

Submitted by Alaska Department of Fish and Game at the request of Vice Chair Ruffner
February 24, 2019

Proposal 147: Options, and substitute language, for revised ANS finding, sockeye salmon, Chignik River, Lagoon, and Lake Subarea

The current amount reasonably necessary for subsistence (ANS) was based on defining early-run sockeye salmon as any harvest before September 15 and late-run sockeye salmon as any harvest on or after September 15. At the time the ANS was established (1992 and modified in 2002), it was based on fishing patterns at the time: license holders and crew of commercial salmon permits could only subsistence fish prior to the first commercial opening and then not until after last commercial opening. Although non-commercial fishermen could subsistence fish throughout the summer, most residents did little subsistence fishing during this period. The board may choose to consider modifying the ANS to reflect the current run timing determination of 50% early-run sockeye salmon and 50% late-run sockeye salmon occurring in early to mid-July.

The current finding is based on the mean estimated harvest for the 8-year period 1993–2000 $\pm 30\%$. Table 2 summarizes estimated harvests by year and date, 1993–2018. The department is neutral on this allocative issue.

Current C&T and ANS finding (5 AAC 01.466)

[Highlight added]

- (a) The Alaska Board of Fisheries (board) finds that salmon and finfish other than salmon are customarily and traditionally taken or used for subsistence in the Chignik Area.
- (b) The board finds that the following amounts of salmon and other finfish are reasonably necessary for subsistence uses in the following locations:
 - (1) in the Perryville and Western Districts, combined:
 - (A) 1,400 - 2,600 coho salmon;
 - (B) 1,400 - 2,600 salmon, other than coho salmon;
 - (2) in the Chignik Bay, Central, and Eastern Districts, combined:
 - (A) 5,200 - 9,600 early-run sockeye salmon;
 - (B) 2,000 - 3,800 late-run sockeye salmon;
 - (C) 100 - 150 king salmon;
 - (D) 400 - 700 salmon, other than sockeye and king salmon;
 - (3) in the Chignik Area:
 - (A) 200 - 300 rainbow/steelhead trout;
 - (B) 15,200 - 22,800 pounds of usable weight of finfish, other than salmon.

[Note that the combined total for Chignik Bay, Central, and Eastern Districts sockeye salmon is 7,200–13,400 fish.]

Table 1 compares all the proposed ANS options with the current ANS range.

Option A

Use estimated harvests for the same 8-year period (1993–2000) as current findings are based on, but re-define early-run sockeye salmon as harvests before July 5, and late-run sockeye salmon as harvests on and after July 5. Using this 8-year period would result in a revised finding for early- and late-run sockeye salmon based on the same set of years as the current ANS findings for other salmon stocks in the management area.

	Range ($\pm 30\%$)			Range (rounded)	
	Mean	Low	High	Low	High
Early-run sockeye	5,918	4,143	7,694	4,100	7,700
Late-run sockeye	4,369	3,058	5,679	3,100	5,700

Option A Finding: 4,100 to 7,700 early-run sockeye salmon, and
3,100 to 5,700 late-run sockeye salmon

Option B

Use estimated harvests for years including and after 2001—which are the years *after* the range of years on which the current finding is based—but exclude years that did not meet the lower bound of the ANS. Years since 2001 may best reflect current demographic conditions in the local communities and any changes to subsistence harvest timing. Define early-run sockeye salmon as harvests before July 5, and late-run sockeye salmon as harvests on and after July 5. Exclude years in which the combined lower bound of the ANS ranges for early- and late-run sockeye salmon was not achieved: these harvests were lower than the 7,200 sockeye salmon that the board has identified as the minimum needed for subsistence uses. Harvests may not meet the minimum ANS for several reasons, including a poor run, poor weather, or economic conditions. For example, the ANS for sockeye salmon in the Chignik Bay District was likely not achieved in 2018 due to low returns and regulatory restrictions on subsistence fishing. Years in which this lower bound ANS was not harvested were 2004, 2006, 2008, 2009, 2012, 2013, 2014, 2017, and 2018.

	Range ($\pm 30\%$)			Range (rounded)	
	Mean	Low	High	Low	High
Early-run sockeye	4,165	2,916	5,415	2,900	5,400
Late-run sockeye	4,577	3,204	5,950	3,200	6,000

Option B Finding: 2,900 to 5,400 early-run sockeye salmon, and
3,200 to 6,000 late-run sockeye salmon

Option C

This option is the same as Option B, except harvest data from all years since 2001 (2001 through 2018) are used to determine the ANS ranges.

	Range ($\pm 30\%$)			Range (rounded)	
	Mean	Low	High	Low	High
Early-run sockeye	3,580	2,506	4,654	2,500	4,700
Late-run sockeye	3,803	2,662	4,944	2,700	4,900

Option C Finding: 2,500 to 4,700 early-run sockeye salmon
2,700 to 4,900 late-run sockeye salmon

Option D

Use estimated harvests for 1993–2018—1993 is the first year for which reliable, comprehensive harvest estimates are available for the entire management area and was the first year used when the board established the current ANS findings. Define early-run sockeye salmon as harvests before July 5 and late-run sockeye salmon as harvests on and after July 5. Exclude years in which the combined lower bound of the ANS ranges for early- and late-run sockeye salmon were not achieved: these harvests were lower than 7,200 sockeye salmon that the board has identified as the minimum needed for subsistence uses. Harvests may not meet the minimum ANS for several reasons, including a poor run, poor weather, or economic conditions. For example, the ANS for sockeye salmon in the Chignik Bay District was likely not achieved in 2018 due to low returns and regulatory restrictions on subsistence fishing. Years in which this lower bound ANS was not harvested were 2004, 2006, 2008, 2009, 2012, 2013, 2014, 2017, and 2018.

	Range ($\pm 30\%$)			Range (rounded)	
	Mean	Low	High	Low	High
Early-run sockeye	4,990	3,493	6,487	3,500	6,500
Late-run sockeye	4,479	3,135	5,822	3,100	5,800

Option D Finding: 3,500 to 6,500 early-run sockeye salmon
3,100 to 5,800 late-run sockeye salmon

Option E

Use estimated harvests for 1993–2018—1993 is the first year for which reliable, comprehensive harvest estimates are available for the entire management area and was the first year used when the board established the current ANS findings. Define early-run sockeye salmon as harvests before July 5, and late-run sockeye salmon as harvests on and after July 5. Use all years to define the ANS ranges.

	Range ($\pm 30\%$)			Range (rounded)	
	Mean	Low	High	Low	High
Early-run sockeye	4,299	3,009	5,589	3,000	5,600
Late-run sockeye	3,977	2,784	5,170	2,800	5,200

Option E Finding: 3,000 to 5,600 early-run sockeye salmon
2,800 to 5,200 late-run sockeye salmon

Option F

Take no action: do not change current ANS ranges.

Table 1. Overview of ANS ranges in each option, compared to current ANS finding

	Early-run sockeye		Late-run sockeye		All sockeye salmon	
	Low	High	Low	High	Low	High
Current finding	5,200	9,600	2,000	3,800	7,200	13,400
Option A	4,100	7,700	3,100	5,700	7,200	13,400
Option B	2,900	5,400	3,200	6,000	6,100	11,400
Option C	2,500	4,700	2,700	4,900	5,200	9,600
Option D	3,500	6,500	3,100	5,800	6,600	12,300
Option E	3,000	5,600	2,800	5,200	5,800	10,800

Table 2.— Estimated subsistence sockeye salmon harvests in the Chignik River, Lagoon, and Lake subarea, by date and year.

Year	Harvest before July 5	Harvest July 5 through Sept. 15	Harvest after Sept. 15	Subtotal, all harvest on or after July 5	Total, all harvests
1993	9,235	1,141	4,214	5,355	14,589
1994	7,322	3,221	2,676	5,898	13,220
1995	6,095	432	2,956	3,388	9,483
1996	3,318	1,664	1,927	3,591	6,909
1997	6,959	1,884	3,935	5,819	12,778
1998	3,804	1,153	2,383	3,535	7,340
1999	5,095	1,709	1,965	3,674	8,769
2000	5,518	1,419	2,270	3,689	9,207
2001	4,028	1,377	2,859	4,236	8,264
2002	5,300	2,467	1,958	4,425	9,725
2003	7,055	1,941	1,739	3,679	10,735
2004	3,335	1,171	1,233	2,404	5,739
2005	3,524	3,018	709	3,726	7,250
2006	3,575	2,383	928	3,311	6,886
2007	5,093	1,623	2,509	4,132	9,224
2008	2,650	3,600	698	4,298	6,948
2009	2,973	2,240	1,456	3,696	6,670
2010	2,909	3,151	1,639	4,790	7,698
2011	3,195	5,230	1,528	6,759	9,953
2012	2,145	1,666	669	2,335	4,480
2013	3,183	2,668	503	3,171	6,354
2014	3,116	1,835	1,715	3,551	6,666
2015	3,777	3,760	940	4,700	8,477
2016	2,606	3,786	959	4,744	7,350
2017	4,409	1,259	544	1,803	6,212
2018	1,563	2,284	408	2,692	4,255
5-year avg (2013-2017)	3,418	2,662	932	3,594	7,012
10-year avg (2008-2017)	3,096	2,920	1,065	3,985	7,081
25-year avg (1993-2017)	4,409	2,232	1,796	4,028	8,437

Source ADF&G Division of Subsistence.

Substitute language: revised Chignik Bay, Central, and Eastern Districts, combined, ANS finding (5 AAC 01.466)

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(2) in the Chignik Bay, Central, and Eastern Districts, combined:

(A) X,XXX – X,XXX early-run sockeye salmon, and

(B) X,XXX to X,XXX late-run sockeye salmon

[(A) 5,200 - 9,600 EARLY-RUN SOCKEYE SALMON;

(B) 2,000 - 3,800 LATE-RUN SOCKEYE SALMON];

(C) 100 - 150 king salmon;

(D) 400 - 700 salmon, other than sockeye and king salmon;

(3) in the Chignik Area:

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