



MEMORANDUM

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SUBJECT: 2014 Chignik Salmon
Season Summary

cc:

Campbell	Linderman	City of Chignik Lake
Regnart	Bosch	City of Chignik Lagoon
Loewen	Sagalkin	City of Chignik Bay
Dorner, A.	Tracy	Native Village of Perryville
Keyse	Kelley	Lake and Peninsula Borough
Spalinger, G.	Bergstrom	Chignik Advisory Committee
Shriver	Wattum	Sand Point Advisory Committee
Hutter	Greer	Kodiak Advisory Committee
Murphy	Johnson	USFWS-ANC-McBride
Habicht	Shedd	Chignik Regional Aquaculture
Wilburn	Fair	Association
Foster	Dann	USFWS-OSM-Pappas
Volk	Schrof	Trident Seafoods
Polum	Fox	International Seafoods of Alaska
Lechner	Marchioni	United Chignik Salmon
Jackson	Fall	Fishermen
Fuerst	Baechler	Alaska Peninsula Fisherman
Russell	Sands	Cooperative
Hutchinson-Scarborough		Fisheries Research Institute-UW
		Concerned Area M Fisherman
		United Fisherman of Alaska

The following is a brief overview of the 2014 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 2014, the combined early- and late-run Chignik-bound sockeye salmon run was well below recent averages. The CMA was open to commercial salmon fishing for 42 days (July 12–August 28) and a total of 70 permits were fished (excluding the department’s test fishery permit).

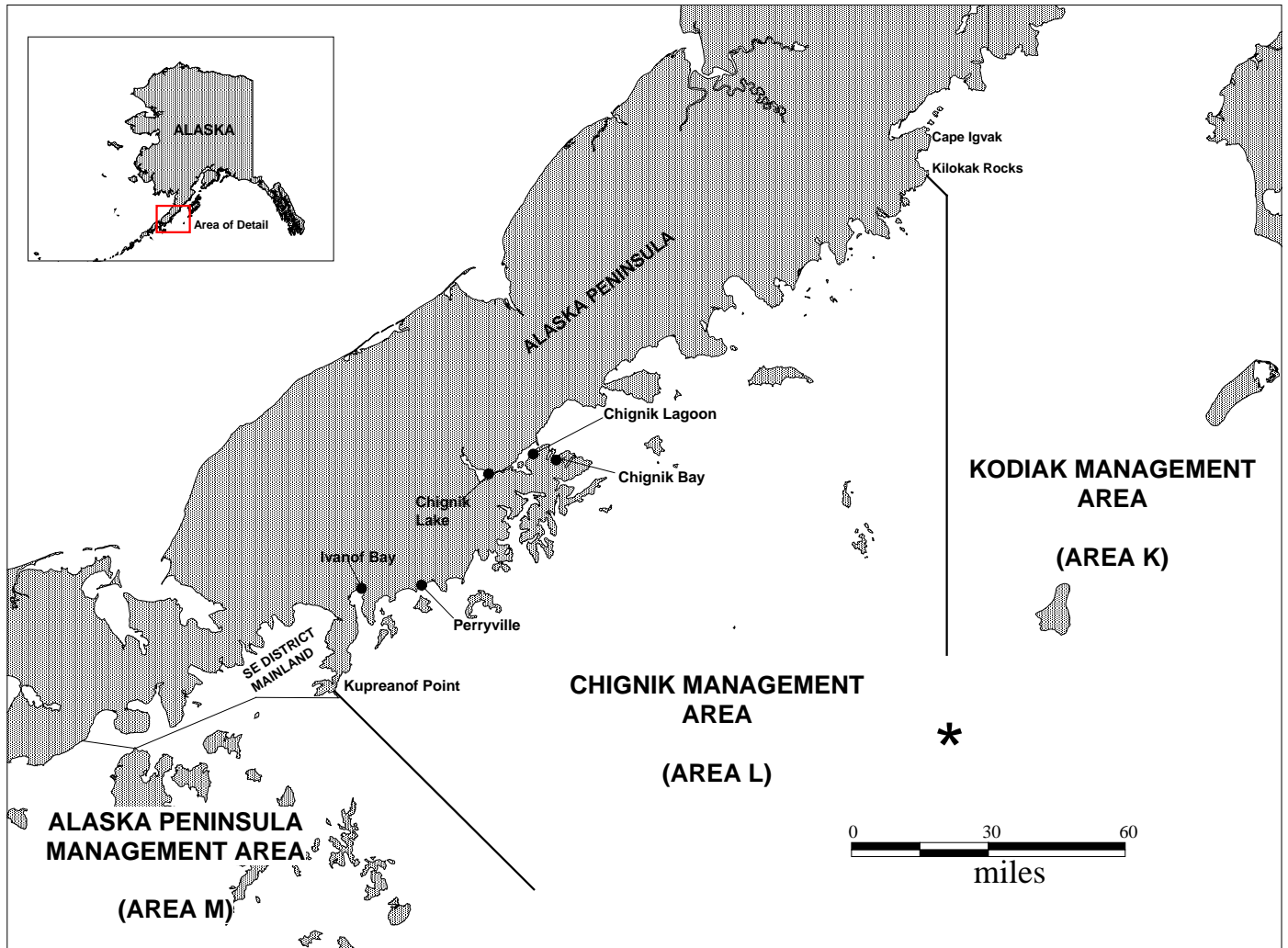


Figure 1.- Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula and Aleutian Islands Management Areas.

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 2014 season with the first count occurring on May 25 when weir installation was complete, and the last weir count of the season took place on September 3, 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 Sagalkin et al. (2013). 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 (Sagalkin et. al. 2013). The 2014 Chignik River Chinook salmon escapement, above the weir, of 2,895 fish (Table 1) was above the 5-year and below the 10-year average. 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 2015.

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 450,000 sockeye salmon through July 4 was met with an estimated escapement of 360,424 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 291,228 sockeye salmon (Table 1). Post-weir sockeye salmon escapement estimates were produced for the September 4-September 15 (12,910) and the September 16-26 (10,257) periods and were included in the total late-run escapement estimate.

Both the early- and late-run escapements were below their respective 5- and 10-year average escapements (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 2014 Chignik River coho salmon weir

escapement estimate through September 3 was 15,572 fish which was above the average escapement estimates (Table 1). Although no coho salmon escapement goals have been established for the CMA (Sagalkin et. al. 2013), coho salmon escapement throughout the CMA appears to be consistent with past years and sustainable at this level.

Pink Salmon

An estimated 3,171 pink salmon passed the Chignik River weir in 2014, 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 pink salmon SEG for all districts combined (200,000–600,000; Sagalkin et. al. 2013) was met with an estimated total peak escapement of 235,159 pink salmon.

Chum Salmon

The 2014 Chignik River chum salmon escapement was 58 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; Sagalkin et al. 2013) was met with an estimated total peak escapement of 101,378 chum salmon.

Table 1.- Estimated Chinook, sockeye, coho, pink, and chum salmon, and Dolly Varden escapement to the Chignik River, 2004 to 2014.

Year	Escapement						
	Chinook ^a	Sockeye		Coho	Pink	Chum	Dolly Varden
		Early-Run	Late-Run ^b				
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
2014	2,895	360,424	291,228	15,572	3,171	58	44,899
Averages							
2004-13	3,238	387,722	306,356	13,593	12,001	152	13,851
2009-13	2,158	410,633	326,475	7,508	8,584	99	16,137

^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 42 days during the 2014 commercial salmon season. The first fishing period occurred on July 12 and the CMA closed to commercial salmon fishing (August 28) shortly after area salmon processors ceased operations. In 2014, 71 permit holders (including the department's test fishery permit) made a total of 1,526 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, 2004 through 2014.

Year	Permits Making		Chignik Management Area Harvest					Total
	Deliveries ^a	Landings	Chinook	Sockeye	Coho	Pink	Chum	
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
2014	71	1,526	8,857	620,711	132,549	352,966	55,370	1,170,453
Averages								
2004-13	62	2,278	3,786	1,355,297	69,296	880,217	179,163	2,487,897
2009-13	67	2,676	5,386	1,854,332	82,387	762,499	286,559	2,991,163

Harvest

Chinook Salmon

A total of 8,822 Chinook salmon were commercially harvested (excluding home pack and the department's test fishery) in 2014 (Table 3), which was well above recent average harvests (Table 2). The majority of the 2014 CMA Chinook salmon harvest occurred in the Central and Western districts (Table 3).

Sockeye Salmon

A total of 617,251 sockeye salmon were commercially harvested (excluding home pack and the department's test fishery) in the CMA during 2014 (Table 3), which was well below the prior 5- and 10-year average harvests (Table 2). The majority of the 2014 CMA sockeye salmon harvest came from the Chignik Bay and Western districts (Table 3).

The Southeastern District Mainland (SEDM) and Cape Igvak fisheries were not opened during the allocation period as the Chignik Area sockeye salmon harvest did not exceed the required 600,000 fish through July 25.

Coho Salmon

A total of 132,549 coho salmon were commercially harvested in 2014 (Table 3), which was well above the 5- and 10-year average harvests (Table 2). The majority of the coho salmon harvest in 2014 took place during July and August in the Western District (Table 3).

Pink Salmon

A total of 352,950 pink salmon were commercially harvested (excluding the department's test fishery and home pack) in the CMA in 2014 (Table 3), which was well below the 5-year and 10-year average harvests (Table 2). The majority of the pink salmon harvest occurred in the Western and Central districts during late-July and early-August (Table 3).

Chum Salmon

A total of 55,367 chum salmon were commercially harvested in 2014 (Table 3), which was well below the 5-year and 10-year average chum salmon harvests (Table 2). The majority of the chum salmon harvest in 2014 took place in the Central and Western districts in late-July (Table 3).

Table 3.- Chignik Management Area commercial salmon harvest, excluding home pack, and department test fishery, by district, 2014.

District	Chinook		Sockeye		Coho		Pink		Chum	
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Chignik Bay	353	3,702	204,596	1,317,844	6,550	47,041	11,647	43,217	4,326	29,705
Central	4,314	41,015	100,747	701,479	17,674	151,942	99,835	305,495	20,968	175,299
Eastern	75	904	86	605	653	5,482	2,964	8,691	610	6,144
Western	4,028	29,662	302,614	2,038,136	98,345	802,897	226,008	736,712	26,578	223,207
Perryville	52	601	9,208	64,727	9,327	84,705	12,496	46,673	2,885	26,008
Total	8,822	75,884	617,251	4,122,791	132,549	1,092,067	352,950	1,140,788	55,367	460,363

Economic Value

The exvessel value of the 2014 CMA commercial salmon fishery was about \$7.0 million, or approximately \$100,000 per active permit holder. A majority of the value was from the sale of sockeye salmon (86%), with a total of approximately \$86,346 per active permit holder. The harvest of Chinook, coho, pink, and chum salmon provided approximately \$956, \$6,210, \$4,108, and \$2,666 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 2014.

Year	Chinook		Sockeye		Coho		Pink		Chum		(\$) ^a Total Value	Number of Permits ^c	(\$) ^a Value Per Permit
	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b			
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	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
2014 ^d	66,892	956	6,044,232	86,346	434,674	6,210	287,553	4,108	186,632	2,666	7,019,983	70	100,285
Averages													
2004-13	46,412	706	9,568,820	143,498	234,023	3,991	644,822	10,860	502,244	8,003	10,996,320	68	167,057
2009-13	66,709	1,021	14,565,335	217,005	249,945	3,926	684,143	10,611	846,861	13,080	16,412,993	66	245,643

^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 2014 exvessel prices per pound were: Chinook - \$0.88, sockeye - \$1.47, coho - \$0.40, pink - \$0.25, chum - \$0.41.

Department Test Fishery

The department conducted test fisheries on four occasions in 2014. Data from these test fisheries were used to assess the buildup of sockeye salmon in Chignik Lagoon. An estimated 3,460 sockeye salmon were harvested, which provided approximately \$30,000 that was used to offset the cost of vessel charters and general operations at the Chignik River weir.

SUBSISTENCE

As of this writing subsistence harvest numbers for 2014 have not been finalized.

LITERATURE CITED

Sagalkin, N. H., A. St. Saviour, J. W. Erickson, and H. Finkle. 2013. Review of salmon escapement goals in the Chignik Management Area, 2013. Alaska Department of Fish and Game, Fishery Manuscript Series No. 13-06, Anchorage.