ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

NEWS RELEASE



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2017 NORTON SOUND SALMON SEASON SUMMARY

COMMERCIAL SALMON FISHERY

Well above average to near record runs of chum, pink, sockeye and coho salmon highlighted the 2017 fishery. The coho salmon harvest was a record and the chum salmon harvest was the ninth highest on record and the best since 1983. The sockeye salmon harvest although a small portion of the overall harvest was the second highest in history at nearly 3,000 fish. The pink salmon run was one of the greatest runs for an odd-numbered year and pink salmon escapements surpassed many even-numbered year escapements. However, there was minimal interest from the only buyer in purchasing pink salmon. Once again the king salmon run was poor and no commercial fishing targeting king salmon was allowed.

The commercial fishery started in late June in Subdistricts 2–4 (Golovin, Elim and Koyuk) with one 24-hour fishing period targeting chum salmon. Likewise Subdistricts 5 and 6 (Shaktoolik and Unalakleet) followed with a 24-fishing period targeting chum salmon beginning July 1 and Subdistrict 1 (Nome) had a 48-hour fishing period beginning July 2. Well above average catches of chum salmon and above average escapement enabled the department to allow fishing whenever the buyer was able to handle more fish. During the first half July fishing was limited to 48 hours a week, with either 12-hour or 24-hour fishing periods and by mid-July the buyer had the capacity for two 48-hour fishing periods a week in all subdistricts. In the first week of August coho salmon catches had indicated a well above average run and fishing time was expanded to one 72-hour fishing period and one 48-hour fishing period a week in all subdistricts. Because of capacity concerns the buyer reduced fishing time to 48 hours from 72 hours for one fishing period the second week of August, but resumed the previous schedule in the third week of August. Record coho salmon catches in Nome and Elim and well above average escapement allowed commercial fishing to be extended for two weeks in those subdistricts and for one week in Shaktoolik and Unalakleet. Golovin and Koyuk had moderate catches of coho salmon and closed to fishing on August 31 and the other subdistricts closed for the season on September 15.

Table 1 lists the Norton Sound salmon current year and historical commercial harvests relative to the recent 5-year (2012–2016) and 10-year (2007–2016) averages. The combined commercial harvest of all salmon species was 378,561 fish including those fish retained for personal use and ranked second highest in the last ten seasons in Norton Sound. There were 139 commercial permits fished in 2017 and that was two less permits fished than last year, but was the second highest total since 1993. The 2017 fishery value to the fishers of \$2,788,316 was a record and was the seventh year in the last eight years that the value exceeded one million dollars. Previous to 2010 the last time the value of the fishery exceeded one million dollars was in the 1980s. Adjusting for inflation only 1978 (\$3.4 million) and 1979 (\$2.9 million) had a higher fishery value than 2017. This summary should be considered preliminary and will be updated with additions and corrections in subsequent reports.

The record coho salmon catch of 191,254 fish was the majority of the Norton Sound salmon harvest in 2017 (Table 2) and was 24% above the previous record catch in 2015 and over 200% above the recent 5-year and 10-year averages. The chum salmon catch of 163,473 fish was the highest since 1983 and ranked ninth highest in history (Table 3).

Only one salmon buyer operated in Norton Sound during the 2017 season. The Unalakleet fish plant operated by Norton Sound Seafood Products (NSSP) was the base of commercial fisheries operations. Salmon were both delivered to the Unalakleet dock and tendered from all other subdistricts, except from the Nome Subdistrict. The Nome Subdistrict catch was processed at the NSSP plant in Nome and some Golovin and Elim catches were also processed in Nome.

The average price paid for king salmon was \$3.00/lb, \$1.40/lb for sockeye salmon, \$1.40/lb for coho salmon, \$0.03/lb for pink salmon, and \$.79/lb for chum salmon.

SUBSISTENCE SALMON FISHERY

Subsistence salmon fishers in the Port Clarence District and Subdistricts 1–3 (Nome, Golovin, and Moses Point) were required to possess a subsistence permit for each household that fished in these locations. The permits identify the type of gear used, and the bag limit, that is specific to each body of water. In addition, the permit contains a catch calendar where the permit holder records catches in numbers of each species of fish for each day fished. If the subsistence fishers have filled their harvest limit in one river they can fish in another river.

The only places where there are limits on subsistence salmon harvest are in the Nome Subdistrict, and Pilgrim River and Salmon Lake in the Port Clarence District. Salmon limits have been in place in Nome Subdistrict since 1985, but have been removed in a number of rivers with the improving chum salmon runs in recent years. Subsistence permits are important to management because they identify users and harvests, but the actual catch information cannot be compiled in most circumstances until well after the season when the permits are returned. In southern Norton Sound, villages are surveyed to estimate the subsistence harvest and likewise this information is not available until well after the season.

SEASON SUMMARY BY SUBDISTRICT

Nome - Subdistrict 1

This was the fifth consecutive season that commercial fishing was allowed since the mid–90s. There were 6 permit holders that fished this year and that was the most since fishing resumed in 2013, but the effort is only a little more than half of any other district. Permit holders fished during 17 of the 18 fishing periods, forgoing fishing during the last fishing period of the year. The coho salmon harvest of 5,967 fish was a record and over five times higher than the previous record in 1982. The sockeye salmon harvest of 504 fish was also a record and over double last year's record catch. The chum salmon harvest of 6,769 fish was the highest since 1986 and ranked eleventh highest in history.

In recent years subsistence fishing time has been liberalized in Nome Subdistrict by increasing marine gillnet fishing time from three days a week to five days a week west of Cape Nome and seven days a week east of Cape Nome. Also, fresh water gillnet fishing time has been increased from two 48-hour fishing periods a week to five days a week fishing.

For over 40 years subsistence salmon permits have been required for the Nome Subdistrict and during the 2017 season 532 permits were issued and was second only to the record 591 permits issued last year.

Observations during the season indicate that the Nome River was once again the river that had the most fishing effort and had the greatest pink salmon escapement of any river in the subdistrict with over 717,000 fish counted through the Nome River weir, a record for an odd-numbered year.

Golovin - Subdistrict 2

This season there was a change in the usual fishing schedule of two 48-hour fishing periods a week. Because of capacity issues the buyer requested 48 hours of fishing time a week until mid-July. Periods were either 12 or 24 hours in length until July18 when the usual two 48-hour fishing periods a week resumed. In August there were two fishing periods and fishing time was increased from 48 hours to 72 hours.

The chum salmon harvest of 7,155 fish was the fifth highest harvest since fishing resumed in 2008, but only three-quarters of the recent 5-year average harvest. Coho salmon catches were well below average and the harvest of 707 fish was the third lowest since 2008 and only one-quarter of the recent 5-year average harvest.

Subsistence fishing was allowed to continue seven days a week with no catch limits throughout the season.

The Fish River tower was in its fourth year of operation and 161,333 chum salmon and nearly 1.4 million pink salmon were counted. The tower crew suspended operations on August 20 because of high water and the final count was 11,452 coho salmon and escapement was expected to be

reached. However, an aerial survey of Niukluk River and Ophir Creek was not completed because of high water. The aerial survey escapement goal range of is 750-1,600 coho salmon (Table 4).

Elim - Subdistrict 3

The Elim Subdistrict commercial fishing schedule was the same as the Golovin Subdistrict, but fishing was extended for two additional weeks because of record coho salmon catches and well above average escapement at Kwiniuk River.

The pink salmon run was estimated to be one of the greatest on record for an odd-numbered year, but there were no directed pink salmon fishing periods. The chum salmon run was well above average, but the catch of 11,765 fish was only sixth highest in the last 20 years likely because of limited fishing time the first half of July. The coho salmon run was one of the greatest on record and the harvest of 19,405 fish was a record..

In 2017 the escapement past the Kwiniuk River tower was 54 king salmon, 33,440 chum salmon, 508,278 pink salmon, and 13,593 coho salmon. King salmon passage was below the escapement goal of 250 fish for the second year in a row, but the chum salmon passage well above the escapement goal range of 11,500-23,000 fish. Pink salmon escapement was second highest for an odd-numbered year since counting began in 1965. Counting at the Kwiniuk River tower has only extended into coho salmon season for the last 17 years and this year was the third highest escapement on record.

Norton Bay - Subdistrict 4

To protect king salmon the department restricted subsistence fishing in Norton Bay Subdistrict to two 48-hour fishing periods a week during the month of June. The first fishing period each week had a restriction of 6 inches or smaller mesh size and the second period had no mesh size restrictions.

Like Golovin the commercial fishing schedule was the same and closed at the end of August. After the second week of July fishing periods were two 48-hour fishing periods a week and two periods that were extended to 72 hours in August.

The harvest of 31,653 chum salmon ranked second highest and the harvest of 2,989 coho salmon ranked seventh highest in history. However, the coho salmon harvest was fourth lowest in the last 10 years. The incidental catches of 47 king salmon, 3,636 pink salmon and 265 sockeye salmon ranked seventeenth, twelfth, and second highest, respectively in history.

The Inglutalik River counting tower has been operational since 2011, but in most years high water prevents operating the project during coho salmon season. This year was no exception with the project unable to operate after July. Escapements counts were 2,226 king salmon, 89,632 chum salmon, 1,574,463 pink salmon and 2,457 coho salmon. The chum and pink salmon counts were records. The king count was considered questionable as there were three separate aerial surveys as the season progressed and three department surveyors had counts of 84 kings and 94 kings and 206 kings. The last survey occurred after 2,226 kings had been counted past the tower.

Shaktoolik and Unalakleet - Subdistricts 5 and 6

Both the Shaktoolik and Unalakleet Subdistricts share a common commercial fishing boundary and management actions typically encompass both subdistricts because salmon tend to intermingle and the harvest in one subdistrict affects the movement of fish in the adjacent subdistrict. Commercial fishing is typically only allowed after king salmon have been observed in increasing numbers in subsistence fishing nets and the department is confident the midpoint of the king salmon escapement goal range of 1,200-2,600 fish will be reached at the North River counting tower. If the department does not project that the midpoint of king salmon escapement goal range will be reached then no commercial gillnet fishing periods are allowed for any species until after June 30.

The department forecast for 2017 was for a below average run of king salmon and additional restrictions on subsistence fishing would be required to reach sufficient escapement. After department staff met with residents of Shaktoolik and Unalakleet, a schedule was set for subsistence salmon fishing to close in all marine and fresh waters of both Shaktoolik and Unalakleet Subdistricts. One 36-hour fishing period with gillnets restricted to 6 inches or smaller mesh size was allowed each week in the marine waters during the remainder of June. In July subsistence fishing time in marine waters was increased to two 48-hour fishing periods a week with restricted mesh and beach seining was allowed in the rivers 7 days a week with all king salmon required to be released. The first in-river gillnet fishing period in both subdistricts was a 24-hour fishing period on July 7 with restricted mesh. On July 10 all fresh waters, except for the Unalakleet River were open to subsistence fishing and on July 13 all marine waters and the Unalakleet River were open to subsistence fishing for the remainder of the season.

Commercial fishing targeting chum salmon began on July 1 with a 24-hour fishing period and all fishing periods throughout the season occurred concurrent for both subdistricts. The buyer had capacity issues with the number of chum caught and after a second 24-hour fishing period fishing time was changed to four 12-hour fishing periods the following week. Beginning on July 18 the usual two 48-hour fishing periods began and during silver season fishing time was extended during five periods to 72 hours.

Commercial catches for chum salmon in both subdistricts were nearly the highest on record with 41,664 fish caught in Shaktoolik and 64,416 fish caught in Unalakleet (Table 2). The chum harvest in Shaktoolik was the third highest in history and in Unalakleet was the second highest in history.

The commercial coho salmon catch for both subdistricts was a record with 50,299 fish caught in Shaktoolik and 111,830 fish caught in Unalakleet. Although an incidental catch, the sockeye salmon harvest was the second highest on record in both subdistricts with 467 fish caught in Shaktoolik and 1,029 fish caught in Unalakleet (Table 2).

Despite a huge pink salmon run there was little interest in targeting pink salmon and in early July the buyer reduced the price to \$0.01/pound and gave the pink salmon back to the permit holders for their use.

Port Clarence District

Port Clarence is the salmon district immediately to the northwest of Norton Sound and has a larger run of sockeye salmon than Norton Sound. Sockeye salmon return to Salmon Lake via Pilgrim River which is easily accessible by a road from Nome.

The sockeye salmon run was one of the best on record and the department waived subsistence catch limits early in the season. There were 487 Pilgrim River subsistence permits issued and only last year had a higher number of permits issued (508). The majority of the Pilgrim River harvest is by seines.

Port Clarence also has large summer and fall chum salmon runs that are harvested by residents of Teller and Brevig Mission using gillnets in marine waters.

ESCAPEMENT

Table 4 summarizes escapement assessments for the major index river systems of the Norton Sound and Port Clarence Districts in 2017. These assessments are often qualitative and relative to historical escapement sizes.

Department escapement projects in Norton Sound include a counting tower on the Kwiniuk River and weirs on the Nome River and Solomon River. Norton Sound Economic Development Corporation (NSEDC) assists with staffing at the Kwiniuk River and Nome River projects.

Eight additional counting projects were also operated in the management area this season. The Eldorado River and Pilgrim River had weir projects and the Fish, Inglutalik, North and Shaktoolik Rivers had counting towers which were setup and operated by NSEDC. A cooperative weir project was operated on Snake River by the department and NSEDC. Also, a cooperative weir project was operated on the Unalakleet River by the department with assistance from NSEDC and Native Village of Unalakleet. Funding for the Unalakleet River weir project was provided by United States Fish & Wildlife Service – Office of Subsistence Management.

High water prevented aerial surveys during most of the coho salmon season. As usual, the Nome Subdistrict streams received the most intensive assessment efforts because salmon stocks local to the Nome area are easily accessed by road system, and are exposed to intensive subsistence and sport fishing pressure.

King Salmon

The 2017 king salmon run was weak and subsistence fishing restrictions were in effect in southern Norton Sound. The king salmon escapement goal of 250 fish at Kwiniuk River counting tower was not reached for the second year in row and only 54 fish were counted.

The North River count of 1,044 king salmon fell below the escapement goal range of 1,200–2,600 fish. This was the second year in a row the king salmon goal was not reached. However, the Unalakleet River weir had the highest count (2,934) of king salmon in the 8-year project history.

Chum Salmon

Chum salmon escapement goal ranges were exceeded in all rivers with counting projects and those rivers that had aerial surveys flown. Because of a lack of aircraft during certain times this summer not all rivers were surveyed, but based on commercial and subsistence catches and reports of chum salmon in the rivers from locals there were no concerns with chum salmon escapement anywhere in Norton Sound. The Nome River weir had a record count of 8,340 chum salmon in the 25-year project history.

Pink Salmon

For over 30 years pink salmon returns to Norton Sound have followed an odd and even year cycle with the even-numbered year returns typically much higher in number than the odd-numbered years. In 2017, there were near record to record escapements for a number of rivers for an odd-numbered year. The Unalakleet River weir had a record count of over 6 million pink salmon and that count was a record for both even- and odd-numbered years. Nome River pink salmon count was 717,770 fish and was a record for an odd-numbered year and trailed only 2004, 2008 and 2016 when over a million pink salmon were counted in each of those even-numbered years. The Kwiniuk River pink salmon count was 508,278 fish and for an odd-numbered year was second highest and only trailed the 566,534 fish counted in 1981. The North River pink salmon count of 1,464,204 fish was a record for both even and odd-numbered years in the 22-year project history. There are three pink salmon escapement goals in Norton Sound and those goals at Kwiniuk (8,400), Nome (13,000), and North (25,000) rivers were easily exceeded.

Coho Salmon

Coho salmon are found in nearly all of the chum salmon producing streams throughout Norton Sound with the primary commercial contributors being the Unalakleet and Shaktoolik Rivers. Because inclement weather is normally experienced during August and September, escapement data can be somewhat incomplete. Streams in the northern subdistricts of Norton Sound are typically surveyed. Although no coho salmon escapement goals have yet been established in Nome Subdistrict, the Nome River weir count of 4,983 coho salmon was third only to the 2005 (5,848) and 2006 (8,308) coho salmon counts. There are three aerial survey goals in Norton Sound. Niukluk River and Ophir Creek has a combined aerial survey escapement goal range of 750–1,600 coho salmon. Kwiniuk River has an aerial survey goal range of 550–1,100 coho salmon. The North River goal was likely met, but no surveys were flown because of high water conditions. Escapement goals were believed to have been reached based on tower counts. The Fish River counting tower downstream of Niukluk River and Ophir Creek had a count of 11,452 coho salmon and past radio telemetry studies have estimated one-third of Fish River tagged coho salmon spawn in the Niukluk River-Ophir Creek drainage. The Kwiniuk River counting tower had a count of

13,593 coho salmon and was the third highest count on record. The North River counting tower crew was only able to count three days in August because of high water and the final count was 2,446 coho salmon. The historical average percentage of the run past the tower during the time the tower was not operational 75% of the coho salmon run.

Sockeye Salmon

Sockeye salmon are typically found in small numbers throughout the Norton Sound District with the largest spawning stock at Glacial Lake where 1,000 to 2,000 sockeyes usually return to spawn each year, but large run years can have runs from 5,000 to over 10,000 sockeyes. The aerial survey escapement goal range of 800–1,600 at Glacial Lake was exceeded with a count of 4,250 sockeye salmon.

In Port Clarence, sockeye salmon spawning populations were near 10,000 fish at Salmon Lake in years previous to 2003. However, record runs of sockeye salmon to Salmon Lake began in 2004 and continued until 2009 when the run crashed for several years. Closures to subsistence fishing at Pilgrim River and Salmon Lake beginning in 2009 continued through 2014, with the exception of a good run in 2013. Good runs from 2015–2017 resulted in no closures and all sockeye salmon catch limits being waived. The combined escapement goal range of Salmon Lake and Grand Central River is 4,000–8,000 sockeye salmon by aerial survey and this year's survey count of 40,304 fish exceed the upper end of the range by over 500%.

Table 1. Norton Sound Salmon Catch and Dollar Value, 1961-2017.

Year	Total	Number of	Gross Value of
	Catch	Permits	Catch to Permit Holders
1961	101,711	a	a
1962	232,431	a	\$105,800
1963	224,378	a	\$104,000
1964	164,671	a	\$51,000
1965	39,203	a	\$21,483
1966	100,345	a	\$68,000
1967	74,818	a	\$44,038
1968	124,409	a	\$63,700
1969	178,972	a	\$95,297
1970	178,218	a	\$99,019
1971	141,977	a	\$101,000
1972	149,494	a	\$102,225
1973	176,797	a	\$308,740
1974	315,829	a	\$437,127
1975	251,861	a	\$413,255
1976	193,063	a	\$285,283
1977	257,325	164	\$546,010
1978	531,948	176	\$907,330
1979	350,401	175	\$878,792
1980	444,337	159	\$572,125
1981	441,734	167	\$761,658
1982	511,208	164	\$1,069,723
1983	456,420	170	\$946,232
1984	342,159	141	\$738,064
1985	180,200	155	\$818,477
1986	230,400	163	\$546,452
1987	136,283	164	\$517,894
1988	225,132	152	\$760,641
1989	92,811	110	\$319,489
1990	131,665	128	\$474,064
1991	156,789	126	\$413,479
1992	199,933	110	\$448,395
1993	263,670	153	\$368,723
1994	1,108,184	119	\$863,060
1995	181,393	105	\$356,164
1996	571,241	86	\$340,347
1997	79,141	102	\$363,908
1998	641,396	82	\$358,982
1999	23,051	60	\$76,860
2000	217,873	79	\$149,907
2001	30,849	51	\$56,921
2002	2,365	12	\$2,941
2003	20,653	30	\$64,473
2004	48,381	36	\$122,506
2005	89,669	40	\$296,154

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Year	Total	Number of	Gross Value of
	Catch	Permits	Catch to Permit Holders
2006	140,873	61	\$389,707
2007	152,357	71	\$572,195
2008	221,101	91	\$759,451
2009	138,737	88	\$722,167
2010	211,622	115	\$1,220,487
2011	177,167	123	\$1,269,730
2012	305,657	123	\$758,908
2013	181,247	124	\$1,183,236
2014	403,715	128	\$1,915,749
2015	369,801	128	\$1,940,408
2016	366,239	141	\$1,237,229
2017	378,561	139	\$2,788,316
5-year			
avg. b	325,332	129	\$1,407,106
10-year			
avg. c	252,764	113	\$1,157,956

^a Information not available.

^b 2012-2016.

c 2007-2016.

Table 2.—Norton Sound commercial salmon harvest summary by subdistrict, 2017.

				(Subdistricts			
		1	2	3	4	5	6	Total
Number of	Permit Holders ^a	6	10	26	18	31	69	139
King	Number	12	1	33	47	19	118	230
	Weight (lbs)	103	10	352	614	207	1035	2,321
Sockeye	Number	504	53	488	265	467	1,029	2,806
•	Weight (lbs)	3,093	354	2,779	1,484	2,772	6,266	16,748
Coho	Number	5,967	707	19,405	2,989	50,299	111,830	191,197
	Weight (lbs)	40,779	4,804	130,146	20,133	342,198	770,815	1,308,875
Pink	Number	466	189	2,853	3,636	1,470	10,340	18,954
	Weight (lbs)	1,448	681	10,142	14,107	5,918	40,543	72,839
Chum	Number	6,769	7,155	11,765	31,653	41,664	64,416	163,422
	Weight (lbs)	47,910	51,034	82,316	227,913	296,441	457,831	1,163,445
Total ^b	Number	13,718	8,105	34,544	38,590	93,919	187,733	376,609
	Weight (lbs)	93,333	56,883	225,735	264,251	647,536	1,276,490	2,564,228

^a Number of permit holders is the unique number of permit holders that fished in each subdistrict. Some permit holders fished in more than one subdistrict.

^b Total does not include 308 kings, 169 sockeyes, 57 cohos, 1,367 pinks and 51 chums retained for personal use.

Table 3. Norton Sound Salmon Catch, 1961-2017.

Year	King	Sockeye	Coho	Pink	Chum	Total
1961	5,300	35	13,807	34,237	48,332	101,711
1962	7,286	18	9,156	33,187	182,784	232,431
1963	6,613	71	16,765	46,180	154,749	224,378
1964	2,018	126	98	13,567	148,862	164,671
1965	128	30	2,030	220	36,795	39,203
1966	1,553	14	5,755	12,778	80,245	100,345
1967	1,804	0	2,379	28,879	41,756	74,818
1968	1,045	0	6,885	71,179	45,300	124,409
1969	2,392	0	6,836	86,949	82,795	178,972
1970	1,853	0	4,423	64,908	107,034	178,218
1971	2,593	0	3,127	4,895	131,362	141,977
1972	2,938	0	454	45,182	100,920	149,494
1973	1,918	0	9,282	46,499	119,098	176,797
1974	2,951	0	2,092	148,519	162,267	315,829
1975	2,393	2	4,593	32,388	212,485	251,861
1976	2,243	11	6,934	87,919	95,956	193,063
1977	4,500	5	3,690	48,675	200,455	257,325
1978	9,819	12	7,335	325,503	189,279	531,948
1979	10,706	57	31,438	167,411	140,789	350,401
1980	6,311	40	29,842	227,352	180,792	444,337
1981	7,929	56	31,562	232,479	169,708	441,734
1982	5,892	10	91,690	230,281	183,335	511,208
1983	10,308	27	49,735	76,913	319,437	456,420
1984	8,455	6	67,875	119,381	146,442	342,159
1985	19,491	166	21,968	3,647	134,928	180,200
1986	6,395	233	35,600	41,260	146,912	230,400
1987	7,080	207	24,279	2,260	102,457	136,283
1988	4,096	1,252	37,214	74,604	107,966	225,132
1989	5,707	265	44,091	123	42,625	92,811
1990	8,895	434	56,712	501	65,123	131,665
1991	6,068	203	63,647	0	86,871	156,789
1992	4,541	296	105,418	6,284	83,394	199,933
1993	8,972	279	43,283	157,574	53,562	263,670
1994	5,285	80	102,140	982,389	18,290	1,108,184
1995	8,860	128	47,863	81,664	42,898	181,393
1996	4,984	1	68,206	487,441	10,609	571,241
1997	12,573	161	32,284	20	34,103	79,141
1998	7,429	7	29,623	588,013	16,324	641,396
1999	2,508	0	12,662	0	7,881	23,051
2000	752	14	44,409	166,548	6,150	217,873
2001	213	44	19,492	0	11,100	30,849
2002	5	1	1,759	0	600	2,365
2002	12	21	17,060	0	3,560	20,653
2003	22	47	42,016	0	6,296	48,381
2004	151	12	85,523	0	3,983	89,669
2003	131	14	05,545	U	3,703	07,009

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Year	King	Sockeye	Coho	Pink	Chum	Total
2006	20	3	130,808	0	10,042	140,873
2007	19	2	126,136	3,769	22,431	152,357
2008	83	60	120,309	75,525	25,124	221,101
2009	84	126	87,041	17,364	34,122	138,737
2010	140	103	62,079	31,557	117,743	211,622
2011	185	369	58,917	7,141	110,555	177,167
2012	197	134	37,056	205,498	62,772	305,657
2013	151	247	53,802	8,338	118,709	181,247
2014	289	519	112,756	182,406	107,745	403,715
2015	1,288	4,119	153,928	62,888	147,497	369,720
2016	324	2,888	102,890	208,961	51,176	366,239
2017	538	2,975	191,254	20,321	163,473	378,561
5-year						
avg. ^a	450	1,581	92,086	133,618	97,580	325,316
10-year		·				
avg. ^b	276	857	91,491	80,345	79,787	252,756

a 2012-2016

b 2007-2016

Table 4.—Salmon counts of rivers and associated salmon escapement goal ranges (SEG, BEG or OEG), Norton Sound and Port Clarence, 2017.

		King Salmon		Chum Salmon					
_	Weir/	Escapement	Aerial	Weir/	Escapement	Aerial	Aerial		
	Tower	Goal	Survey	Tower	Goal	Survey	Survey		
Stream	Count	Range	Count a	Count	Range	Count a	Expansion		
Salmon L.									
Grand Central R.									
Pilgrim R.	101			50,189					
Glacial L.									
Sinuk R.						2,081	7,284		
Cripple R.									
Penny R.									
Anvil Creek									
Snake R.	8			4,759	1,600 - 2,500 ^b				
Nome R.	21			8,340	2,900 - 4,300 ^b				
Flambeau R.						8,063	17,738		
Eldorado R.	6			73,882	6,000 - 9,200 ^b				
Bonanza R.						2,280	7,734		
Solomon R.	8			3,985					
Nome Subdistrict					23,000 - 35,000 °		123,722		
Fish R.	174			161,333					
Boston Cr.									
Niukluk R.									
Ophir Cr.									
Kwiniuk R.	54	250		33,443	11,500 - 23,000 ^d				
Tubutulik R.					9,200 - 18,400 ^e				
Ungalik R.									
Inglutalik R ^f	2,226		206	89,632					
Shaktoolik R.	1,272			114,243					
Unalakleet R.	2,934			146,449					
Old Woman R.									
North R.	1,044	1,200-2,600		22,963					

-Continued-

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	Coho Salmon				Sockeye S	almon	P	Pink Salmon		
	Weir/	Aerial	Escapement	Weir/	Aerial	Escapement	Weir/	Escapement	Aerial	
	Tower	Survey	Goal	Tower	Survey	Goal	Tower	Goal	Survey	
Stream	Count	Count a	Range	Count	Count a	Range	Count	Range	Count a	
Salmon L.			_		25,004	Combined			,	
Grand Central R.					15,300	4,000 - 8,000				
Pilgrim R.	665			55,704			80,124			
Glacial L.					4,250	800 - 1,600				
Sinuk R.									150,200	
Cripple R.										
Penny R.										
Anvil Creek										
Snake R.	2,957			269			20,906			
Nome R.	4,983			429			717,770	13,000		
Flambeau R.									1,320	
Eldorado R. ^b	29			12			12,357			
Bonanza R.									19,490	
Solomon R.	179			5			61,324			
Fish R.	11,452			24			1,388,496			
Boston Cr.										
Niukluk R.			Combined							
Ophir Cr.			750-1,600							
Kwiniuk R.	54		650-1,300	6			508,278	8,400		
Tubutulik R.										
Ungalik R.										
Inglutalik R	2,457			15			1,574,463			
Shaktoolik R.	9,952			0			1,709,546			
Unalakleet R.	21,453			1,199			6,094,350			
Old Woman R.										
North R.	2,446		550-1,100	0	CEC) biolo		1,464,552	25,000		

Note: Data not available for all streams. Sustainable escapement goal (SEG), biological escapement goal (BEG), and optimal escapement goal (OEG) are listed.

^a All aerial surveys are rated fair to good, unless otherwise noted.

^b The Alaska Board of Fisheries (BOF) also established an OEG with the same range as the BEG.

^c BOF-established OEG is the same range as the BEG and is based on a combination of weir counts and expanded aerial survey counts. The OEG and BEG do not include Cripple and Penny rivers.

^d This represents the OEG in regulation. The BEG is 10,000-20,000 for the Kwiniuk River and 8,000-16,000 for the Tubutulik River.

^e The goal listed is actual fish and not aerial counts. However, at this time there is no counting project on the river.

^f Three different department aerial surveyors counted 84, 94, and 206 kings as the season progressed. The final survey was flown when 2,226 kings had been counted past the tower.