



MEMORANDUM

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Region IV - Kodiak

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FROM: Todd Anderson
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SUBJECT: 2013 Chignik Salmon
Season Summary

cc:
Campbell
Regnart
Bruce
Aspelund
Keyse
Spalinger, G.
Nichols
Murphy
Wilburn
Poetter
Volk
Jackson
St. Saviour
Fuerst
Honnold
Moore
Foster
Tide
Russell

Linderman
Miller
Sagalkin
Tracy
Kelley
Bergstrom
Moore
Greer
Bruce
Dann
Schrof
Fall
Shedd
Knutson
Gardner
Sands
Fair
Shaker
Polum

City of Chignik Lake
City of Chignik Lagoon
City of Chignik Bay
Native Village of Perryville
Lake and Peninsula Borough
Chignik Advisory Committee
Sand Point Advisory Committee
Kodiak Advisory Committee
USFWS- King Salmon
USFWS-OSM-Campbell
Trident Seafoods
International Seafoods of Alaska
Alaska Peninsula Fisherman
Cooperative
Fisheries Research Institute-UW
Concerned Area M Fisherman
United Fisherman of Alaska
Peninsula Marketing Association
United Salmon Association
Chignik Regional Aquaculture
Association

The following is a brief overview of the 2013 Chignik Management Area (CMA; Figure 1) commercial salmon season.

The Chignik River watershed supports two distinct sockeye salmon runs which traditionally provide the majority of directed harvest opportunities within the CMA. In 2013, the combined early- and late-run Chignik-bound sockeye salmon run was above recent averages. The CMA was open to commercial salmon fishing for 69 days (June 6–August 27) and a total of 76 permits were fished (excluding the department’s test fishery permit).

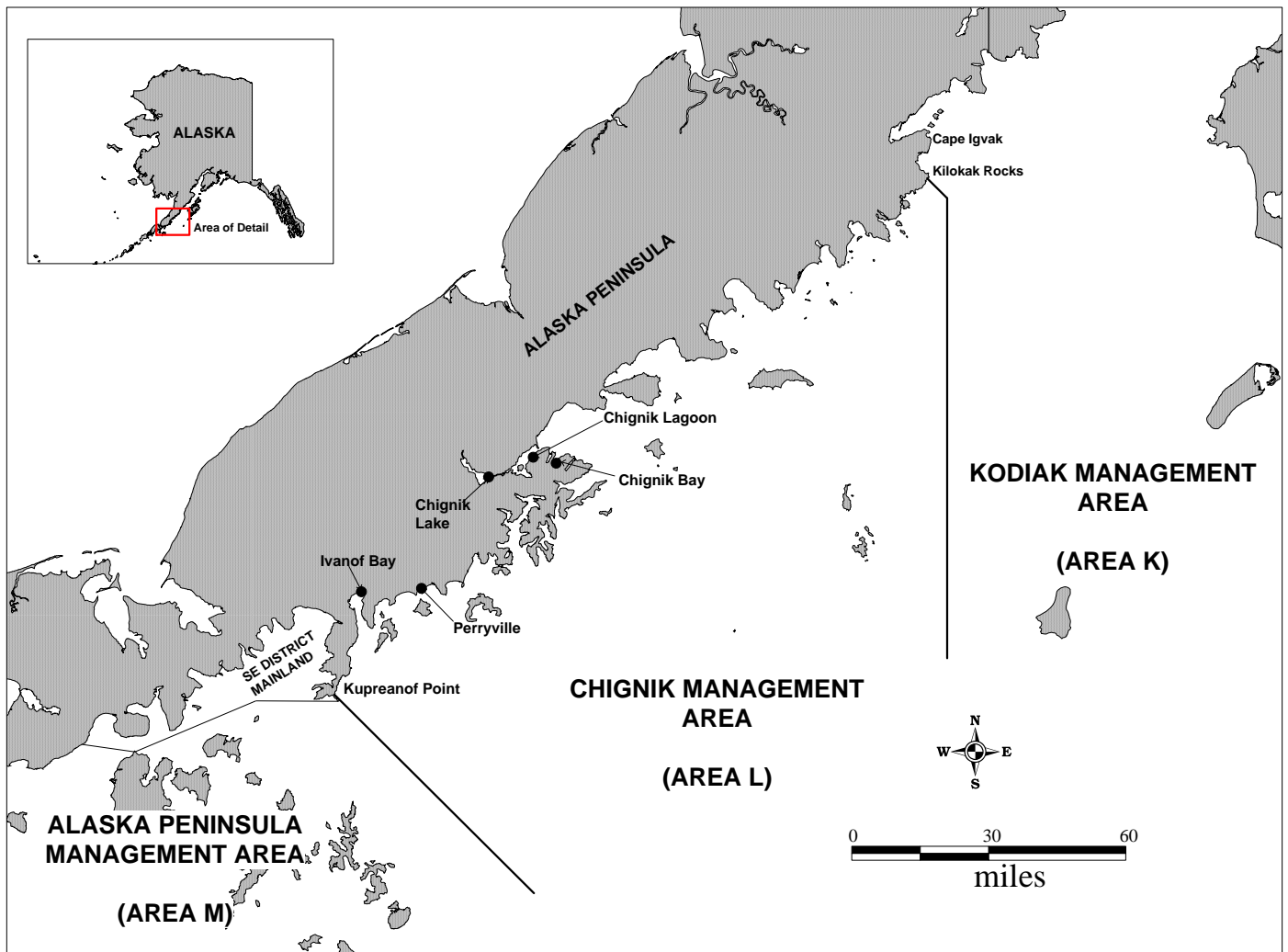


Figure 1.- Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula and Aleutian Islands Management Areas.

ESCAPEMENT

Escapement through the Chignik River weir was monitored using underwater digital video equipment. Two underwater gates in the weir were open to provide uninterrupted escapement. The numbers of fish passing the weir were counted, by species, for the first 10 minutes of each hour. The counts were expanded to obtain hourly escapement estimates, and then summed to provide an estimate of daily fish passage. A digital video archive was kept of each 10-minute counting period in the 2013 season with the first count occurring on May 28 when weir installation was complete, and the last weir count of the season took place on September 2, after which the weir was removed.

Aerial surveys were flown throughout the season to monitor escapement into CMA streams. Peak aerial survey counts, by index stream and species, were summed and compared to available escapement goals established by Nemeth et al. (2010). Pink and chum salmon escapements were measured against established area wide sustainable escapement goals (SEG).

Chinook Salmon

The Chignik River is the only Chinook salmon-producing stream within the CMA and one of the largest Chinook salmon streams on the South Alaska Peninsula. The biological escapement goal (BEG) for Chinook salmon in the Chignik River watershed is 1,300 to 2,700 fish (Nemeth et. al. 2010). The 2013 Chignik River Chinook salmon escapement, above the weir, of 1,253 fish (Table 1) was below the 5-year and 10-year averages. Subsistence and sport fishery harvest of Chinook salmon above the weir will not be known until permits and questionnaires are returned and tabulated by the spring of 2014.

Sockeye Salmon

Sockeye salmon escapement to the Chignik River is managed based on separate escapement objectives for both early- and late-run sockeye salmon. The early-run SEG of 350,000 to 400,000 sockeye salmon through July 4 was met with an estimated escapement of 386,782 fish (Table 1).

The late-run objectives include an additional 50,000 sockeye salmon which are incorporated into the late-run SEG to provide for additional freshwater subsistence fishing opportunity. The late-run (post-July 4) SEG of 250,000 to 400,000 sockeye salmon was met with an estimated escapement of 369,319 sockeye salmon (Table 1). Post-weir sockeye salmon escapement estimates were produced for the September 3-September 15 (36,457) and the September 16-30 (24,251) periods and were included in the total late-run escapement estimate.

Early run escapement was below the 5- and similar to the 10-year average escapement (Table 1). The late-run sockeye salmon escapement was above the prior 5- and 10-year averages (Table 1). Sockeye salmon escapements into other CMA streams were relatively minor.

Coho Salmon

Coho salmon begin to enter CMA drainages in mid-August and continue through November. The coho salmon run is generally building when the weir is removed. The 2013 Chignik River coho salmon weir escapement estimate through September 2 was 16,763 fish which was above the average escapement estimates (Table 1). Although no coho salmon escapement goals have been established for the CMA (Nemeth et. al. 2010), coho salmon escapement throughout the CMA appears to be consistent with past years and sustainable at this level.

Pink Salmon

An estimated 7,231 pink salmon passed the Chignik River weir in 2013, which was below the previous 5- and 10-year average pink salmon escapements (Table 1). Pink salmon escapements into other CMA streams were estimated via aerial survey and summarized by district. The even-year upper bound of the SEG for all districts combined (800,000; Nemeth et. al. 2010) was exceeded with an estimated total peak escapement of 863,991 pink salmon.

Chum Salmon

The 2013 Chignik River chum salmon escapement was 72 fish, which was below average for the Chignik River (Table 1). Chum salmon escapements to other CMA streams were estimated via aerial survey and summarized by district. The SEG lower bound for all districts combined (57,400; Nemeth et al. 2010) was met with an estimated total peak escapement of 335,907 chum salmon.

Table 1.- Estimated Chinook, sockeye, coho, pink, and chum salmon, and Dolly Varden escapement to the Chignik River, 2003 to 2013.

Year	Escapement						
	Chinook ^a	Sockeye		Coho	Pink	Chum	Dolly Varden
		Early-Run	Late-Run ^b				
2003	6,412	350,004	334,119	7,635	1,897	68	36,397
2004	7,840	363,800	214,459	18,810	2,243	276	20,086
2005	6,486	355,091	225,366	18,206	13,637	408	13,940
2006	3,535	366,497	368,996	37,113	18,401	99	2,031
2007	2,000	361,091	293,883	10,299	20,464	118	6,993
2008	1,730	377,579	328,479	13,958	22,341	124	14,776
2009	1,680	391,476	328,586	7,670	12,873	109	8,618
2010	3,679	432,535	310,634	5,152	3,670	95	17,578
2011	2,728	488,930	264,887	5,293	16,298	145	19,225
2012	1,449	353,441	358,948	2,663	2,849	73	18,032
2013	1,253	386,782	369,319	16,763	7,231	72	17,230
Averages							
2003-12	3,754	384,044	302,836	12,680	11,467	152	15,768
2008-12	2,253	408,792	318,307	6,947	11,606	109	15,646

^a No escapement adjustments were made for Chinook salmon that spawn below the weir, or those removed by the sport and subsistence fisheries above the weir.

^b Late-run sockeye salmon total includes a post-weir escapement estimate.

COMMERCIAL FISHERY

The CMA was open to commercial salmon fishing for 69 days during the 2013 commercial salmon season. The first fishing period occurred on June 6 and the CMA closed to commercial salmon fishing (August 27) shortly after area salmon processors ceased operations. In 2013, 77 permit holders (including the department's test fishery permit) made a total of 3,142 landings (Table 2).

Table 2.- Total commercial salmon harvests, including home pack, and department test fishery from the Chignik Management Area by species and year, 2003 through 2013.

Year	Permits Making		Chignik Management Area Harvest					
	Deliveries ^a	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	711,473
2005	97	1,669	3,408	1,152,133	6,956	194,045	8,821	1,365,363
2006	49	2,066	2,256	902,709	39,221	383,547	61,630	1,389,363
2007	56	2,101	1,773	834,547	73,277	2,019,748	78,553	3,007,898
2008	55	2,217	970	687,270	161,536	2,389,958	209,325	3,449,059
2009	56	2,172	3,319	1,198,105	110,373	1,408,339	256,425	2,976,561
2010	66	2,532	10,380	1,379,785	159,198	489,781	581,329	2,620,473
2011	65	2,617	6,586	2,497,004	76,792	905,166	269,503	3,755,051
2012	70	2,915	3,687	1,800,121	33,316	137,706	171,112	2,145,942
2013	77	3,142	2,959	2,396,645	32,258	871,503	154,425	3,457,790
Averages								
2003-12	59	2,171	3,797	1,225,662	76,460	843,331	170,125	2,319,513
2008-12	62	2,491	4,988	1,512,457	108,243	1,066,190	297,539	2,989,417

Harvest

Chinook Salmon

A total of 2,872 Chinook salmon were commercially harvested (excluding home pack and the department's test fishery) in 2013 (Table 3), which was below recent average harvests (Table 2). The majority of the 2013 CMA Chinook salmon harvest occurred in the Central District (Table 3). Due to the low escapement of Chinook salmon into the Chignik River the commercial fishing fleet was limited to non-retention of Chinook salmon 28 inches and greater in length in the Chignik Bay (after July 21) and Central (after July 22) districts.

Sockeye Salmon

A total of 2,391,088 sockeye salmon were commercially harvested (excluding home pack and the department's test fishery) in the CMA during 2013 (Table 3), which was well above the prior 5- and 10-year average harvests (Table 2). The majority of the 2013 CMA sockeye salmon harvest came from the Chignik Bay and Central districts (Table 3).

In 2013, Cape Igvak opened to commercial salmon fishing on June 8 and Southeastern District Mainland (SEDM) opened to commercial salmon fishing on June 11. A total of 211,286 (169,029 considered

Chignik-bound) sockeye salmon were harvested in SEDM through the end of the allocation period, on July 25. Cape Igvak fisherman harvested 393,532 (354,179 considered Chignik-bound) during the allocation period.

Coho Salmon

A total of 32,230 coho salmon were commercially harvested in 2013 (Table 3), which was lower than the 5- and 10-year average harvest (Table 2). The majority of the coho salmon harvest in 2013 took place during July and August in the Western District (Table 3).

Pink Salmon

A total of 871,500 pink salmon were commercially harvested (excluding the department's test fishery and home pack) in the CMA in 2013 (Table 3), which was below the 5-year and similar to the 10-year average harvests (Table 2). The 2013 CMA pink salmon harvest was well distributed between the Central, Eastern, Western, and Perryville districts (Table 3). The majority of the pink salmon harvest occurred in August.

Chum Salmon

A total of 154,425 chum salmon were commercially harvested in 2013 (Table 3), which was below the 5-year average and similar to the 10-year average chum salmon harvests (Table 2). The majority of the chum salmon harvest in 2013 took place in the Central District, although the Eastern and Western districts also yielded substantial catches (Table 3). Most chum salmon were harvested in June and early-August.

Table 3.- Chignik Management Area commercial salmon harvest, excluding home pack, and department test fishery, by district, 2013.

District	Chinook		Sockeye		Coho		Pink		Chum	
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Chignik Bay	545	7,723	1,597,329	11,489,997	4,144	31,739	76,470	222,085	9,202	70,756
Central	1,231	15,673	581,866	4,104,711	8,171	60,415	218,317	621,820	56,831	467,106
Eastern	398	4,717	149,437	1,006,374	521	4,586	197,293	572,972	45,253	338,848
Western	659	7,027	56,230	367,322	16,757	110,724	192,861	537,921	38,237	280,180
Perryville	39	447	6,226	38,149	2,637	18,362	186,559	654,997	4,902	35,151
Total	2,872	35,587	2,391,088	17,006,553	32,230	225,826	871,500	2,609,795	154,425	1,192,041

Economic Value

The exvessel value of the 2013 CMA commercial salmon fishery was about \$23.3 million, or approximately \$306,889 per active permit holder. A majority of the value was from the sale of sockeye salmon (94%), with a total of approximately \$288,771 per active permit holder. The harvest of Chinook, coho, pink, and chum salmon provided approximately \$495, \$1,143, \$11,421, and \$5,059 respectively, per active permit holder (Table 4).

Table 4.- Value, by species, and average value per active permit, in dollars, in the Chignik Management Area, 2003 to 2013.

Year	Chinook		Sockeye		Coho		Pink		Chum		(\$) Total Value	Number of Permits ^c	(\$) Value Per Permit
	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b			
2003	20,212	202	5,283,962	52,840	173,625	1,736	182,100	1,821	71,140	711	5,731,039	100	57,310
2004	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961
2005	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585
2006	26,895	560	4,703,317	97,986	105,132	2,190	126,309	2,631	81,123	1,690	5,042,776	48	105,058
2007	26,176	476	4,154,210	75,531	195,754	3,559	1,034,322	18,806	162,089	2,947	5,572,550	55	101,319
2008	15,249	282	4,121,611	76,326	778,282	14,412	1,810,965	33,536	533,358	9,877	7,259,465	54	134,435
2009	30,714	558	7,058,058	128,328	220,823	4,015	800,523	14,555	520,791	9,469	8,630,909	55	156,926
2010	160,076	2,463	9,549,370	146,913	566,191	8,711	565,941	8,707	1,774,763	27,304	12,616,341	65	194,098
2011	57,524	899	21,469,153	335,456	278,391	4,350	1,040,264	16,254	919,586	14,369	23,764,918	64	371,327
2012	47,612	690	12,803,505	185,558	97,430	1,412	146,011	2,116	634,705	9,199	13,729,263	69	198,975
2013 ^d	37,620	495	21,946,587	288,771	86,892	1,143	867,978	11,421	384,458	5,059	23,323,535	76	306,889
Averages													
2003-12	44,671	677	7,902,557	119,905	242,697	4,050	576,234	9,900	470,912	7,568	9,237,071	71	142,099
2008-12	62,235	978	11,000,339	174,516	388,223	6,580	872,741	15,034	876,641	14,043	13,200,179	61	211,152

^a Total value of commercial catch in dollars, by species. Value does not include home pack or department test fishery.

^b Average value of commercial catch in dollars, by species. Average value does not include home pack or department test fishery.

^c Includes the number of commercial permits that received income from the harvest. These figures do not include department test fishery harvests.

^d Values represent the initial price paid, and do not include any postseason adjustments by any processor. The average 2013 exvessel prices per pound were: Chinook - \$1.06, sockeye - \$1.29, coho - \$0.38, pink - \$0.33, chum - \$0.32.

Department Test Fishery

The department conducted test fisheries on three occasions in 2013. Data from these test fisheries were used to assess the buildup of sockeye salmon in Chignik Lagoon. An estimated 4,970 sockeye salmon were harvested, which provided approximately \$52,500 that was used to offset the cost of vessel charters, general operations at the Chignik River weir, and the 2014 inseason genetics sampling.

SUBSISTENCE

As of this writing subsistence harvest numbers for 2013 have not been finalized.

LITERATURE CITED

Nemeth, M. J., M. E. Loewen, H. Finkle, J. S. Schmidt, J. W. Erickson, M. J. Witteveen, and D. Barnard. 2010. Review of salmon escapement goals in the Chignik Management Area, 2010. Alaska Department of Fish and Game, Fishery Manuscript Series No. 10-08, Anchorage.

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