) and the years it was in effect, the Ayakulik River king salmon BEG has not been met in 6 of the last 7 years (2013–2019; Table 1). If the board decides to discuss this recommendation at the Kodiak Area regulatory meeting, the department can help the board draft an action plan that would include conditions to consider for removing the stock of concern designation or reducing management restrictions.

**Table 1.**—Escapement goals and escapements observed from 2009 through 2018 for king, sockeye, coho, pink, and chum salmon stocks of the Kodiak Management Area. Shaded cells indicate the escapement goal was not met, for the goal that was in place at the time.

System	2018 Goal Range		Escapement															
	Lower	Upper	Type	Initial Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 <sup>a</sup>			
<b>KING SALMON</b>																		
Karluk River	3,000	6,000	BEG	2011	1,306	2,917	3,420	3,197	1,824	1,182	2,777	3,434	2,600	3,155	3,898			
Ayakulik River <sup>a</sup>	4,800	8,400	BEG	2017	2,595	5,281	4,296	4,740	2,349	897	2,392	4,574	3,712	2,149	1,948			
<b>SOCKEYE SALMON</b>																		
Malina Creek	1,000	10,000	SEG	2005	1,400	4,000	3,800	4,100	3,800	4,900	1,000	2,000	1,000	500	NA			
Afognak (Litnik) River <sup>b</sup>	20,000	50,000	BEG	2005	31,358	52,255	49,193	41,553	42,153	36,345	38,151	33,167	22,151	17,601	26,817			
Karluk River Early Run	150,000	250,000	BEG	2017	52,798	71,453	87,049	188,085	234,880	252,097	260,758	164,760	242,599	205,054	190,168			
Karluk River Late Run	200,000	450,000	BEG	2017	277,280	276,649	230,273	314,605	336,479	543,469	396,618	324,049	385,896	428,225	317,381			
Ayakulik River Early Run	140,000	280,000	SEG	2011	200,648	201,933	177,480	213,501	214,969	210,040	218,178	182,589	204,497	189,008	162,430			
Ayakulik River Late Run	60,000	120,000	SEG	2011	114,536	60,394	83,661	114,753	67,195	87,671	108,257	71,978	120,361	77,325	117,209			
Upper Station River Early Run <sup>c</sup>	43,000	93,000	BEG	2011	34,585	42,060	28,759	25,487	27,712	36,823	54,473	48,047	83,614	61,732	49,517			
Upper Station River Late Run	120,000	265,000	BEG	2005	161,736	141,139	101,893	149,325	125,573	181,411	132,864	145,013	209,298	235,669	165,146			
Frazier Lake	75,000	170,000	BEG	2008	101,845	94,680	134,642	148,884	136,059	200,296	219,093	122,585	129,227	201,161	169,627			
Saltery Lake <sup>d</sup>	15,000	35,000	BEG	2011	43,468	24,102	27,803	25,155	35,939	29,047	44,796	57,867	35,218	19,299	22,183			
Pasagshak River	3,000	8,000	LB SEG	2011	1,400	4,800	8,100	2,600	9,750	350	600	3,200	4,800	1,100	NA			
Buskin Lake	5,000	8,000	BEG	2011	7,757	9,800	11,982	8,565	16,189	13,976	8,719	11,584	7,222	4,284	12,297			
<b>COHO SALMON</b>																		
Pasagshak River	1,200	9,600	LB SEG	2011	2,385	1,971	1,083	3,132	1,648	4,934	1,790	737	701	3,186	NA			
Buskin River <sup>e</sup>	4,700	9,600	BEG	2014	8,176	6,239	5,342	4,906	4,401	6,730	NA	2,134	5,091	4,523 <sup>f</sup>	5,037			
Olds River	1,000	400	LB SEG	2011	697	NA	1,003	624	2,145	1,320	1,357	1,634	1,054	878	NA			
American River	400	400	LB SEG	2011	639	NA	1,061	427	841	1,595	530	500	410	78	NA			
<b>PINK SALMON</b>																		
Mainland District	250,000	1,000,000	SEG	2011	430,100	265,650	273,500	413,325	620,680	254,650	754,600	65,305	1,010,100	280,400	NA			
Kodiak Archipelago (odd year)	2,000,000	5,000,000	SEG	2011	4,707,89	4	2,506,714	5,111,049	4,450,711	2,733,282	5,151,731	5,079,016	4,874,342	NA				
Kodiak Archipelago (even year)	3,000,000	7,000,000	SEG	2011	3,378,483	3,378,483	3,378,483	1,699,281	1,699,281	1,699,281	1,699,281	1,699,281	1,699,281	1,699,281	1,699,281			
<b>CHUM SALMON</b>																		
Kodiak Archipelago <sup>g</sup>	101,000	101,000	LB SEG	2017	105,750	119,000	143,550	94,900	NA	84,700	171,800	89,700	184,500	115,100	45,700			

<sup>a</sup> Final escapements include estimated weir counts due to flooding at weir during king run. King salmon escapement estimated for Ayakulik River includes an estimated 20 king salmon harvested above the weir when a fishery has occurred as harvest estimates are typically not available for Ayakulik River sport harvest. King salmon sport harvest since 2011 is assumed to be zero as the fishery was closed to retention. All years include fish counts from post-weir aerial surveys. From 2011-2016 the BEG 4,000-7,000 fish and 4,800-9,600 from 2002-2010.

<sup>b</sup> Afognak (Litnik) River sockeye salmon escapement does not incorporate egg take removals.

<sup>c</sup> OEG for Upper Station River early run sockeye salmon was 25,000 from 1999-2013, the OEG was increased to 30,000 from 2014-2016 and managed for only if the department determined that the upper end of the Frazer escapement goal would be exceeded. The OEG was eliminated in 2017.

<sup>d</sup> Saltery Lake sockeye salmon escapements are weir counts minus fish removed for egg-takes.

<sup>e</sup> Buskin River coho salmon escapements include estimated weir counts due to flooding.

<sup>f</sup> Buskin River coho salmon escapement in 2015 was incomplete as the weir was washed out for much of the season.

<sup>g</sup> Buskin River coho salmon escapement preliminary for 2018 as escapements include 20% of the Statewide Harvest Survey estimate of Buskin River coho salmon estimated to be harvested above the weir.

<sup>h</sup> These are preliminary escapement estimates through 10/2/2019, and may include estimates for missed passage, but do not include reductions from harvest or egg takes in river. Also aerial surveys have not been completed in some cases.

<sup>i</sup> The Kodiak Archipelago aggregate chum salmon goal was revised in 2016, which included a different index approach than previously used. The values in this row are using the new index method, so values prior to 2017 should not be read relative to the previous goal.