Table 1. Upper end of potential OEGs for Nushagak River sockeye salmon as a function of run size percent, and corresponding harvest rates should the upper end of the OEG be reached. Bottom part of this table shows the relative size of the upper end of the OEG compared to the upper end of the Sustainable Escapement Goal (SEG).

| Nushagak Total Run Size (M) | Nushagak Sliding OEG upper Bound | | | | Harvest Rates Across Range of % if the Upper End of OEG was Reached | | | | |
| | Upper End of OEG Across Range of % of Total Run | | | | | | | | |
	5%	10%	15%	20%	5%	10%	15%	20%	25%
≤2.5	-	-	-	-					
3	1,050,000	1,200,000	1,350,000	1,500,000	65%	60%	55%	50%	45%
4	1,100,000	1,300,000	1,500,000	1,700,000	73%	68%	63%	58%	53%
5	1,150,000	1,400,000	1,650,000	1,900,000	77%	72%	67%	62%	57%
6	1,200,000	1,500,000	1,800,000	2,100,000	80%	75%	70%	65%	60%
7	1,250,000	1,600,000	1,950,000	2,300,000	82%	77%	72%	67%	62%
8	1,300,000	1,700,000	2,100,000	2,500,000	84%	79%	74%	69%	64%
9	1,350,000	1,800,000	2,250,000	2,700,000	85%	80%	75%	70%	65%
10	1,400,000	1,900,000	2,400,000	2,900,000	86%	81%	76%	71%	66%
12	1,500,000	2,100,000	2,700,000	3,300,000	88%	83%	78%	73%	68%
14	1,600,000	2,300,000	3,000,000	3,700,000	89%	84%	79%	74%	69%
16	1,700,000	2,500,000	3,300,000	4,100,000	89%	84%	79%	74%	69%
18	1,800,000	2,700,000	3,600,000	4,500,000	90%	85%	80%	75%	70%

Percentage of the Upper End of the OEG relative to the Upper End of the SEG.

Run Size (M)	5%	10%	15%	20%
≤2.5	-	-	-	-
3	117%	133%	150%	167%
4	122%	144%	167%	189%
5	128%	156%	183%	211%
6	133%	167%	200%	233%
7	139%	178%	217%	256%
8	144%	189%	233%	278%
9	150%	200%	250%	300%
10	156%	211%	267%	322%
12	167%	233%	300%	367%
14	178%	256%	333%	411%
16	189%	278%	367%	456%
18	200%	300%	400%	500%

Table 2. Upper end of potential OEGs for Wood River sockeye salmon as a function of run size percent, and corresponding harvest rates should the upper end of the OEG be reached. Bottom part of this table shows the relative size of the upper end of the OEG compared to the upper end of the Sustainable Escapement Goal (SEG).

Wood Total Run Size (M)	Wood Sliding OEG upper Bound Upper End of OEG Across Range of % of Total Run				Harvest Rates Across Range of % to Define OEG if the Upper End of OEG			
	5%	10%	15%	20%	5%	10%	15%	20%
<u><</u>7.5	-	-	-	-				
8	2,200,000	2,600,000	3,000,000	3,400,000	73%	68%	63%	58%
9	2,250,000	2,700,000	3,150,000	3,600,000	75%	70%	65%	60%
10	2,300,000	2,800,000	3,300,000	3,800,000	77%	72%	67%	62%
12	2,400,000	3,000,000	3,600,000	4,200,000	80%	75%	70%	65%
14	2,500,000	3,200,000	3,900,000	4,600,000	82%	77%	72%	67%
16	2,600,000	3,400,000	4,200,000	5,000,000	84%	79%	74%	69%
18	2,700,000	3,600,000	4,500,000	5,400,000	85%	80%	75%	70%
20	2,800,000	3,800,000	4,800,000	5,800,000	86%	81%	76%	71%
22	2,900,000	4,000,000	5,100,000	6,200,000	87%	82%	77%	72%
24	3,000,000	4,200,000	5,400,000	6,600,000	88%	83%	78%	73%

Percentage of the Upper End of the OEG relative to the Upper End of the SEG.

Run Size (M)	5%	10%	15%	20%
<7.5	-	-	-	-
8	122%	144%	167%	189%
9	125%	150%	175%	200%
10	128%	156%	183%	211%
12	133%	167%	200%	233%
14	139%	178%	217%	256%
16	144%	189%	233%	278%
18	150%	200%	250%	300%
20	156%	211%	267%	322%
22	161%	222%	283%	344%
24	167%	233%	300%	367%

Table 3. Potential Nushagak River sockeye salmon triggers across run sizes from 2.5 million to 18 million. The highlighted column is the trigger recommended by the committee for use in the Stock of Concern Management Plan. The highlighted row at 7 million represents what the trigger would be in 2023 given the preseason forecast. For perspective, the second part of the table depicts the percentage the triggers represent of the upper end of the sustainable escapement goal (SEG). For additional perspective, shading in the bottom right of each table represent when the trigger would be greater than 100% of the upper end of the current sustainable escapement goal (SEG).

	Number of Sockeye Trigger as a Percent of Preseason Forecast of Run Size						
Total Run (M)	3%	4%	5%	6%	7%	8%	9%
2.5	75,000	100,000	125,000	150,000	175,000	200,000	225,000
3	90,000	120,000	150,000	180,000	210,000	240,000	270,000
4	120,000	160,000	200,000	240,000	280,000	320,000	360,000
5	150,000	200,000	250,000	300,000	350,000	400,000	450,000
6	180,000	240,000	300,000	360,000	420,000	480,000	540,000
7	210,000	280,000	350,000	420,000	490,000	560,000	630,000
8	240,000	320,000	400,000	480,000	560,000	640,000	720,000
9	270,000	360,000	450,000	540,000	630,000	720,000	810,000
10	300,000	400,000	500,000	600,000	700,000	800,000	900,000
11	330,000	440,000	550,000	660,000	770,000	880,000	990,000
12	360,000	480,000	600,000	720,000	840,000	960,000	1,080,000
13	390,000	520,000	650,000	780,000	910,000	1,040,000	1,170,000
14	420,000	560,000	700,000	840,000	980,000	1,120,000	1,260,000
15	450,000	600,000	750,000	900,000	1,050,000	1,200,000	1,350,000
16	480,000	640,000	800,000	960,000	1,120,000	1,280,000	1,440,000
17	510,000	680,000	850,000	1,020,000	1,190,000	1,360,000	1,530,000
18	540,000	720,000	900,000	1,080,000	1,260,000	1,440,000	1,620,000

	Percentage of the Upper End of the SEG that the Trigger Represents Across Trigger %						
Total Run (M)	3%	4%	5%	6%	7%	8%	9%
2.5	8	11	14	17	19	22	25
3	10	13	17	20	23	27	30
4	13	18	22	27	31	36	40
5	17	22	28	33	39	44	50
6	20	27	33	40	47	53	60
7	23	31	39	47	54	62	70
8	27	36	44	53	62	71	80
9	30	40	50	60	70	80	90
10	33	44	56	67	78	89	100
12	37	49	61	73	86	98	110
14	40	53	67	80	93	107	120
16	43	58	72	87	101	116	130
18	47	62	78	93	109	124	140

* The complete border around 47 in the table represents using 6% to define the trigger and the 2023 forecast of 7 million, i.e., the trigger would be 47% of the upper bound of the SEG.

Table 4. Potential Wood River sockeye salmon triggers across run sizes from 7 million to 24 million. The highlighted column is the trigger recommended by the committee for use in the Stock of Concern Management Plan. The highlighted row at 8 million represents what the trigger would be in 2023 given the preseason forecast. For perspective, the second part of the table depicts the percentage the triggers represent of the <u>upper</u> end of the sustainable escapement goal (SEG). For additional perspective, shading in the bottom right of each table represent when the trigger would be greater than 100% of the upper end of the current sustainable escapement goal (SEG).

Total Run (M)	Number of Sockeye Trigger as a Percent of Preseason Forecast of Run Size							
	3%	4%	5%	6%	7%	8%	9%	10%
7	210,000	280,000	350,000	420,000	490,000	560,000	630,000	700,000
8	240,000	320,000	400,000	480,000	560,000	640,000	720,000	800,000
9	270,000	360,000	450,000	540,000	630,000	720,000	810,000	900,000
10	300,000	400,000	500,000	600,000	700,000	800,000	900,000	1,000,000
12	360,000	480,000	600,000	720,000	840,000	960,000	1,080,000	1,200,000
14	420,000	560,000	700,000	840,000	980,000	1,120,000	1,260,000	1,400,000
16	480,000	640,000	800,000	960,000	1,120,000	1,280,000	1,440,000	1,600,000
18	540,000	720,000	900,000	1,080,000	1,260,000	1,440,000	1,620,000	1,800,000
20	600,000	800,000	1,000,000	1,200,000	1,400,000	1,600,000	1,800,000	2,000,000
22	660,000	880,000	1,100,000	1,320,000	1,540,000	1,760,000	1,980,000	2,200,000
24	720,000	960,000	1,200,000	1,440,000	1,680,000	1,920,000	2,160,000	2,400,000

Total Run (M)	Percentage of the Upper End of the SEG that the Trigger Represents Across Trigger %							
	3%	4%	5%	6%	7%	8%	9%	10%
7	12	16	19	23	27	31	35	39
8	13	18	22	27	31	36	40	44
9	15	20	25	30	35	40	45	50
10	17	22	28	33	39	44	50	56
12	20	27	33	40	47	53	60	67
14	23	31	39	47	54	62	70	78
16	27	36	44	53	62	71	80	89
18	30	40	50	60	70	80	90	100
20	33	44	56	67	78	89	100	111
22	37	49	61	73	86	98	110	122
24	40	53	67	80	93	107	120	133

* The complete border around 27 in the table represents using 6% to define the trigger and the 2023 forecast of 8 million, i.e., the trigger would be 27% of the upper bound of the SEG.

Table 5. Nushagak River sockeye salmon total run, harvest, escapement, and harvest rates used to compute reference points for what constitutes above and below "average" run sizes to compute reference points for early season triggers and the upper end of OEGs in the regulatory proposals for Nushagak River Chinook salmon.

Year	Total Run	Harvest	Escapement	Harvest Rate
1963	452,398	217,577	234,821	48%
1964	266,355	131,502	134,853	49%
1965	582,186	326,393	255,794	56%
1966	411,585	178,007	233,578	43%
1967	139,629	65,626	74,003	47%
1968	218,458	76,098	142,360	35%
1969	184,392	88,587	95,805	48%
1970	865,760	412,868	452,892	48%
1971	674,291	361,592	312,699	54%
1972	87,174	47,324	39,851	54%
1973	417,125	206,524	210,601	50%
1974	252,195	48,005	204,190	19%
1975	1,053,798	221,705	832,093	21%
1976	1,083,587	563,285	520,303	52%
1977	1,096,783	485,195	611,588	44%
1978	1,431,832	697,792	734,040	49%
1979	1,048,800	497,528	551,272	47%
1980	5,389,939	1,720,803	3,669,136	32%
1981	3,875,794	2,756,921	1,118,873	71%
1982	4,067,178	3,402,598	664,580	84%
1983	2,159,924	1,713,079	446,845	79%
1984	1,340,820	685,081	655,739	51%
1985	995,643	444,324	551,319	45%
1986	2,379,338	1,284,097	1,095,241	54%
1987	1,380,200	951,018	429,182	69%
1988	1,090,076	555,616	534,460	51%
1989	1,190,738	622,875	567,863	52%
1990	1,804,526	1,052,013	752,513	58%
1991	1,628,967	1,084,218	544,748	67%
1992	1,888,874	1,120,058	768,816	59%
1993	2,580,049	1,789,122	790,927	69%
1994	1,436,463	873,129	563,334	61%
1995	810,995	499,859	311,136	62%
1996	1,623,169	1,066,111	557,057	66%
1997	817,647	405,056	412,591	50%
1998	991,560	484,028	507,532	49%
1999	451,807	106,835	344,972	24%

Table 5. Continued

Year	Total Run	Harvest	Escapement	Harvest Rate
2000	1,344,618	898,332	446,286	67%
2001	2,093,785	1,196,673	897,112	57%
2002	691,785	342,630	349,155	50%
2003	2,409,660	1,767,567	642,093	73%
2004	2,062,469	1,518,596	543,872	74%
2005	3,672,976	2,566,273	1,106,703	70%
2006	2,731,826	2,183,416	548,410	80%
2007	2,469,463	1,951,422	518,041	79%
2008	1,908,901	1,416,355	492,546	74%
2009	2,077,746	1,593,597	484,149	77%
2010	1,206,251	737,555	468,696	61%
2011	1,167,743	739,552	428,191	63%
2012	1,037,757	605,319	432,438	58%
2013	2,009,704	1,115,556	894,148	56%
2014	1,510,012	891,535	618,477	59%
2015	2,475,985	1,679,301	796,684	68%
2016	2,575,667	1,895,155	680,512	74%
2017	8,199,368	5,347,060	2,852,308	65%
2018	9,602,179	8,354,719	1,247,460	87%
2019	4,306,596	3,597,165	709,431	84%
2020	3,625,517	2,397,458	1,228,059	66%
2021	15,070,742	10,373,443	4,697,299	69%
2022	16,394,969	12,939,697	3,455,272	79%
Averages				
All years	2,313,596			
2003-2022	4,325,777			
1980-2022	2,989,522			
Medians				
All years	1,406,016			
2003-2022	2,472,724			
1980-2022	2,009,704			

Table 6. Wood River sockeye salmon total run, harvest, escapement, and harvest rates used to compute reference points for what constitutes above and below "average" run sizes to compute reference points for early season triggers and the upper end of OEGs.

Year	Total Run	Harvest	Escapement	Harvest Rate
1963	1,597,997	876,593	721,404	55%
1964	2,413,804	1,337,692	1,076,112	55%
1965	1,302,507	627,351	675,156	48%
1966	2,500,621	1,291,939	1,208,682	52%
1967	1,150,410	634,638	515,772	55%
1968	1,547,965	898,621	649,344	58%
1969	1,351,285	746,947	604,338	55%
1970	2,238,537	1,076,573	1,161,964	48%
1971	2,063,662	1,212,460	851,202	59%
1972	998,550	567,948	430,602	57%
1973	735,060	404,586	330,474	55%
1974	2,244,579	535,743	1,708,836	24%
1975	1,773,847	503,731	1,270,116	28%
1976	1,711,907	894,899	817,008	52%
1977	812,892	251,064	561,828	31%
1978	4,706,520	2,439,282	2,267,238	52%
1979	4,185,628	2,479,276	1,706,352	59%
1980	6,143,342	3,174,302	2,969,040	52%
1981	6,009,033	4,775,715	1,233,318	79%
1982	4,093,670	3,117,200	976,470	76%
1983	4,106,631	2,745,663	1,360,968	67%
1984	2,349,712	1,346,920	1,002,792	57%
1985	1,527,764	588,764	939,000	39%
1986	2,106,060	1,287,408	818,652	61%
1987	3,517,785	2,180,613	1,337,172	62%
1988	2,000,002	1,133,224	866,778	57%
1989	3,099,742	1,913,332	1,186,410	62%
1990	3,195,123	2,125,683	1,069,440	67%
1991	4,506,271	3,346,351	1,159,920	74%
1992	3,071,690	1,785,440	1,286,250	58%
1993	4,748,132	3,572,006	1,176,126	75%
1994	3,696,594	2,224,704	1,471,890	60%
1995	4,938,613	3,456,451	1,482,162	70%
1996	5,959,844	4,310,246	1,649,598	72%
1997	3,879,034	2,366,638	1,512,396	61%
1998	4,421,018	2,665,250	1,755,768	60%
1999	7,403,081	5,890,655	1,512,426	80%

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Table 6. Continued

2000	6,541,118	5,241,092	1,300,026	80%
2001	4,644,099	3,185,367	1,458,732	69%
2002	3,859,722	2,576,040	1,283,682	67%
2003	6,233,372	4,773,590	1,459,782	77%
2004	6,430,417	4,887,025	1,543,392	76%
2005	5,881,534	4,384,984	1,496,550	75%
2006	12,640,215	8,632,113	4,008,102	68%
2007	7,794,243	6,266,157	1,528,086	80%
2008	6,802,770	5,078,094	1,724,676	75%
2009	6,673,679	5,354,447	1,319,232	80%
2010	8,809,667	7,005,323	1,804,344	80%
2011	4,949,206	3,851,200	1,098,006	78%
2012	2,698,060	1,933,849	764,211	72%
2013	3,286,043	2,102,695	1,183,348	64%
2014	7,166,061	4,401,447	2,764,614	61%
2015	5,019,839	3,078,365	1,941,474	61%
2016	6,384,575	5,074,868	1,309,707	79%
2017	11,287,414	7,013,190	4,274,224	62%
2018	22,680,173	15,172,919	7,507,254	67%
2019	12,340,740	10,267,464	2,073,276	83%
2020	8,004,915	5,761,029	2,243,886	72%
2021	12,667,858	8,257,702	4,410,156	65%
2022	12,454,475	8,706,863	3,747,612	70%
Averages				
All years	4,989,318			
2003-2022	8,510,263			
1980-2022	6,186,589			
Medians				
All years	4,146,130			
2003-2022	6,984,416			
1980-2022	5,019,839			