MATANUSKA-SUSITNA BOROUGH Fish & Wildlife Commission

350 E Dahlia Ave., Palmer, Alaska 99645

Special Meeting - ADF&G Fishing Season Summary

December 7, 2023

Meeting Packet - Table of Contents

Pg. = Item:

Physical Location of Meeting: Assembly Chambers, DSJ Bldg, 350 E. Dahlia Ave., Palmer.
Remote Participation: See attached agenda.
Meeting Documents: Can be found on the FWC website: Matanuska-Susitna Borough - Fish & Wildlife Commision (matsugov.us)

MATANUSKA-SUSITNA BOROUGH
MSB Fish and Wildlife Commission
AGENDA

Edna Devries, Mayor

Andy Couch – Chair
Peter Probasco – Vice Chair
Gabriel Kitter
Howard Delo
Larry Engel
Tim Hale
Assembly - Vacant
Kendra Zamzow
Jim Sykes

Maija DiSalvo - Staff

Michael Brown, Borough Manager

PLANNING & LAND USE DEPARTMENT
Alex Strawn, Planning & Land Use Director
Kim Sollien, Planning Services Manager
Jason Ortiz, Development Services Manager
Fred Wagner, Platting Officer

Assembly Chambers
Dorothy Swanda Jones Building
350 E. Dahlia Avenue, Palmer

December 7, 2023
SPECIAL MEETING
5:00 p.m.

Ways to participate in MSB Fish and Wildlife Commission meetings:

IN-PERSON: Assembly Chambers, DSJ Building

REMOTE PARTICIPATION VIA MICROSOFT TEAMS:

Join on your computer:
Click here to join the meeting
Meeting ID: 278 714 212 145
Passcode: G6425N

Or call in (audio only):
1-907-290-7880
Phone Conference ID: 906 494 22#

I. CALL TO ORDER

II. ROLL CALL – DETERMINATION OF QUORUM

III. LAND ACKNOWLEDGEMENT

"We acknowledge that we are meeting on traditional lands of the Dene people, and we are grateful for their continued stewardship of the land, fish, and wildlife throughout time immemorial."

IV. APPROVAL OF AGENDA

V. PLEDGE OF ALLEGIANCE

VI. INTRODUCTIONS
A. FWC Opening Statement *(2 minutes)*

B. ADF&G Opening Statement *(2 minutes)*
C. Audience Participation *(3 minutes/person)*

VII. PRESENTATIONS
A. Staff
B. ADF&G
i. Commercial Fishing 2022 Notable Highlights & Observations *(5 minutes)*
ii. Sport Fishing 2022 Notable Highlights & Observations *(5 minutes)*
iii. Federal Management of Exclusive Economic Zone *(10 minutes)*

VIII. ITEMS OF BUSINESS
A. FWC/ADF&G Dialogue on Mat-Su Fisheries/FWC Questions *(45 minutes)*

IX. ADF&G/FWC MEMBER COMMENTS *(15 minutes)*

X. NEXT MEETING DATE: December 14, 2023 @ 2:00 PM - MSB Assembly Chambers

XI. ADJOURNMENT

Disabled persons needing reasonable accommodation in order to participate at a MSB Fish and Wildlife Commission Meeting should contact the borough ADA Coordinator at 861-8432 at least one week in advance of the meeting.

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Planning Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7833
https://planning.matsugov.us/ - planning@matsugov.us

Date: October 24, 2023

Re: MSB Fish & Wildlife Commission Approved Questions for 12/7/23 ADF&G Fisheries Summary Special Meeting

1. Mat-Su chinook salmon stocks have been a conservation concern for many years. What factors do you believe are causing this decline and what, other than harvest restrictions, might be employed to correct this issue? Please provide 2023 escapement counts for Mat-Su Chinook salmon stocks.

   The decline is likely attributed to poor marine survival due to changing ocean conditions. Warmer stream conditions due to climate change, especially on streams prone to warming, negatively affects spawning success and this only exacerbates the issue. Harvest reductions are implemented on low run years when an escapement objective is not projected to be met. Harvest reductions are a more immediate fix. Long term, keeping salmon habitats intact for spawning and rearing is important. This would include balancing population growth with lands use near habitats important to salmon, maintaining or improving fish passage and keeping wetlands intact, and suppressing or eradicating invasive species such as northern pike, blackfish, and elodea on a case-by-case basis.

2. Last year, at our request, you provided unfunded research priorities for Cook Inlet commercial and Mat-Su sport fish management. Are these still your priorities? If not, please provide updated research priorities for both divisions.

   Division of Sport Fish priorities remain unchanged for now.

   - *Yentna River king salmon is a priority, to gather data specific to that stock in order to bolster production modeling and future escapement goal adjustments for that stock.*
   - *Transition Little Susitna king salmon counting from a weir to a sonar-based platform. The main expense would be the purchase of a sonar unit (approximately $100K).*

Division of Commercial Fisheries

- *Restoration of the GSI capture recapture of Susitna River sockeye salmon in conjunction with operation of the Judd, Larsen and Chelatna Lake weirs to estimate Susitna River run size and spawning escapement.*
- *Restore the Chelatna Lake sockeye salmon weir.*

3. What is the Department's best estimate for the number of Northern Cook Inlet sockeye salmon caught by the drift fleet for each opening in 2020, 2021, 2022, and, if available, 2023?

See Table 1–3 for estimates of stock specific harvest on an annual basis. The estimated harvest for Northern Cook Inlet sockeye salmon in the drift gillnet commercial fishery for 2020 is 31,584 fish, 2021 is 70,754 fish, and 2022 is 180,599 fish. These total harvest estimates were derived by summing stock specific harvest estimates from the JCL, SusYen, Fish, and KTNE reporting groups (Figure 1.). Stock compositions are estimated by sampling the drift gillnet fishery harvest each statistical week relative to historical harvest to gain geographic and temporal representation across the season. The samples are then subsampled post season for mixed stock analysis by the Division of Commercial Fisheries, Gene Conservations Laboratory in Anchorage, AK. See Methods in Barclay et al. 2021 for further detail. Estimates for the 2023 season are not available at this time.

Table 1.–Stock-specific harvest and standard deviation (SD) calculated using a stratified estimator for combined strata in the Central District drift gillnet fisheries and based on genetic analysis of mixtures of sockeye salmon harvested in the Upper Cook Inlet, 2020.

*Note: Northern Cook Inlet origin harvest includes JCL, SusYen, Fish, and KTNE reporting groups.

Source- Barclay, A. W., and E. L. Chenoweth. 2021. Genetic stock identification of Upper Cook Inlet sockeye salmon harvest, 2020. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 5J21-04, Anchorage.

			90% CI		
Area strata	Reporting Group	Harvest	5%	95%	SD
Central District drift gillnet (excluding corridor-only periods)					
	Crescent	859	0	2,542	839
	West	6,318	3,614	9,493	1,788
	JCL	4,350	2,267	6,819	1,394
	SusYen	9,132	3,932	14,565	3,265
	Fish	6,906	4,142	9,842	1,732
	KTNE	1,778	366	4,202	1,258
	Kenai	55,036	47,990	62,161	4,271
	Kasilof	19,122	13,990	24,354	3,192
	Harvest represented	103,502			
	Harvest unrepresented	2,801			
	Total Harvest	106,303			
Central District drift gillnet (corridor-only periods)					
	Crescent	177	0	1,028	448
	West	11,864	7,462	17,139	2,954
	JCL	4,956	2,174	8,327	1,917
	SusYen	1,740	242	5,365	1,837
	Fish	1,662	0	4,262	1,353
	KTNE	1,061	0	3,407	1,158
	Kenai	139,998	132,816	146,758	4,345
	Kasilof	5,307	1,702	9,677	2,429
	Harvest represented	166,764			
	Harvest unrepresented	0			
	Total Harvest	166,764			

Table 2.–Stock-specific harvest and standard deviation (SD) calculated using a stratified estimator for combined strata in the Central District drift gillnet fisheries and based on genetic analysis of mixtures of sockeye salmon harvested in the Upper Cook Inlet, 2021.

*Note: Northern Cook Inlet origin harvest includes JCL, SusYen, Fish, and KTNE reporting groups.

Source- ADF&G personal communication, Andy Barclay Division of Commercial Fisheries

			90% CI		
Area strata	Reporting Group	Harvest	5%	95%	SD
Central District drift gillnet (excluding corridor-only periods)					
	Crescent	627	0	3,553	1,569
	West	36,057	20,117	52,960	10,033
	JCL	11,568	5,081	19,812	4,527
	SusYen	32,023	16,619	50,726	10,434
	Fish	7,271	1,577	14,827	4,138
	KTNE	8,589	1,401	22,405	6,659
	Kenai	332,070	305,725	357,455	15,939
	Kasilof	36,159	20,504	51,850	9,521
	Harvest represented	464,365			
	Harvest unrepresented	767			
	Total Harvest	465,132			
Central District drift gillnet (corridor-only periods)					
	Crescent	416	0	2,589	1,078
	West	27,108	15,575	40,333	7,769
	JCL	2,197	0	9,474	3,346
	SusYen	6,418	0	23,046	8,107
	Fish	585	0	3,210	1,286
	KTNE	2,102	0	7,191	2,477
	Kenai	303,157	281,929	320,840	11,796
	Kasilof	16,759	6,756	28,335	6,594
	Harvest represented	358,741			
	Harvest unrepresented	28,102			
	Total Harvest	386,843			

Table 3.–Stock-specific harvest and standard deviation (SD) calculated using a stratified estimator for combined strata in the Central District drift gillnet fisheries and based on genetic analysis of mixtures of sockeye salmon harvested in the Upper Cook Inlet, 2022.

*Note: Northern Cook Inlet origin harvest includes JCL, SusYen, Fish, and KTNE reporting groups.

Source- ADF&G personal communication, Andy Barclay Division of Commercial Fisheries

			90% CI		
Area strata	Reporting Group	Harvest	5%	95%	SD
Central District drift gillnet (excluding corridor-only periods)					
	Crescent	3,407	0	14,615	5,343
	West	41,210	2,616	83,614	25,283
	JCL	34,612	20,915	50,819	9,206
	SusYen	49,204	7,775	89,354	24,333
	Fish	45,353	25,721	65,944	12,191
	KTNE	14,620	2,419	37,422	10,984
	Kenai	402,533	359,403	442,590	25,339
	Kasilof	97,586	71,576	124,437	16,226
	Harvest represented	688,526			
	Harvest unrepresented	690			
	Total Harvest	689,216			
Central District drift gillnet (corridor-only periods)					
	Crescent	2,726	29	6,645	2,048
	West	1,145	0	5,955	2,252
	JCL	5,250	2,591	8,749	1,874
	SusYen	26,046	14,471	38,307	7,213
	Fish	2,451	311	5,243	1,565
	KTNE	3,063	97	7,256	2,367
	Kenai	147,109	133,847	159,875	8,025
	Kasilof	11,811	6,146	18,035	3,627
	Harvest represented	199,602			
	Harvest unrepresented	4,902			
	Total Harvest	204,504			

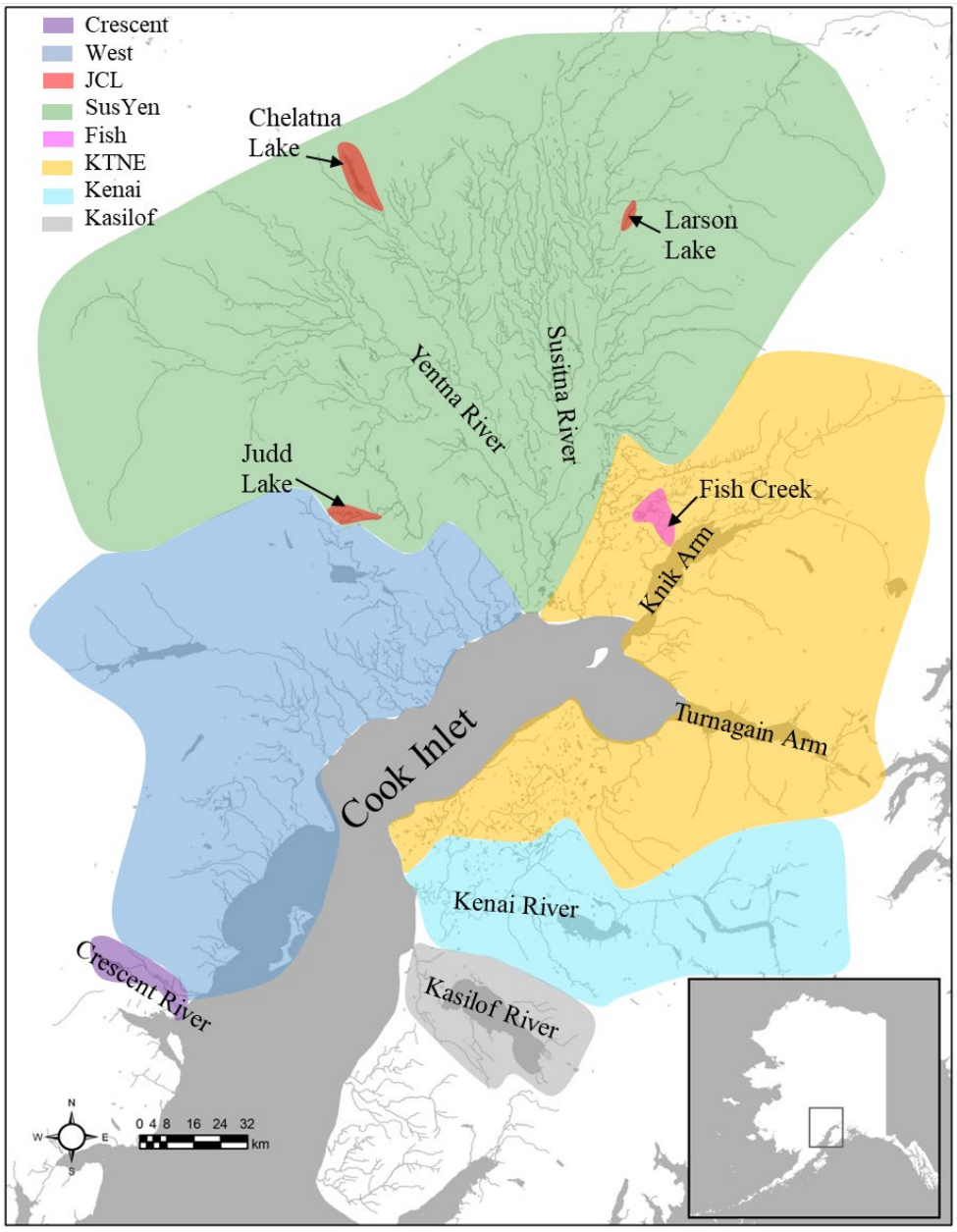

Figure 1.–Map of Cook Inlet showing reporting group areas for genetic mixed stock analysis of sockeye salmon harvest samples.

4. Using historical data, considering harvest by all other Upper Cook Inlet user groups under current fishing regulations, and with the department's current escapement goal ranges — how many Northern District set nets may realistically be fished throughout the July 20 - August 10 timeframe if the management objective was to provide a reasonable chance of attaining at least the mid-point level of each Northern Cook Inlet sockeye and coho salmon spawning escapement goal range, while at the same time providing a full season (June 25 - September 30) of harvest opportunity with a low probability of emergency in season restriction after August 10 for any Northern Cook Inlet user group on most years.

The department utilizes inseason information to adapt fisheries management strategy to meet established escapement or abundance objectives as directed in Board of Fisheries ratified management plans and in compliance with the Policy for the Management of Sustainable Salmon Fisheries and Policy for the Management of Mixed Stock Salmon Fisheries (5 AAC 39.222 & 5 AAC 39.220). From July 20 – August 6 the department may restrict the number of nets used in the Northern District from 1–3 nets based upon sockeye salmon abundance indices as the department deems appropriate. Attempting to generate an estimate of the optimal numbers of nets to achieve midpoints of multiple escapement goals, in multiple systems, for multiple species, is not possible due to the number of variables that change from season to season and the nature of salmon migration through Cook Inlet. Additionally, the department manages fisheries to meet escapement goal ranges and attempts to vary escapements within those ranges over time.

5. During the past 25 years, are there any fishing seasons that achieved at least the mid-point level of each Northern Cook Inlet sockeye salmon and coho salmon spawning escapement goal? If so, which year(s) did this occur?

In the years 2003, 2004, 2006, 2007, and 2023 all monitored stocks of sockeye salmon in Northern Cook Inlet did achieve at least the midpoint of their respective escapement goal ranges (Table 4). The years 2000, 2001, 2002, 2005, 2007, 2008, and 2013 met the criteria listed in question 5 for coho salmon runs on streams with escapement goals in place (Table 5). The department manages fisheries to meet escapement goal ranges and attempts to vary escapements within those ranges over time.

Table 4.–Northern Cook Inlet Sockeye Salmon Escapement and goal ranges, 1999–2023.

	Larson Lake		Chelatna Lake		Judd Lake		Fish Creek		Yentna River	
Year	Abundance Goal	Abundance Estimate[a]	Abundance Goal	Abundance Estimate[a]	Abundance Goal	Abundance Estimate[a]	Abundance Goal	Abundance Estimate[a]	Abundance Goal	Abundance Estimate
1999	-	18,943	-	-	-	-	50,000	26,667	100,000-150,000	99,029
2000	-	11,987	-	-	-	-	50,000	19,533	100,000-150,000	**133,094**
2001	-		-	-	-	-	50,000	43,469	100,000-150,000	83,532
2002	-		-	-	-	-	20,000 - 70,000	**90,483**	90,000-160,000	78,591
2003[b]	-		-	-	-	-	20,000 - 70,000	**92,298**	90,000-160,000	**180,813**
2004[b]	-		-	-	-	-	20,000 - 70,000	**22,157**	90,000-160,000	71,281
2005	-	9,955	-	-	-	-	20,000 - 70,000	14,215	75,000-180,000	36,921
2006[b]	-	57,411	-	-	-	40,633	20,000 - 70,000	32,566	90,000-160,000	92,896
2007[b]	-	47,924	-	-	-	57,251	20,000 - 70,000	27,948	90,000-160,000	79,901
2008	-	34,595	-	74,469	-	53,681	20,000 - 70,000	19,339	90,000-160,000	90,146
2009	15,000 - 50,000	**40,933**	20,000 - 65,000	17,703	25,000 - 55,000	**44,616**	20,000 - 70,000	**83,477**	-	-
2010	15,000 - 50,000	20,324	20,000 - 65,000	37,784	25,000 - 55,000	18,446	20,000 - 70,000	**126,829**	-	-
2011	15,000 - 50,000	12,190	20,000 - 65,000	**70,353**	25,000 - 55,000	**39,984**	20,000 - 70,000	**66,678**	-	-
2012	15,000 - 50,000	16,566	20,000 - 65,000	**36,736**	25,000 - 55,000	18,715	20,000 - 70,000	18,813	-	-
2013	15,000 - 50,000	21,821	20,000 - 65,000	**70,555**	25,000 - 55,000	14,088	20,000 - 70,000	18,912	-	-
2014	15,000 - 50,000	12,040	20,000 - 65,000	26,212	25,000 - 55,000	22,416	20,000 - 70,000	43,915	-	-
2015	15,000 - 50,000	23,176	20,000 - 65,000	**69,897**	25,000 - 55,000	**47,934**	20,000 - 70,000	**102,296**	-	-
2016	15,000 - 50,000	14,313	20,000 - 65,000	**67,836**	25,000 - 55,000	-	20,000 - 70,000	**46,202**	-	-
2017	15,000 - 35,000	**31,866**	20,000 - 45,000	26,986	15,000 - 40,000	**35,731**	15,000 - 45,000	**61,469**	-	-
2018	15,000 - 35,000	23,444	20,000 - 45,000	20,437	15,000 - 40,000	**30,844**	15,000 - 45,000	**71,556**	-	-
2019	15,000 - 35,000	9,699	20,000 - 45,000	26,303	15,000 - 40,000	**44,145**	15,000 - 45,000	**76,031**	-	-
2020	15,000 - 35,000	12,018	20,000 - 45,000	-	15,000 - 40,000	**31,220**	15,000 - 45,000	**64,234**	-	-
2021	15,000 - 35,000	21,987	20,000 - 45,000	-	15,000 - 40,000	**49,250**	15,000 - 45,000	22,271	-	-
2022	15,000 - 35,000	17,436	20,000 - 45,000	-	15,000 - 40,000	**38,442**	15,000 - 45,000	**58,351**	-	-
2023[b]	15,000 - 35,000	**38,069**	20,000 - 45,000	-	15,000 - 40,000	-	15,000 - 45,000	**44,764**	-	-

[a] Enumeration etimates prior to 2023 reflect minor adjustments to the escapement database.

[b] Northern District set gillnet fishery restricted and midpoint of goal range was achieved

=achieved established goal

BOLD =achieved midpoint of goal range

Note* Shading indicates meeting of the abundance goal

Table 5.–Northern Cook Inlet Coho Salmon Escapement and goal ranges, 1999–2023.

Year	Deshka River (weir)	SEG	Little Susitna (weir)	SEG	Fish Creek (weir)	SEG	McRoberts Creek (foot survey)	SEG
1999	4,563 [a]		3,017	9,600-19,200	1,766	2,700	12	
2000	26,387		15,436	9,600-19,200	5,218	2,700	657	
2001	29,927		30,587	9,600-19,200	9,247	2,700	1,019	
2002	24,612 [a]		47,938	10,100-17,700	14,651	1,200-4,400	2,473	450-700
2003	17,305		10,877	10,100-17,700	1,231	1,200-4,400	1,421	450-700
2004	62,940		40,199	10,100-17,700	1,415 [c]	1,200-4,400	4,652	450-700
2005	47,887		16,839 [a]	10,100-17,700	3,011 [c]	1,200-4,400	1,464	450-700
2006	59,419 [a]		8,786 [a]	10,100-17,700	4,967 [c]	1,200-4,400	2,389	450-700
2007	10,575		**17,573**	10,100-17,700	6,868 [c]	1,200-4,400	**725**	450-700
2008	12,724		18,485	10,100-17,700	4,868 [c]	1,200-4,400	1,890	450-700
2009	27,348		9,523	10,100-17,700	8,214	1,200-4,400	1,331	450-700
2010	10,393		9,214	10,100-17,700	6,977	1,200-4,400	242	450-700
2011	7,508 [a]		4,826	10,100-17,700	1,428 [c]	1,200-4,400	261	450-700
2012	6,825		6,779	10,100-17,700	1,237	1,200-4,400	213	450-700
2013	22,341		13,583 [a]	10,100-17,700	7,593 [a]	1,200-4,400	663	450-700
2014	11,578		24,211	10,100-17,700	10,283	1,200-4,400	122	450-1,400
2015	10,775		12,756 [b]	10,100-17,700	7,912	1,200-4,400	571	450-1,400
2016	6,820 [a]		10,049	10,100-17,700	2,484 [c]	1,200-4,400	106	450-1,400
2017	36,869	10,200-24,100	**17,781**	10,100-17,700	8,966	1,200-4,400	607	450-1,400
2018	12,962	10,200-24,100	7,583 [a]	10,100-17,700	5,022	1,200-4,400	758	450-1,400
2019	10,445	10,200-24,100	4,229 [a]	10,100-17,700	3,025	1,200-4,400	162	450-1,400
2020	5,368 [b]	10,200-24,100	9,779	9,200-17,700	4,555 [c]	1,200-6,000	735	250-700
2021	3,431 [b]	10,200-24,100	10,229 [ad]	9,200-17,700	6,462 [c]	1,200-6,000	1,499	250-700
2022	5,444 [b]	10,200-24,100	2,792 [ad]	9,200-17,700	36 [c]	1,200-6,000	1,899	250-700
2023	1,817 [a]	10,200-24,100	2,949 [ad]	9,200-17,700	1,534	1,200-6,000	378	250-700

note: outlined boxes denote years with an escapement goal in place.

=achieved at least the midpoint of the SEG range.

Bold font =achieved at least the midpoint of the SEG range after a sport restriction.

[a] incomplete count due to flooding.

[b] incomplete count as a result of pulling weir early due to budget restraints.

[c] incomplete count: 2004-2008, 2011, 2016, 2020-2022 weir was removed on August 15 before the majority of the coho run.

[d] escapement equals weir count minus harvest (Statewide Harvest Survey) upstream of the weir; weir count 10,751 (2020), 10,923 (2021), 3,162 (2022), 3,726 (2023).

6. If there are fishing seasons during the past 25 years where at least the mid-point level of each Northern Cook Inlet sockeye and coho salmon spawning escapement goal range was attained — Did this ever occur without in season emergency restriction (to any Northern Cook Inlet user group after August 1)? If so, which year(s)?

For the Northern District commercial set gillnet fishery in 2003, 2004, 2006, 2007, and 2023 restrictions were implemented by emergency order.

Two years met the criteria listed in question 6 for coho salmon runs in 2007 and 2017 on the Little Susitna River and in 2007 on Jim Creek (Table 5). Note that strong coho salmon runs experienced in 2007 and 2017 were initially perceived as weak runs earlier in these seasons as these were very late runs. The 2007 run on the Little Susitna was 7 days late and in 2017, the run was nine days late. In 2007, all Knik Arm area streams, except Fish Creek and the Eklutna Tailrace, were closed to the retention of coho salmon midseason and this EO was rescinded a week later. In 2017, bait use was prohibited August 6 on the Little Susitna and this EO rescinded August 23.

7. What is the Department's best estimate for the number of Northern Cook Inlet coho salmon caught by the drift fleet for each opening in 2020, 2021, 2022, and if available 2023? Please discuss the department's best data for drift coho harvests after August 1 through season's end by emergency order.

The department does not have stock specific estimates for coho salmon in the drift gillnet fishery for 2020, 2021, 2022, or 2023. The most recent stock specific coho salmon harvest information estimated for the Central District Drift Gillnet was 2013–2016 (Figure 2. Barclay et al., 2019).

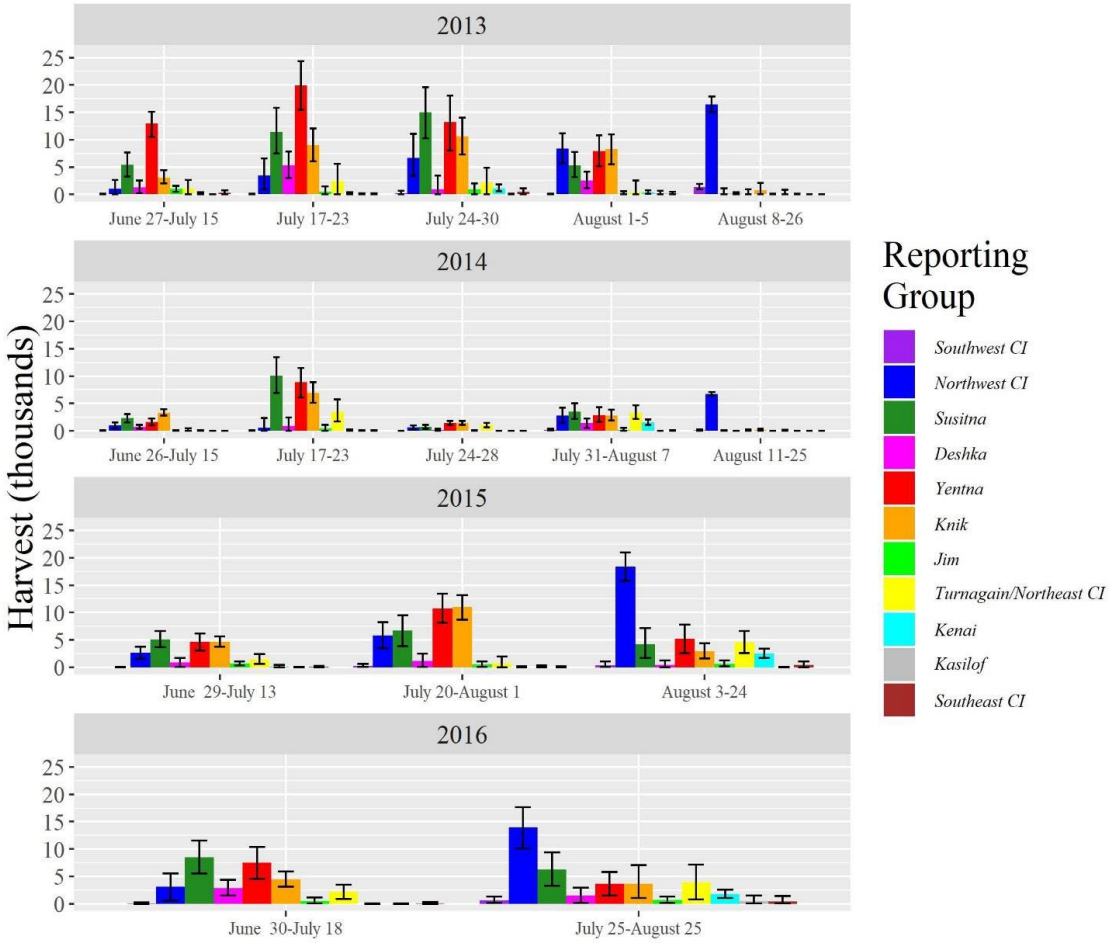

Figure 2.–Central District drift gillnet fishery by date 2013–2016; harvest estimates and 90% credibility intervals for coho salmon by stock.

8. During the 2023 sockeye season ADF&G did not install or staff the Judd Lake sockeye salmon weir project. What happened with the funding for that project? Since Commercial Fish did not operate Judd Lake weir in 2023 — would it be willing to fund and staff each of the three Susitna sockeye weir projects (Chelatna Lake, Judd Lake, and Larson Lake) in 2024?

The Judd Lake weir was not operated in 2023 due to issues with hiring and staffing the weir. Funding not utilized in a given fiscal year may be reallocated to other needs within the region. General Funds do not rollover between fiscal years and the FY25 request includes funding for Judd and Larson Lakes only. We do not anticipate operating Chelatna River Weir in the near future. Please see attached PDF titled "Aerial Survey Memo Follow-Up" for details about subsequent department efforts to evaluate sockeye salmon abundance in the Yenta River Drainage for 2023.

9. Would you please provide 2023 Northern District season total Chinook, sockeye, and coho salmon harvest numbers for each commercial statistical area?

Commercial salmon harvest by statistical area in the Northern District is not being publicly released due to confidentiality requirements not being met in 2023. The finest scale of harvest information the department is able to release is at the subdistrict level. This information is available in the 2023 Upper Cook Inlet Season Summary which was released on October 27, 2023 and can be found at the link below.

https://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1546815985.pdf

10. Does ADF&G intend to staff either the Little Susitna River Public Use Facility or Susitna Landing on a similar schedule as occurred prior to this year during the 2024 season? Please explain.

We have moved away from using concessionaires at Su Landing and implemented online reservations with camp hosts volunteers in the summer. So although there is a host there, we don't have a continual staff presence at either facility during the summer. Our FW Tech IV typically starts his day at Susitna Landing, but then heads out to do work at other access sites as needed. Although we had a lot of work to accomplish at Susitna Landing this past summer, he did spend quite a bit of his time there (but not on a regular schedule). Access staff do typically visit Little Susitna PUF weekly or biweekly. Similar to 2023, we plan to have (volunteer) campground hosts at Little Susitna PUF and Susitna Landing beginning about mid-May through the end of September.

11. How many Chinook salmon would ADF&G estimate were harvested from the Eklutna Tailrace/Knik River sport fishery in 2023? From the Ship Creek sport fishery in 2023?

The mean 5-year average of king salmon harvested at the Eklutna Tailrace is 440 king salmon; however, only 90 fish were estimated as harvested in 2022, representing diminished returns in recent years. Based on these estimates of harvest from the SWHS and that wild stocks returned poorly in 2023, we'd expect a harvest level similar to that experienced in 2022 at the Eklutna Tailrace. One difference in 2023 was greater success reported from boat anglers fishing the side channel below the mouth of the Tailrace than past years. For this reason, its possible harvest may be over 100 fish, but not likely above 400 fish.

We do not have estimates for 2023. Statewide Harvest Survey (SWHS) results for 2023 will be available in October 2024.

Table 6.- Historical harvest of Ship Creek Chinook salmon (data source: SWHS):

	Ship Creek	
Year	Catch	Harvest
2011	1,171	600
2012	154	113
2013	1,265	824
2014	1,245	882
2015	3,002	1,761
2016	2,540	1,922
2017	910	635
2018	451	411
2019	1,412	1,333
2020	1,207	879
2021	2,210	1,601
2022	582	429
Average 2019–2022	1,353	1,061

12. How many coho salmon would ADF&G estimate were harvested from the Little Susitna River sport fishery and Deshka River sport fishery in 2022? And in 2023? What is an average sport fishery coho salmon exploitation rate for Little Susitna River? For the Deshka River?

An estimated 2,114 coho salmon were harvested in the Little Susitna coho salmon fishery and 1,936 coho salmon harvested in the Deshka River in 2022. In 2022, no emergency orders were issued because indices of run strength reflected at least an average run of coho salmon to NCI. The weir on the Little Susitna was flooded the majority of the season, although counts going into the flood around August 6 suggested the SEG would be achieved and average to above average fishing success was reported by anglers. It would be difficult to guess what harvest will be in 2023 at these sites; these estimates are forthcoming in the fall of 2024. In general, a weak run of coho salmon was experienced throughout NCI in 2023 resulting in the eventual closure of the Little Susitna and Deshka Rivers. Weak runs experienced on the Deshka River in 2011, 2012, and 2016 resulted in sport harvest of about 1,700 coho salmon and weak runs observed on the Little Susitna River in 2011 and 2012 resulted in a sport harvest of about 2,100 fish.

The average sport harvest rate for coho salmon on the Little Susitna River is 35% and on the Deshka River, 17%.

13. What is the reported permit days of effort, sockeye harvest, and coho salmon harvest from the Fish Creek and lower Susitna River personal use fisheries in 2023?

Personal use fishery estimates will not be available until later this winter once all late reported permits have been accounted for. Below is a table of recent year average effort and harvest. We would expect below average harvest of coho salmon in 2023 due to a weak run this year.

Table 7.–Susitna River and Fish Creek Personal Use Fishery Average Effort and Harvest

	Days Open	Days Fished	Sockeye	Coho	Pink	Chum	Total
Susitna R. '20-'22 Ave	6	274	1,961	722	469	117	3,276
Fish Cr. '18-'22 Ave	9	2,243	22,574	1,340	1,006	213	25,136

14. What is the current stock status (population size) for the five species of salmon returning to the Eklutna River drainage? How much would ADF&G expect those populations to increase if the proposed amount of water from the City of Anchorage waterline was allowed into the Eklutna Riverbed downstream of the dam site?

    The department does not have any assessment projects monitoring fish in the Eklutna River drainage and does not know the number of salmon that return annually. The department has documented five species of salmon in parts of Eklutna River drainage and monitors sport fishing effort through the statewide harvest survey (SWHS). Angler responses to the SWHS are low for the Eklutna River drainage most likely due to challenging access and low fishing participation. Stream surveys have been conducted by other organizations on sections of the river, for certain salmon species.

    In the Eklutna River drainage, the rate of recolonization or what increase in salmon populations could occur if the proposed amount of water from the City of Anchorage waterline was allowed, is unknown. The changes to spawning habitat and the success of spawning salmon is unknown.

15. Based on lake size, and in comparison to, similar Upper Cook Inlet glacial systems like Chelatna Lake, Crescent Lake, Tustumena Lake, and Skilak Lake, what is the potential size of annual salmon returns to the Eklutna River drainage if water from Eklutna Lake was to once again flow downriver from the lake in sufficient volume to allow salmon passage and rearing throughout the entire year between the lake and Knik Arm?

    A comparison to other sockeye salmon systems is extremely challenging and the potential size of annual salmon returns to Eklutna River drainage has not been determined. Each drainage that supports sockeye salmon has unique characteristics including water chemistry, spawning and rearing habitat. There is no drainage which has the same characteristics as the Eklutna River drainage. Eklutna Lake is a glacial lake and to our knowledge has very low productivity, little food source and habitat to support fish spawning and rearing or living in the lake. A population of land locked sockeye salmon (kokanee) are found in Eklutna Lake. Although the population size of the kokanee is unknown, indicators from fish sampled are that average size is small and number of eggs carried by individuals is very low. With limited information and from the indicators of the kokanee sampled in Eklutna Lake, it is unknown if Eklutna Lake will sustain a population of anadromous sockeye salmon.

2023 Summary

COOK INLET SPORT FISH MANAGEMENT AREAS
Northern Cook Inlet, Northern Kenai Peninsula, and Lower Cook Inlet

Northern Cook Inlet Management Area

Greater Susitna River/ Knik Arm Area
Below average escapements since 2012 have resulted in preseason and inseason restrictions and closures on the Susitna and Little Susitna River drainages. This year marked the fourth year of king salmon management under four stock-based goals set on the Susitna River drainage (Deshka, Yentna, Eastside, and Talkeetna rivers). The preseason forecast for Deshka River king salmon was for a total run 7,243 king salmon. Given a forecast below the low end of the BEG and the BEG being missed in 2022, the Deshka River king salmon fishery started the 2023 season closed as did fisheries within the Talkeetna and Eastside Susitna areas. Catch-and-release fishing was allowed by emergency order on the Yentna River drainage and the Little Susitna River as the optimal escapement goal (OEG) on the Yentna River and the sustainable escapement goal (SEG) on the Little Susitna River were attained in 2022.

Westside Susitna Tributaries
The BEG for the Deshka River of 9,000 - 18,000 king salmon was not achieved in 2023 despite the sport fishery being closed throughout the season. The run was four days late relative to historical run timing. The final weir count was 3,741 king salmon. Aerial escapement surveys were conducted in late July on three streams contributing to the Yentna River king salmon stock: Lake Creek, Talachulitna, and Peters Creek. Assessment of the Yentna River OEG of 16,000 – 22,000 is pending data analysis; however, all three aerial counts were well below average. The age composition of the Deshka River king salmon run and forecast for the 2024 season in pending analysis of age data collected at the Deshka River weir.

Management Actions
- A preseason emergency order effective May 1, 2023, closed king salmon fishing in the Susitna River drainage, except in the Yentna River, which was restricted to catch-and-release only. Gear was restricted to only one unbaited, single-hook, artificial lure.

Eastside Susitna and Talkeetna Tributaries

Management decisions for Eastside Susitna streams (Units 2, 3, 5, and 6) are based on postseason aerial surveys of eight streams used to estimate run size and escapement of the Eastside (Unit 2 streams along the Parks Highway) king salmon stock and the Talkeetna River stock, which are two stock goals in place since 2020. Counts were successfully conducted on Willow, Little Willow, North Fork Kashwitna, and Montana creeks that collectively contribute to the Eastside king stock and Clear and Prairie creeks that contribute to the Talkeetna stock. Assessment of the Eastside and Talkeetna stock goals is pending data analysis; however, counts on these systems were some of the lowest on record. A survey count of 494 on the Chulitna River was well below the SEG of 1,200 – 2,900 fish.

Management Actions

- A preseason emergency order effective May 1, 2023, closed king salmon fishing on Eastside Susitna (Unit 2) and the Talkeetna River (Unit 5). Gear was restricted to only one unbaited, single-hook, artificial lure.

Knik Arm

The SEG for the Little Susitna River is 2,100 - 4,300 king salmon as assessed by weir and 700 - 1,500 fish as assessed by post season aerial survey. This weir-based goal is the primary goal used for assessing escapement unless flooding or some other event results in an incomplete weir count. Use of video at this site has enabled fish to be counted even during periods of high spring runoff when water clarity is poor as was the case throughout the majority of the 2023 season. Cold water temperatures likely impeding upstream migration of king salmon followed by flooding that occurred during the last 10 days of June made assessment of run strength using weir counts difficult. However, daily counts post recovery of the weir following the flooding were below past years in which the goal was achieved. In addition, reports of low fishing success from anglers, guides, and staff also indicated a much weaker run than in 2022 when the escapement goal was narrowly achieved. The sport fishery was closed by emergency order on July 6. The final weir count of 799 was incomplete.

Management Actions

- A preseason emergency order effective May 1, 2023, restricted king salmon fishing in the Little Susitna River drainage to catch-and-release only. In addition, only one unbaited, single-hook, artificial lure was allowed in the waters normally open to king salmon fishing.
- On July 6, the Little Susitna was closed to sport fishing by Emergency Order.

West Cook Inlet

Sport fisheries on the Chuitna, Theodore, Lewis, and the Beluga rivers drainages are closed by regulation. An aerial survey was conducted on the Chuitna River in which 372 king salmon were counted, well below the SEG of 1,000 – 1,500 fish. The survey of the Theodore River was not completed in 2023.

Management Actions

- A preseason emergency order effective May 1, 2023, closed king salmon fishing on all West Cook Inlet streams not already closed by regulation.

Susitna Tributaries

A weir was operated to count sockeye salmon escapement into Larson Lake, which drains into the Talkeetna River via Larson Creek (Susitna drainage). Weirs on Chelatna Lake (Lake Creek) and Judd Lake (Talachulitna River) were not operated this year due to budget reductions. The sport fishery in Larson Creek, which occurs at the confluence of Larsen Creek and the Talkeetna River, is in relatively close proximity to the weir, allowing for timely inseason management of the fishery. Water levels were favorable toward consistent daily fish passage and fishing success throughout the season. The Larson Creek SEG of 15,000 - 35,000 sockeye salmon was achieved on August 1 with a final count of 38,069 fish.

A Susitna River personal use dip net fishery was implemented by the Board of Fisheries in 2020 to take place on the lower Susitna River from a point located approximately one mile below the old Susitna Station, downstream to the Alexander Creek turnoff/tip of Bell Island. This fishery is remote and only accessible by boat or short field performance aircraft capable of landing on gravel bars. The fishery is part of the Upper Cook Inlet Personal Use Salmon Fishery management plan and occurs each Saturday and Wednesday between 6:00 a.m.-11:00 p.m. from July 10 through July 31. This was the third year of this fishery. Fishing effort mostly mirrored last season with relatively low participation. Fishing success increased incrementally with each period through the end of July.

Management Actions

- No management actions were implemented during the 2023 season.

Knik Arm

A weir is operated on Fish Creek to assess escapement and as a tool to manage the personal use dip net fishery. The SEG for Fish Creek is 15,000 - 45,000 sockeye salmon. By management plan, a personal use dip net fishery may be opened by emergency order between July 15 and July 31, if the escapement can be projected to be above 35,000 fish. The dip net fishery was opened on July 22 for 10 days. Positive dipnetting reports combined with a strong run suggests harvest estimates may be average to above average (5-yr mean harvest of 25,000 salmon; 22,500 sockeye salmon). The weir was successfully operated through the duration of the run, in which 44,960 sockeye salmon were counted, near the upper end of the SEG range of 15,000 – 45,000 fish.

Management Actions

- On July 22, the Fish Creek Personal Use Dip Net Fishery was opened for all salmon species, except king salmon through July 31.
- On August 1, sport fishing was allowed 7 days a week and the bag limit increased to six per day and six in possession on Fish Creek targeting sockeye salmon.

Susitna Tributaries

Funding was secured to operate the Deshka coho weir through the entirety of the season. Flooding prevented counting fish during the outset of the season through July 27. However, post flood weir indicated far fewer fish missed than needed to project achievement of the SEG of 10,200 – 24,100 fish. Further, reports by guides and anglers and observations by staff indicated below average fishing success on the Deshka and across other Susitna River drainage streams. An emergency order was issued mid-August to close the Deshka River to the retention of coho salmon and reduce the bag limit to one coho salmon and prohibit the use of bait in all other waters of the Susitna River drainage. Another more severe flood was experienced late in the season, ending the weir project on August 25, about 90% through the historical run. A final count of 1,817 is considered to be incomplete; however, it is unlikely the SEG would have been achieved.

Management Actions

- On August 14, the bag limit for coho salmon was reduced to one fish and bait prohibited in the Susitna River drainage.
- On August 17, the Deshka River was closed to the retention of coho salmon and bait prohibited.

Knik Arm

The Little Susitna weir was inundated by flood waters at the outset of the season. However, as the weir was again functional starting July 24, it is unlikely many coho salmon were missed. Initially, weir counts were favorable and produced an upward trending projection that peaked near the upper end of the SEG range by August 4, near the quarter point of the historical run. Bait went into effect on August 6 per regulation. Weir counts fell off as much as a week early relative to historical run timing, indicating an early weak run. Overall fishing success was reportedly low. By mid-August, emergency orders prohibited the use of bait, followed by closure of the sport fishery to the retention of coho salmon. Additional flooding later in the season resulted in losing the count after August 25 or by the 80th percentile of the average historical run. A weir count of 3,726 fish is considered incomplete; however, it is likely the SEG of 9,200-17,700 was missed in 2023.

Fish Creek weir was funded to operate for the full coho salmon season. The SEG of 1,200 – 6,000 fish was attained on August 16, with a final count of 1,534 fish. The run was eight days early based on the midpoint of the average historical run.

Jim Creek weir was funded to operate this season. A weak showing of coho salmon prompted closing the sport fishery to salmon fishing by mid-August at about the quarter point of the historical run. The weir count was ultimately lost to flooding that inundated the weir starting August 28 or at about the 70% point of the historical run. The SEG for Jim Creek of 250 - 700 coho salmon is assessed post season by a foot survey of McRoberts Creek, a small spawning tributary within the Jim Creek system. A survey conducted on September 26 counted 378 coho salmon, within the goal range.

Management Actions

- On August 12, bait use was prohibited on the Little Susitna River.
- On August 17, the bag and possession limit was reduced to one coho salmon on the Little Susitna River.
- On August 19, the Little Susitna River was closed to the retention of coho salmon.

- On August 19, Jim Creek was closed to salmon fishing.

West Cook Inlet

Coho salmon escapement is not monitored on West Cook Inlet (WCI) area streams and ADF&G must rely on trends in harvest and angler effort taken from the Statewide Harvest Survey and reports from anglers and guides when assessing these stocks. Sport fishing success as reportedly good this season in tributaries of WCI.

- No management actions were implemented during the 2023 sport fishing season.

Northern Kenai Peninsula Management Area

Kenai River - Early Run

The outlook for the early-run of Kenai River king salmon in 2023 was below average, with a large fish (>75 cm mid eye to tail fork length or approximately >34 inches in total length) forecast of 2,914 fish. The 2023 forecasted total run was less than the optimal escapement goal (OEG) of 3,900 – 6,600 large fish which starts the sport fishery closed. The total estimated passage through June 30, 2023 at the river mile 14 sonar was 1,975 large king salmon and the preliminary spawning escapement estimate and total inriver run estimate was 1,975 large early-run king salmon.. The run exhibited generally low abundance across all age classes and is preliminarily the second lowest run in the historical data set. The mid-point of the run occurred on June 18 which is 6 days late when compared to the historical mid-point.

Preliminary age composition estimates from length groups show a noticeable low presence of 2-ocean fish but overall, there was a low abundance of all age classes.

Neither the OEG nor the sustainable escapement goal (SEG) were achieved in 2023. The SEG has been achieved or exceeded in four of the last seven years. The OEG has been achieved or exceeded in three of the last seven years.

Management Actions

- A preseason emergency order effective May 1, 2023, king salmon fishing was closed from the Kenai River mouth upstream to the outlet of Skilak Lake until June 30.

- Netting (preliminary)
  - Approximately 51% were large fish or ≥75 cm in total length.
  - Sex ratio of large fish ≥75 cm was 61% male and 39% female.
  - King salmon of all sizes sampled were predominately by ocean-age 3 fish (39%), ocean-age 1 (29%), ocean-age 4 fish (20%), and ocean-age 2 fish (12%).

Table 1. Summary of preliminary catch, harvest, and escapement, Kenai River early-run king salmon (≥ 750 mm) fishery, 2023.

Escapement Goal Range	3,900 – 6,600 large king salmon (≥ 75 cm)
Total Catch[a]	0
Total Harvest[a]	Below sonar =0; Above sonar =0; Total =0
Sonar Estimate In-River	1,975
Preliminary Escapement	~ 1,975

[a]Lower River (below Soldotna Bridge).

Kenai River - Late Run

The outlook for the late-run of Kenai River king salmon in 2023 was well below average, with a large king salmon (>75 cm mid eye to tail fork length) forecast of approximately 13,630 fish. The 2023 forecasted total run was less than the optimal escapement goal (OEG) of 15,000 – 30,000 fish and the fishery started closed. The total estimated passage through August 27, 2023, at the river mile 14 sonar was 13,922 large king salmon and the preliminary escapement is 14,502 large fish. The mid-point of the run occurred on July 27 which is on the mean historical mid-point.

The predominate age classes for all sizes of fish are the ocean-age 4 (38%), ocean-age 3 (24%), ocean-age 1 fish (21%), ocean-age 2 (16%), and ocean-age 5 (1%). The low abundance of both predominate large fish age classes (ocean-age 3 and 4) indicates poor production from 2017 and 2018 parent years and corresponds with the overall low abundance of the 2023 return.

The OEG was not achieved and the SEG was achieved in 2023. The SEG has been achieved in four of the last seven years. The lower bound of the OEG has not been achieved since it was created in 2020.

Management Actions

- A preseason emergency order effective July 1, 2023, king salmon fishing was closed from the Kenai River mouth upstream to the outlet of Skilak Lake.
- On August 1, 2023 bait and multiple hooks were prohibited from the mouth of the Kenai River upstream to the outlet of Skilak Lake to reduce incidental catches of king salmon while fishing for other species.
- On August 16, 2023 the prohibition of bait and multiple hooks was extended from the mouth of the Kenai River upstream to the outlet of Skilak Lake to reduce incidental catches of king salmon while fishing for other species.

- Netting (preliminary)
  - Approximately 56% of king salmon were ≥75 cm in total length.
  - Sex ratios for large fish >75 cm was 51% male and 49% female.
  - King salmon of all sizes sampled were predominately ocean-age 4 fish (38%) followed by ocean-age 3 fish (24%), ocean-age 1 fish (21%), ocean-age 2 (16%) and ocean-age 5 (1%).

Table 1. Summary of preliminary catch, harvest, and escapement, Kenai River late-run king salmon (≥ 75 cm) fishery, 2023.

Escapement Goal Range	15,000 – 30,000 large king salmon (≥75 cm)
Total Catch[a]	0
Total Inriver Harvest[a]	Below sonar =0; Above sonar =0; Total =0
Sonar Estimate In-River	13,922
Preliminary Escapement[b]	Approximately 14,502

[a] Lower River (below Soldotna Bridge).

[b] Includes estimate of king salmon that spawn downstream of sonar.

Kasilof River

In June 2023, approximately 91,801 king salmon smolt were stocked into Crooked Creek to augment natural production and enhance recreational sport fishing opportunity in the Kasilof River. The wild component of the Crooked Creek early-run king salmon return is managed to achieve a SEG of 700 – 1,400 king salmon. The estimated escapement of wild (naturally-produced) king salmon was 500 fish. The egg take goal for future stocking of Crooked Creek was 33 pairs of naturally-produced king salmon of which 22 pairs were spawned in 2023.

Management Actions

- A preseason emergency order effective May 1, 2023, the early-run king salmon bag and possession limits were restricted to two hatchery-produced fish, 20 inches or greater in length in the Kasilof River drainage. The retention of naturally-produced king salmon was prohibited. The use of bait and multiple hooks was prohibited downstream of the Sterling Highway Bridge until May 16 when bait is allowed by regulation. Multiple hooks continued to be prohibited.
- On July 1, 2023, the bag and possession limit for king salmon 20 inches or greater in length was one hatchery-produced fish only, and bait and multiple hooks were prohibited from the mouth of the Kasilof River upstream to the Sterling Highway Bridge.

Kenai River

The 2023 Upper Cook Inlet (UCI) sockeye salmon forecast projected a total run of 5.12 million fish: 2.82 million fish to the Kenai River, 1.13 million fish to the Kasilof River, with the remaining fish being comprised of SusitnaRiver, Fish Creek, and unmonitored systems. Based on the preseason forecast, the sockeye salmon run was managed on the middle tier for runs of 2.3 - 4.6 million Kenai River sockeye

salmon, with an inriver goal of 1.1 – 1.4 million sockeye salmon. On July 27, 2023, ADF&G projected the total Kenai River sockeye salmon run to be 3.4 million fish and the department continued to manage for the middle tier with an inriver goal of 1.1 – 1.4 million sockeye salmon. The preliminary inriver sonar passage estimate was 2,351,009 sockeye salmon. Subtracting the recent 10-year average harvest upstream of the sonar (304,570 fish) produces a preliminary escapement estimate of 2,046,439 sockeye salmon, which exceeds the sockeye salmon SEG 750,000–1.30 million fish. Final estimates will be available when the 2023 Statewide Harvest Survey is completed in the fall of 2024.

Management Actions

- On July 21, 2023, the sockeye salmon bag and possession limits were increased to six per day and twelve in possession.

Russian River - Early Run

The escapement goal for Russian River early-run sockeye salmon is a biological escapement goal (BEG) of 22,000 – 42,000 fish. The weir count on July 14, 2023, was 66,818 sockeye salmon and exceeded the BEG.

Management Actions

- On June 14, 2023, the Russian River Sanctuary Area opened early for sport fishing.
- On June 18, 2023, the sockeye salmon bag and possession limits were increased to six per day and twelve in from Skilak Lake upstream to ADF&G regulatory markers located approximately 300 yards upstream of the public boat launch at Sportsman's Landing (including the Russian River Sanctuary Area) and the Russian River from its mouth upstream to an ADF&G marker located approximately 600 yards downstream from the Russian River Falls.
- On June 24, 2023, the sockeye bag and possession limits were increased to nine per day, eighteen in possession from Skilak Lake upstream to ADF&G regulatory markers located approximately 300 yards upstream of the public boat launch at Sportsman's Landing (including the Russian River Sanctuary Area) and the Russian River from its mouth upstream to an ADF&G marker located approximately 600 yards downstream from the Russian River Falls.

Russian River - Late Run

The escapement goal for Russian River late-run sockeye salmon is an SEG of 44,000 – 85,000 fish. The final Russian River weir count on September 10, 2023, was 160,430 sockeye salmon and exceeded the SEG.

Management Actions

- On August 9, 2023, the bag and possession limits for sockeye salmon were increased to six per day and twelve in possession from Skilak Lake upstream to ADF&G regulatory markers located approximately 300 yards upstream of the public boat launch at Sportsman's Landing (including the Russian River Sanctuary Area) and the Russian River from its mouth upstream to an ADF&G marker located approximately 600 yards downstream from the Russian River Falls.

Kasilof River

The forecast for Kasilof River sockeye salmon was 1,126,000 fish. Kasilof River sockeye salmon are managed for a BEG of 140,000 – 320,000 salmon, and an OEG of 140,000 – 370,000 fish. The sockeye salmon sonar enumerated salmon passage through August 27, 2023, with a preliminary estimate of 932,896 fish.

Management Actions

- On June 30, 2023, sockeye salmon limits were increased in all portions of the Kasilof River open to salmon fishing to six per day and twelve in possession.

Kenai River

Kenai River coho salmon are not monitored for abundance inseason and are managed through angler reporting, observations, and conservative general regulation. Angler reports indicate that coho salmon were showing up in the harvest during the last week of July and catches were reported as fair to good through August and fair into September. September reports generally indicated a mix of angler success from day to day.

Management Actions

- On August 1, 2023, bait and multiple hooks were prohibited in the Kenai River from its mouth upstream to Skilak Lake to minimize incidental catch of late-run king salmon and was effective through August 15.
- On August 16, 2023, bait and multiple hooks were prohibited in the Kenai River from its mouth upstream to Skilak Lake to minimize incidental catch of late-run king salmon and was effective through August 30.

Kasilof River and Kenai River

Harvest and participation information for the 2023 season are currently being compiled and will be available this coming winter. The Kasilof River set gill net personal use fishery was closed by emergency order to reduce mortality of Kenai River bound king salmon. The Kasilof River dipnet fishery was open by regulation from June 25 through August 7, 2023. The area open to dipnetting was expanded for the Kasilof fishery on June 25. The Kenai River dipnet fishery opened by regulation on July 10 through July 31, with no retention of king salmon allowed by emergency order.

Harvest Reports

- Beginning in 2022 harvest reporting was required to be done online by August 15. Reminder letters were mailed to permit holders who have not yet returned their harvest record. Estimates of total harvest will be available in January 2024.

Management Actions

- On June 15, 2023, the Kasilof River personal use set gillnet fishery was closed.

- On June 25, 2023, the Kasilof River personal use dipnetting area was expanded. Dipnetting from the shore was allowed from ADF&G markers on Cook Inlet beaches upstream to the Sterling Highway Bridge and dipnetting from a boat was allowed from ADF&G markers located on Cook Inlet beaches upstream to ADF&G markers at approximately river mile 3 of the Kasilof River.
- On July 10, 2023, retention of king salmon in the Kenai River personal use dipnet fishery was prohibited.

Lower Cook Inlet Management Area

Anchor River

The 2023 preseason inriver forecast of 3,659 king salmon was below the sustainable escapement goal (SEG) of 3,800-7,600 fish. Given the uncertainty with recent annual runs, preseason restrictions were issued to close the fishery. King salmon escapement was monitored on the South and North forks of Anchor River beginning in early-May and continued throughout the run. The preliminary escapement estimate was 2,348 fish, which did not achieve the SEG. The cumulative run-timing mid-point (July 6) was 23 days late compared to the historical average mid-point of June 14.

Management Actions

- A preseason emergency order closed the Anchor River and Deep Creek to all sport fishing through July 15.

Ninilchik River

No preseason forecast was estimated for the 2023 wild Ninilchik River king salmon run. Hatchery king salmon are stocked in the Ninilchik River to support the inriver sport fishery. The fishery occurred for the three 3-day weekends with preseason restrictions that prohibited the retention of wild king salmon but liberalized the hatchery bag and possession limits from one to two fish 20” or longer. The use of multiple hooks and treble hooks were also prohibited with preseason restrictions, but bait was allowed. Effort generally increased over the weekend fisheries but declined through the continuous hatchery-only fishery that began on June 16. Fishing success was described as fair over the weekend fisheries and anglers consistently harvested hatchery king salmon. Harvest was poor to fair in the continuous fishery. The SEG of 750-1,300 wild king salmon was not achieved in 2023 for the second year in a row.

King salmon escapement was fully enumerated just above the fishery at approximately two miles upstream from the mouth. An instream video weir was operated from mid-May to early-August at this location, and the count was 550 wild king salmon and 993 hatchery king salmon. The mid-point of the wild and hatchery runs to the lower weir were June 20 and June 24, respectively.

The broodstock collection weir, located approximately five miles upstream from the mouth, was used to monitor escapement in regard to meeting the current SEG of 750 - 1,300 wild king salmon. The broodstock collection weir location also used instream video and was operated from mid-May through mid-August. After accounting for the removal of broodstock, the escapement was 328 wild king salmon, which did not meet the SEG. Based on weir counts at both locations, 66% of the wild king salmon and 68% of the hatchery king salmon counted through the lower weir also reached the broodstock collection weir.

Management Actions

- A preseason emergency order restricted the harvest of wild fish and increased the bag and possession limits of hatchery king salmon, 20 inches or greater in length, from one to two fish. The use of multiple hooks and treble hooks was also prohibited.

Deep Creek

No preseason forecast was estimated for the 2023 Deep Creek king salmon run. The sport fishery was closed with preseason restrictions based on management actions for the Anchor River. Deep Creek has a SEG of 350 king salmon and is assessed post-season via a single aerial survey. No survey was conducted in 2023 due to a lack of funding.

Management Actions

- A preseason emergency order closed the Anchor River and Deep Creek to all sport fishing through July 15.

Marine Fisheries

Sport fishing for king salmon in Cook Inlet was popular in the Winter (September 1-March 31) and the Summer (April 1-August 31) fisheries. The summer fishery north of Bluff Point began with preseason restrictions to protect king salmon returning to Cook Inlet drainages. The performance of these fisheries are only assessed post season with the Statewide Harvest Survey and charter logbook data, and harvest estimates will not be available until 2024. In the winter fishery, anglers found good success in January, but fishing success was lower in February and March. The summer fisheries were with poor success from April through mid-May when Upper Cook Inlet salt waters closed by preseason restrictions. From mid-May through early-August, small numbers of king salmon were caught throughout lower Cook Inlet and fishing improved in offshore locations throughout the remainder of the season.

Management Actions

- A preseason emergency order effective May 16, 2023, closed king salmon fishing in the Cook Inlet saltwaters north of the latitude of Bluff Point (59° 40.00' N. lat.) through July 31.
- A preseason emergency order effective May 16, 2023, reduced the king salmon bag and possession limits from 2 to 1 fish in the Cook Inlet saltwaters south of the latitude of Bluff Point (59° 40.00' N. lat.) through July 31.

Freshwater Fisheries

There are no preseason forecasts and no escapement goals for any lower Kenai Peninsula roadside stream (Anchor and Ninilchik rivers, Deep and Stariski creeks) coho salmon stocks. Weirs were operated on the Anchor River to enumerate escapement. The preliminary escapement count was 1,494 fish when the weirs were pulled on August 26 for the season due to flooding. The run was near the midpoint of the run when the

weir operation ended. The total escapement was projected to be 3,200 fish.

Sport fishing effort was low throughout August on all streams and was further reduced towards the end of August with flooding stream levels. The Statewide Harvest Survey estimates harvest for these fisheries and will not be available until 2024.

Marine Fisheries

Sport fishing for coho salmon in Cook Inlet was popular from late-July through early-September. Most effort was concentrated in offshore locations. The Statewide Harvest Survey estimates for this fishery will not be available until 2024.

Management Actions

- No management actions were implemented during 2023 for freshwater and marine coho salmon fisheries season.

Terminal Stocked Salmon Fisheries

Nick Dudiak Fishing Lagoon

In 2023, the stocking goals were met for Nick Dudiak Fishing Lagoon (NDFL) on the Homer Spit with approximately 315,000 king salmon smolt and 120,000 coho salmon smolt. This year's king salmon stocking was the sixth consecutive year with a 30% increase over historical king salmon stockings. The Statewide Harvest Survey estimates harvest for these fisheries will not be available until 2024. Overall, the king and coho salmon fisheries were likely similar to the harvest trends in recent years. There were several hundred king salmon harvested by anglers during the period open to snagging. During the period open to snagging for coho salmon, anglers harvested a couple hundred fish but was not as successful as the king salmon period open to snagging.

Management Actions

- Snagging was allowed in the NDFL from July 1 through July 4 to harvest the remainder of the king salmon milling in the lagoon prior to coho salmon returning.
- Snagging was allowed in the NDFL from August 16 through December 31 to harvest the remainder of the coho salmon run.

Personal Use Dip Net Fisheries

China Poot Creek

The China Poot Creek personal use dip net fishery does not require a permit for participation so there is no harvest and effort data available for 2023. The Commercial Fish Division conducts weekly foot surveys to count sockeye and pink salmon. There was a large build-up of over 500 sockeye salmon in the creek before the fishery opened on July 1, 2023. Success through most of July was fair to good. The success in this fishery is most likely attributed to changes in commercial fishing and cost recovery operations associated with the stocking. A stream survey was conducted on August 3 and over 500 sockeye salmon remained in the creek so the fishery season was extended for another week through August 13. Effort was low during the extension period but success was high for those that participated.

Management Actions

- The China Poot Personal Use Dipnet Fishery season was extended by 7 days and closed on August 13.

Marine Fisheries

The harvest of rockfish has increased steadily since 2013, and sustainable levels of rockfish harvest are currently unknown. The sport fishery is monitored with harvest data from SWHS and Charter Logbook program and biological data from port sampling program in the Homer Harbor. Preliminary stock assessment work was reviewed in spring 2023 and changes in the biological data along with the increased harvest are indicators of a possible change in the population structure of rockfish in this area. The 2022, rockfish harvest in Cook Inlet salt waters was over 60,000 fish which is the largest documented annual harvest. The 2023 harvest will not be finalized until fall 2024.

Management Actions

- Effective May 15 – December 31, 2023, the bag and possession limit for rockfish was reduced to 3 per day, 6 in possession.

East

All East Cook Inlet beaches remained closed to sport and personal use clamming for the start of 2023 until abundance surveys could be conducted in the spring. Surveys were conducted in April and May at both Clam Gulch and Ninilchik area beaches. Abundances of adult-sized razor clams at Clam Gulch were below the threshold outlined in the management plan to open the fishery. Abundances of adult-sized razor clams at Ninilchik were above the threshold outlined in the management plan to open the fishery for the first time since 2013. The sport and personal use fisheries were restricted to bag and possession limits of 15 and a season from July 1 through July 4. The area opened was from three miles north of the Ninilchik River to the tip of the Homer Spit. A creel census was conducted to monitor harvest and effort during low tide for all days the fishery was open at the primary access locations from the Ninilchik River south to Whiskey Gulch area. The preliminary effort estimate is 5,417 digger days for the entire survey area with 1,542 diggers days

on Ninilchik South beach. Total harvest was 22,886 adult razor clams and the beach with the highest harvest was Ninilchik North (7,773 adult clams). Based on this harvest and the spring abundance estimate, the harvest rate of adult clams was 2.3% at Ninilchik South, which was well below the maximum harvest rate of 10% outlined in the management plan.

Management Actions

- An inseason emergency order opened the Ninilchik Management area beaches within East Cook Inlet to personal use and sport clamming from 3 miles north of the Ninilchik River to the southernmost tip of the Homer Spit from July 1 through July 4.

West

The West Cook Inlet beaches remained open to sport, and personal use clamming in 2023. Harvest estimates for the sport fishery are not available yet, but clammers report good success at Polly Creek and Crescent River Bar areas with larger clams being found at Crescent River Bar.

Management Actions

- No management actions were implemented during the 2023 sport and personal use fisheries season.

Tanner Crab

Cook Inlet Tanner Crab

No trawl surveys were conducted in 2022 so the limited fishery was implemented for the 2022-2023 season. The sport and subsistence fisheries occurred from October 1, 2022, through February 28, 2023. The preliminary combined sport and subsistence Tanner crab harvest in the Cook Inlet & North Gulf Coast area was 7,739 male Tanner crabs. During the 2022-2023 season, 2,477 sport and subsistence permits were issued. Of these, 86% reported and will be eligible to receive a permit for the upcoming season. In total, 347 individuals did not report and are ineligible to receive a permit for the 2022-2023 season. Permits are only available through ADF&Gs online store.

Management Actions

No management actions were implemented for the 2022-2023 fishery season.

Table 1 – Select Southcentral Region Salmon Escapement Goals and Escapements for king salmon, 2014 to 2023 (preliminary).

	2023 Goal Range			Initial									Preliminary
System	Lower	Upper	Type	Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
KING SALMON														
Bristol Bay														
Nushagak River	55,000	120,000	SEG	2013	70,482	98,019	125,368	56,961	97,239	47,882	43,032	55,222	44,434	31,499
Alagnak River	2,700		LB SEG	2007	NC	917	1,283	435	NC	NC	NC	NC	NC	NC
Kodiak/Alaska Peninsula														
Karluk River	3,000	6,000	BEG	2011	1,182	2,777	3,434	2,600	3,155	3,898	3,344	2,796	2,629	378
Ayakulik River	4,800	8,400	BEG	2017	789	2,392	4,594	3,712	2,149	1,948	2,402	2,961	2,845	590
Chignik River	1,300	2,700	BEG	2002	2,895	2,041	1,843	1,137	825	1,517	1,278	1,072	661	267
Nelson River	2,400	5,000	BEG	2019	3,801	2,440	4,618	1,502	5,022	11,653	2,298	4,539	3,785	4,078
Upper Cook Inlet														
Alexander Creek	1,900	3,700	SEG	2020	911	1,117	754	170	296	1,297	596	288	NC	NC
Campbell Creek	380		LB SEG	2011	274	654	544	475	287	393	154	339	423	171
Chuitna River	1,000	1,500	SEG	2002	1,398	1,965	1,372	235	939	2,115	869	806	NC	372
Chulitna River	1,200	2,900	SEG	2020	1,011	3,137	1,151	NC	1125	2,765	845	1,535	NC	494
Clear (Chunilna) Creek	eliminated (see Talkeetna Stock)			2020	1,390	1,205	NS	780	940	1,511				
Crooked Creek	700	1,400	SEG	2002	1,411	1,456	1,747	911	714	1,444	830	594	735	500
Deshka River	eliminated (see Deshka Stock)			2020	16,335	24,316	22,874	11,383	8,544	9,711				
Deshka Stock	9,000	18,000	BEG	2020							10,638	18,674	5,440	3,741
Eastside Susitna Stock	13,000	25,000	SEG	2020							14,995	15,208	7,654	Pending
Goose Creek	eliminated (see Eastside Susitna Stock)			2020	232	NC	NC	148	90	NC				
Kenai River - Early Run (all fish)	eliminated[a]			2017	5,311	6,190	9,177							
Kenai River - Early Run (large fish)	2,800	5,600	SEG	2017										
	3,900	6,600	OEG	2017				6,726	2,910	4,128	2,439	4,045	2,047	1,975
Kenai River - Late Run (all fish)	eliminated[a]			2017	17,451	22,642	18,790							
Kenai River - Late Run (large fish)	13,500	27,000	SEG	2017				20,615	17,289	11,638				
	15,000	30,000	OEG	2020							11,909	12,176	13,952	14,502[e]
Lake Creek	eliminated (see Yetna Stock)			2020	3,506	4,686	3,588	1,601	1,767	2,692				
Lewis River	eliminated			2020	61	5[b]	0	0[b]	0	0[b]				
Little Susitna River (Aerial)[c]	700	1,500	SEG	2020	1,759	1,507	1,622	1,192	530	NC	NC	889	NC	NC
Little Susitna River (weir)	2,100	4,300	SEG	2017				2,531	549[d]	3,666	2,445[d]	3,121	2,288	799[d]
Little Willow Creek	eliminated (see Eastside Susitna Stock)			2020	684	788	675	840	280	631				
Montana Creek	eliminated (see Eastside Susitna Stock)			2020	953	1,416	692	603	473	789				
Peters Creek	eliminated (see Yetna Stock)			2020	1,443	1,514	1,122	307	1674	1,209				
Prairie Creek	eliminated (see Talkeetna Stock)			2020	2,812	3,290	1,853	1,930	1194	2,371				
Sheep Creek	eliminated (see Eastside Susitna Stock)			2020	262	NC	NC	NC	334	NC				
Talachulitna River	eliminated (see Yetna Stock)			2020	2,256	2,582	4,295	1,087	1483	3,225				
Talkeetna Stock	9,000	17,500	SEG	2020							7,283	9,107	4,288	Pending
Theodore River	500	1,000	SEG	2020	312	426	68	21	18	201	111	38	NC	NC
Willow Creek	eliminated (see Eastside Susitna Stock)			2020	1,335	2,046	1,814	1,329	411	897				
Yentna Stock	16,000	22,000	OEG	2020							14,850	18,890	16,583	Pending
Lower Cook Inlet														
Anchor River	3,800	7,600	SEG	2017	2,497	10,241	7,146	5,796	3,162	5,691	3,558	4,300	3,147	23,338
Deep Creek	350		LB SEG	2017	601	535	NS	753	182	751	327	NC	NC	NC
Ninilchik River	750	1,300	SEG	2017	891	874	572	855	979	1,185	833	772	687	330

Note : NA = data not available; NC = no count; LB SEG = lower-bound SEG.

[a] Kenai River king salmon all fish SEG's were eliminated and large fish goals were instituted

[b] Lewis River mouth naturally obstructed.

[c] Little Susitna River king salmon aerial survey goal is only used to assess escapement if weir count is not available.

[d] Incomplete count because weir was pulled before end of run due to flood/fire evacuation, etc

[e] Sonar assessment extended seven days, count August 20 was 13,257 large king salmon

Table 2 – Select Southcentral Region Salmon Escapement Goals and Escapements for sockeye and coho salmon, 2014 to 2023 (preliminary).

System	2023 Goal Range Lower	2023 Goal Range Upper	Type	Initial Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	Preliminary 2023
COHO SALMON														
Kodiak/Alaska Peninsula														
Buskin River	4,700	9,600	BEG	2014	7,345	3,363	2,513	5,559	1,066	5,537	630[a]	7,919	2,526	NC
Olds River	500		LB SEG	2019	1,320	1,357	1,634	10,54	1,000	NS	794	923	1,129	NA
American River	400		LB SEG	2011	1,595	530	500	410	300	NS	279	297	360	NA
Pasagshak River	1,200		LB SEG	2011	4,934	1,790	667	701	1,200	488	2,031	4,721	618	NA
Upper Cook Inlet														
Fish Creek (Knik)	1,200	6,000	SEG	2020	10,283	7,912	2,484[a]	8,966	5,022	3,025	4,555[a]	6,424[a]	NC[a]	1,534
Jim Creek	250	700	SEG	2020	122	571	106	5,646	758	162	735	1,499	1,899	378
Little Susitna River	9,200	17,700	SEG	2020	24,211	12,756	10,049	17,781	7,583	4,229	9,779[b]	10,229[ab]	2,792[ab]	2,949[ab]
Deshka River	10,200	24,100	SEG	2017				36,869	12,962	10,445	5,368[a]	3,431[a]	3,137[a]	1,817[a]
SOCKEYE SALMON														
Bristol Bay														
Kvichak River[c]	2,000,000	10,000,000	SEG	2010	4,458,540	7,341,612	4,462,728	3,163,404	4,398,708	2,371,242	4,030,968	4,703,520	4,224,882	3,751,686
Alagnak River (Tower)[d]	210,000		LB SEG	2018	200,524	5,770,650	NA	2,041,825	1,581,426	820,458	2,386,518	3,236,904	1,668,222	1,099,050
Alagnak River (Aerial)[e]	125,000		LB SEG	2016			696,400	629,200						
Naknek River	800,000	2,000,000	SEG[f]	2015	1,474,428	1,920,954	1,691,910	1,899,972	2,221,152	2,911,470	4,112,160	2,796,534	1,921,296	1,156,206
Egegik River	800,000	2,000,000	SEG	2015	1,382,466	2,160,792	1,837,260	2,600,982	1,608,354	2,340,210	2,389,728	1,832,196	1,786,152	1,562,700
Ugashik River	500,000	1,400,000	SEG	2015	640,158	1,564,638	1,635,270	1,186,446	1,167,792	1,547,748	1,745,940	2,859,930	1,436,784	1,128,896
Wood River	700,000	1,800,000	SEG	2015	2,764,614	1,941,474	1,309,707	4,274,224	7,507,254	2,073,276	2,243,886	4,410,156	3,747,612	2,648,616
Igushik River	150,000	400,000	SEG	2015	340,590	651,172	469,230	578,700	1,581,426	256,074	323,814	878,952	378,768	542,496
Nushagak River	370,000	900,000	SEG	2015	618,477	796,684	680,513	2,852,308	1,164,701	709,349	1,228,059	4,697,299	3,455,272	1,914,555
Kodiak/Alaska Peninsula														
Buskin River	5,000	8,000	SEG	2011	13,976	8,719	11,584	7,214	4,281	12,297	7,739	2,230	8,117	1,755
Afognak River	20,000	50,000	BEG	2005	36,345	38,151	33,167	22,151	17,601	26,817	24,284	31,997	29,509	35,559
Saltery River	15,000	35,000	BEG	2011	29,047	42,468	57,867	39,315	22,845	22,183	24,987	64,602	25,615	47,936
Pasagshak River	3,000		LB SEG	2011	1,582	2,077	7,053	11,021	2,019	4,537	3,522	8,551	4,377	4,345
Karluk River Early Run	150,000	250,000	BEG	2014	252,097	260,097	164,760	242,599	205,054	186,510	157,441	128,373	175,336	182,172
Ayakulik River Early Run	140,000	280,000	SEG	2011	210,040	218,178	182,589	204,497	266,333	279,639	220,935	265,756	251,690	200,143
Fraser River	75,000	170,000	BEG	2008	200,296	219,093	122,585	129,227	201,161	169,627	137,570	186,632	118,509	100,477
Upper Cook Inlet														
Fish Creek (Knik)	15,000	45,000	SEG	2017	43,915	102,309	46,202	63,882	72,157	76,264	64,408	99,324[a]	58,333[a]	44,960
Kasilof River	140,000	370,000	OEG	2020	439,977	470,679	239,981	358,724	394,309	378,416	545,654	521,859	971,604	932,896
	140,000	320,000	BEG	2020										
Kenai River[g]	OEG eliminated			2017	1,218,342	1,400,047	1,119,988							
	750,000	1,300,000	SEG	2017				1,071,064	886,761	1,457,031	1,505,940	2,148,955	1,263,170	2,046,439
	varies based on tier		Inriver					1,308,498	1,035,761	1,849,054	1,714,565	2,441,825	1,567,750	2,351,020
Russian River - Early Run	22,000	42,000	BEG	2011	44,920	50,226	38,739	37,123	44,110	125,942	27,103	46,976	61,098	66,818
Russian River - Late Run	44,000	85,000	SEG	2020	52,277	46,223	37,837	45,012	71,052	64,585[a]	78,832	123,950	124,561	160,430
Chelatna Lake	20,000	45,000	SEG	2017	26,212	69,750	60,792	26,986	20,438	26,303[h]	NC	NC	NC	NC
Judd Lake	15,000	40,000	SEG	2017	22,416	47,684	NA	35,731	30,844	44,145	31,220	49,250	38,442	NC
Larson Lake	15,000	35,000	SEG	2017	12,040	23,214	14,333	31,866	23,444	9,699	12,018	21,987	17,436	38,069
Lower Cook Inlet														
English Bay	6,000	13,500	SEG	2002	7,832	6,290	7,673	20,751	18,083	24,044	31,486	6,328	11,425	23,661
Delight Lake	5,100	10,600	SEG	2017	22,289	3,220	5,110	5,380	13,428	17,410	12,299	7,525	22,717	6,901
Desire Lake	4,800	11,900	SEG	2017	11,480	2,830	6,740	9,450	9,840	9,040	2,260	3,323	20,460	14,700
Bear Lake	700	8,300	SEG	2002	9,090	9,560	9,011	9,207	10,568	9,185	8,212	11,318	9,962	7,975

Note: NA = data not available; NC = no count; LB SEG = lower-bound SEG.

[a] Incomplete count because weir was pulled before end of run due to flood/fire evacuation, etc

[b] Preliminary escapement estimate uses weir count minus five year average harvest above the weir.

[c] Prior to 2010 Kvichak River had a pre-peak/peak-cycle escapement goal of 6-10 million sockeye and an off-peak escapement goal of 2-10 million fish.

[d] 2009 to 2015 Alagnak River sockeye salmon escapements for Alagnak River (Tower) escapement goal are expanded aerial surveys.

[e] Alagnek River sockeye salmon aerial survey-based escapement goal will be used in years that the Alagnak River tower is not operated.

[f] Naknek River has an OEG of 800,000-2,000,000 sockeye salmon when the Naknek River Special Harvest Area is open to fishing.

[g] Kenai River sockeye salmon uses the best estimate of sport harvest upstream of sonar.

[h] Weir not operational

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Advisory Announcement

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2023 Upper Cook Inlet Commercial Salmon Fishery Season Summary

The following is an overview of the 2023 Upper Cook Inlet (UCI) commercial salmon season. All data are preliminary. The 2023 Upper Cook Inlet sockeye salmon total run of 6.5 million fish was 27% greater than the preseason forecast of 5.1 million fish (Table 1). The commercial salmon fishery harvest of 1.9 million salmon was 41% less than the recent 20-year average annual harvest of 3.1 million fish (Table 2). This is likely influenced by the closure of the East Side Set Net (ESSN) fishery for the entire season. The 2023 exvessel value of all salmon species was $14.4 million and was 38% less than the previous 20-year average annual exvessel value of $23.2 million (Table 3). Of the five species of Pacific salmon harvested in UCI, sockeye salmon accounted for 92% of the total exvessel value over the past 20 years (Table 3). The 2023 king salmon harvest of 732 fish and the coho salmon harvest of 83,912 fish are the lowest on record for each species respectively. Overall participation in UCI was less than in previous years with 488 permits making deliveries, which is 47% less than the 20-year average of 916 permits.

Escapement goals were met or exceeded in the five UCI sockeye salmon escapements monitored by the department in 2023. Fish Creek was within the sustainable escapement goal (SEG). Two systems exceeded their respective escapement goals: Larson Lake and Kasilof River. The Kenai River late-run sockeye salmon exceeded the inriver goal. The Packers Creek (Kalgin Island) escapement estimate is not available at the time of this publication. The Judd Lake weir was not operated in 2023 due to staffing issues and the Chelatna Lake weir has not been operated since 2020 due to loss of funding.

In 2023, neither the Kenai River early-run nor the late-run large king salmon optimal escapement goals (OEG) were achieved. Of the three southern Kenai Peninsula king salmon systems, the SEG was not achieved at two systems (Anchor River and Ninilchik River wild run), and the Deep Creek king salmon run was not assessed due to lack of funding. In the Northern Cook Inlet region, the Little Susitna River king salmon SEG was not achieved, and the Deshka River king salmon biological escapement goal (BEG) was not achieved. The SEG on the Chuitna River in the West Cook Inlet area was not achieved. King salmon escapements for the Susitna River Drainage are currently undergoing post-season analysis but preliminary results from aerial surveys indicate low abundance of king salmon.

In 2023, UCI coho salmon weir counts on the Deshka and Little Susitna Rivers were considered incomplete due to flooding; however, it is likely the SEG's for these systems were not achieved. The SEGs for Jim and Fish creeks were achieved. The chum salmon SEG for Clear Creek in Chinitna Bay was achieved.

SOCKEYE SALMON

2023 Run and Fishery Summary

The 2023 UCI preseason total run forecast of 5.1 million sockeye salmon, comprised a harvest estimate (sport, personal use, and commercial) of 3.1 million fish. (Table 1). The 2023 preliminary total run estimate, which includes estimates of harvest as well as escapement, of 6.5 million sockeye salmon was 1.4 million fish or 27% above the preseason forecast (Table 1). The total run of sockeye salmon to the Kenai River was greater than forecasted by 1.0 million fish and the Kasilof River exceeded the forecast by 267,000 fish. The total run of sockeye salmon to Fish Creek was 6,000 fish less than forecasted. The Susitna River sockeye salmon total run estimate was 47,000 less fish than forecasted (Table 1). For all other systems combined (minor systems) total run was 153,000 fish greater than forecasted (Table 1).

The final passage estimated at the river mile 19 sonar of 2,343,976 sockeye salmon exceeded the Kenai River sockeye salmon middle tier inriver goal range (1,100,000–1,400,000 fish) (Table 4). The peak day of sockeye salmon passage in the Kenai River occurred on July 26 with an estimate of 195,029 fish. During the previous 20 years, the average date when 50% of the sonar passage occurred in the Kenai River was July 27. In 2023, the midpoint of total sockeye passage occurred on July 29, which is two days later than the previous 20-year average (2003–2022). Approximately 45% of the sockeye salmon run passed the sonar site during the month of August, which is above the recent 20-year average (2003–2022) of 41% of the run passing the sonar site in August.

The Kasilof River sockeye salmon sonar count of 933,145 fish exceeded the Kasilof River BEG of 140,000–320,000 fish and the OEG of 140,000–370,000 fish. The passage midpoint for Kasilof River sockeye salmon occurred on July 22, which was five days later than the 20-year average (2003–2022) midpoint of July 17. Peak daily Kasilof River sockeye salmon passage of 59,742 fish occurred on July 16.

The 2023 total UCI commercial harvest of 1.6 million sockeye salmon was 40% below the 2003–2022 average annual harvest of 2.6 million fish. Prices varied during the season but, based on an estimated average price of $1.57 per pound, the total exvessel value for sockeye salmon harvested was $13.7 million, or 95% of the total 2023 exvessel value of all salmon in UCI (Table 3).

East Side Set Net Fishery

The ESSN fishery did not open for the 2023 season due to a poor forecast of Kenai River late-run large king salmon, the department issued emergency order (EO) No. 2-KS-1-11-23 closing the king salmon sport fishery in the Kenai River beginning July 1, 2023. Consistent with paired restrictions of the *Kenai River Late-Run King Salmon Management Plan* (KRLKSMP; 5 AAC 21.359), EO 2S-01-23 was issued for the ESSN fishery on March 9, which closed the ESSN fishery prior to the start of the season and remained closed through the end of the season on August 15. The closure includes the Kenai, Kasilof, and East Forelands Sections of the Upper Subdistrict along with the Kasilof Special Harvest Area (Figure 1 and 2).

There was no commercial salmon harvest in the ESSN commercial fishery as it was closed for the 2023 season due to low abundance of Kenai River king salmon and provisions in the KRLKSMP.

Drift Gillnet Fishery

The drift gillnet fishery management fell into the provisions of the middle run size tier for sockeye salmon (2.3–4.6 million fish) but unlike the ESSN fishery, this fishery was not significantly impacted by the KRLKSMP. The drift gillnet fishery opened on June 19 for the 2023 season. The fishery was open districtwide except Chinitna Bay for regulatory Monday and Thursday fishing periods from the beginning of the season through July 8. Additional fishing opportunities were provided in the Kasilof Section (Figure 3) on June 24, June 26, and June 28. Additional fishing opportunities were provided district wide except Chinitna Bay on July 1, July 5, and July 8.

From July 10 through July 15, both regular fishing periods were open to Drift Gillnet Area 1 and the Expanded Kenai and Expanded Kasilof (Ex. Ken/Kas) sections (Figures 3 and 4). Additional fishing time was opened on July 12 in the Expanded Kasilof Section.

From July 16 through July 31, fishing during the first regular period of each week was limited to Drift Gillnet Area 1 and the Ex. Ken/Kas sections. The second regular period of each week was restricted to the Ex. Ken/Kas, and the Anchor Point sections. Additional fishing periods were allowed in the Ex. Ken/Kas sections and the Anchor Point Section on July 18, July 19, July 29, and July 30.

Monday and Thursday regulatory periods between August 1 and August 15 included Area 1, the Ex. Ken/Kas sections, and the Anchor Point Section. Additional fishing periods were allowed in the Ex. Ken/Kas sections and the Anchor Point Section on August 1 and August 2. On August 11, the Chinitna Bay Subdistrict was opened for drift gillnet fishing on Tuesdays and Fridays.

From August 15 through the remainder of the season, all drift gillnet commercial fisheries in UCI followed the regulatory periods of Monday and Thursday in Areas 3 and 4 only (Figure 5) along with openings in Chinitna Bay Subdistrict (Figure 1). All UCI commercial drift gillnet fisheries were closed by EO on September 14 for the 2023 season.

From June 19 through August 14, the drift gillnet fleet fished a total of 29 days as follows: 3 days in the Expanded Kasilof Section only, 8 days in the Ex. Ken/Kas and Anchor Point sections only, 9 days in Drift Gillnet Area 1 with some or all the expanded sections, and 9 days district wide. Beginning August 15, all Monday/Thursday regulatory drift gillnet fishing periods were restricted to Drift Gillnet Areas 3 and 4. The total UCI drift gillnet harvest of 1,366,534 sockeye salmon was below the 20-year average harvest of 1,420,938 fish. In 2023, 356 drift gillnet permits made deliveries for a season average harvest of approximately 3,839 sockeye salmon per permit. Participation was below the 20-year average of 432 drift gillnet permits (Table 5 and 6).

Western and Chinitna Bay Subdistricts Fisheries

The Western Subdistrict (Figure 1) set gillnet fishery opened for regulatory fishing periods on Monday, June 19. This fishery primarily harvests sockeye salmon returning to the Crescent River. When Crescent River sockeye salmon run indexes warrant additional harvest, an EO would be issued for an extra day in that portion of the Western Subdistrict south of the latitude of Redoubt Point. In 2023, catch per unit effort in the Western Subdistrict warranted additional hours to regular periods from July 15 through August 10. The Chinitna Bay subdistrict harvest is confidential due to the number of participants and processors. Approximately 47,402 sockeye salmon were harvested by set gillnetters in the Western and Chinitna Bay subdistricts. This was 14% above the average annual harvest of 41,661 fish during the most recent 20 years. Participation was near the 20-year average with 20 set gillnet permits making deliveries (Table 5 and 6).

Kustatan Subdistrict Fishery

The Kustatan Subdistrict includes those waters from the Drift River oil terminal to the Northern District boundary near the West Foreland (Figure 1). A portion of the Kustatan Subdistrict was open from June 2–23, allowing harvest for the Big River sockeye salmon fishery, which is an early season fishery limited to one net per permit holder and open 3 days per week. By regulation, the remaining Kustatan Subdistrict opened June 26. Approximately 23,037 sockeye salmon were harvested in the Kustatan Subdistrict in 2023, of which 4,973 sockeye salmon were harvested during the Big River fishery from June 1 through June 24. The 2023 sockeye salmon harvest for the Kustatan Subdistrict was substantially above the recent 20-year average harvest of 4,086 fish. Participation was near the 20-year average with 13 set gillnet permits making deliveries (Table 5 and 6).

Kalgin Island Subdistrict Fishery

The Kalgin Island Subdistrict (Figure 1) opened for regulatory Monday and Thursday fishing periods beginning June 26, 2023, except for the west side of Kalgin Island which was open for commercial fishing on Mondays, Wednesdays, and Fridays from June 2 through June 23 as part of the Big River sockeye salmon fishery. In 2023, 77,872 sockeye salmon were harvested from the Kalgin Island Subdistrict, with 18,107 of those fish taken during the Big River sockeye salmon fishery. The 2023 Kalgin Island subdistrict harvest is substantially above the recent 20-year average harvest 54,141 fish. Participation was near the 20-year average with 25 set gillnet permits making deliveries (Table 5 and 6).

Review of the Packers Creek video weir data is ongoing at the time of this publication. It is highly likely the SEG (15,000 – 30,000). was achieved or exceeded based on video recordings reviewed so far.

Northern District Fishery

The Northern District opened for sockeye salmon on June 26, immediately after the directed king salmon fishery, and closed on September 14. Commercial fishing periods were reduced from 12 hours to 8 hours on June 26 and July 3. From July 6 through July 17, commercial periods were open under the regulatory 7:00 am to 7:00 pm on Monday and Thursday periods. From July 20 through August 3, net restrictions were implemented during regulatory periods. In response to weak coho salmon abundance indicators, commercial periods were reduced to 8-hours on August 10 and August 14 in the General Subdistrict of the Northern District. Subsequent commercial periods were closed by emergency order until the UCI fishing season closed on September 14. In 2023, a total of 61,911 sockeye salmon were harvested in the Northern District. This harvest was 52% above the recent 20-year average harvest of 40,767 sockeye salmon. Participation was near the 20-year average with 74 set gillnet permits making deliveries (Table 5 and 6).

COHO SALMON

2023 Run and Fishery Summary

The 2023, the commercial harvest estimate of 83,912 coho salmon in UCI was 53% below the recent 20-year average of 178,919 fish (Table 2). The 2023 drift gillnet harvest of 49,801 coho salmon was 52% below the recent 20-year average of 102,703 fish (Table 5). The Northern District

set gillnet fishery harvested 23,525 coho salmon, which was 38% below the recent 20-year average of 37,924 fish.

Based on an average price per pound of $0.58, the estimated exvessel value of the 2023 commercial coho salmon fishery was $253,751 or 2% of the total exvessel value of all species in Upper Cook Inlet (Table 3). This was 66% below the recent 20-year average exvessel value of $739,677 for coho salmon in UCI.

In UCI, there are four coho salmon systems with escapement goals. Fish Creek, the Little Susitna, and Deshka Rivers have weirs, while McRoberts Creek was assessed with foot surveys.

The Little Susitna weir was inundated by flood waters near the end of the coho season. Projected escapement was well below the SEG range when the weir was removed prior to a large rain event on August 26. Even though the season count towards escapement is incomplete, the SEG of 9,200–17,700 likely would not have been achieved. The weir count of 3,726 fish is considered an incomplete and minimum count.

Due to flood waters, the Deshka weir was removed on August 30. Through August 25, 1,817 coho salmon were counted which is considered an incomplete and minimum count. Projections of escapement through August 25 indicated the SEG of 10,200–24,100 fish would not have been achieved.

The weir at Fish Creek was removed on September 13. The coho salmon SEG of 1,200–4,400 fish was achieved with a final escapement count of 1,534 fish. The SEG for Jim Creek of 250–700 coho salmon is assessed post season by a foot survey of McRoberts Creek, a small spawning tributary within the Jim Creek system. The survey counted 378 coho salmon which achieved the SEG.

KING SALMON

2023 Run and Fishery Summary

The 2023 UCI commercial king salmon harvest of 732 fish was 93% below the recent 20-year average of 10,443 fish (Table 2). In UCI, there are two commercial fisheries where most king salmon are harvested. These include the set gillnet fisheries in the Northern District, and the ESSN fishery of the Central District. The king salmon harvests of the Northern District were managed under the *Northern District King Salmon Management Plan* (NDKSMP; 5 AAC 21.366), and king salmon harvest of the ESSN fishery was guided by the KRLKSMP. king salmon runs were expected to be below average across Southcentral Alaska for the 2023 season. As predicted, the 2023 king salmon runs across UCI were below average, leading to both preseason and inseason conservation-based management actions and closures in multiple river systems. Using the average price of $3.87 per pound for king salmon, the estimated exvessel value of the 2023 harvest was $40,434, or >1% of the total exvessel value of all salmon in UCI (Table 3).

In the Central District of UCI there are four monitored king salmon systems with escapement goals. The Kenai River is monitored with sonar, the Anchor River is monitored with a combination of sonar and weirs, and the Ninilchik River and Crooked Creek are monitored with weirs.

The total Kenai River large late-run king salmon passage through August 27, 2023, at the river mile 14 sonar was 13,922 large king salmon. ADF&G applies harvest and catch-and-release mortality estimates and spawning downstream of the sonar estimates to generate a preliminary spawning escapement estimate of 14,502 large fish. The midpoint of the run occurred on July 28

which is one day later than the mean historical midpoint. The OEG of 15,000 – 30,000 large fish was not achieved and the SEG of 13,500 – 27,000 large fish was achieved in 2023. The SEG has been achieved in four of the last seven years. The lower bound of the OEG has not been achieved since establishment in 2020.

The SEG (700–1,400) for wild run king salmon in Crooked Creek was not achieved in 2023 with a final weir count of 500 fish.

Of the three southern Kenai Peninsula king salmon systems, the SEG was not achieved at two systems and not assessed in the third. The Anchor River preliminary escapement estimate was 2,338 fish (SEG 3,800–7,600) and Ninilchik River wild run count was 330 fish (SEG 750–1,300). The Deep Creek king salmon run was not assessed due to lack of funding.

The Northern District of UCI there are two systems with escapement goals monitored for king salmon inseason using weirs and multiple streams from the westside of Cook Inlet and the Susitna River Drainage are evaluated by aerial surveys.

The final escapement estimate of king salmon in the Deshka River was 3,741 fish, which did not achieve the BEG of 9,000–18,000 fish The Little Susitna River king salmon SEG of 2,100–4,300 was not achieved in 2023 with the final weir count of 796 king salmon. Aerial goals of the various other Susitna drainage king salmon systems pending analysis to determine whether goals have been achieved.

Northern District King Salmon Fishery

Northern District king salmon are primarily harvested during the directed fishery in late May and June. The 2023 preseason run forecast for Deshka River king salmon of 7,243 fish, suggested harvest must be limited to achieve the BEG. The department issued preseason restrictions that closed Units 1–6, excluding the Yentna River drainage, to king salmon sport fishing. Due to the low forecasted abundance of king salmon and closure of the Deshka River king salmon sport fishery, the commercial fishery was closed, per provisions in the NDKSMP. The commercial fishery remained closed through the end of the directed king salmon fishing season on June 24. King salmon conservation measures were further implemented through July 3 by reducing commercial fishing time and closure of periods in the general commercial salmon season.

The 2023 total commercial king salmon harvest was 263 fish and 87% below the previous 20-year average harvest of 2,007 fish.

ESSN King Salmon Fishery

The 2023 preseason forecast was for a total run of 13,630 large Kenai River late-run king salmon. Based on low preseason forecast, the 2023 late-run king salmon sport fishery was closed preseason and remained closed for the 2023 season. Subsequently, the ESSN commercial fishery did not open and remained closed through the end of the season on August 15, as per the KRLKSMP noted above.

PINK SALMON

Pink salmon runs in UCI are even-year dominant, with odd-year average harvests typically less than even-year harvests. The 2023 UCI commercial pink salmon harvest was 66,236 fish (Table 2), which was 20% below the average annual harvest of 82,486 fish from the most recent 20 years

of odd-year harvest (Table 5 and 6). Using an average price of $0.20 per pound, the exvessel value for the 2023 pink salmon harvest was $46,846 or >1% of the total exvessel value of salmon in UCI (Table 3).

CHUM SALMON

The 2023 harvest of 127,150 chum salmon was 2% below the recent 20-year average annualharvest of 129,201 fish (Table 5 and 6). Using the average price of $0.49 per pound the exvessel value of the 2023 UCI commercial chum salmon harvest was $412,463 or 2.9% of the total exvessel value of all salmon in UCI (Table 3). An aerial survey of Chinitna River/Clearwater Creek produced an estimate of 6,350 chum salmon within these streams, which was within the SEG range of 3,500–8,000 fish.

Table 1.–Upper Cook Inlet sockeye salmon forecast and preliminary total run, by river system, 2023.

System	Forecast	Actual	% Difference
Kenai River	2,821,000	3,822,000	35%
Kasilof River	1,126,000	1,393,000	24%
Susitna River	340,000	293,000	-14%
Fish Creek	90,000	84,000	-7%
Minor Systems	743,000	896,000	21%
Overall Total	5,120,000	6,488,000	27%

Table 2.–Upper Cook Inlet commercial salmon harvest by species, 2003–2023.

Year	King	Sockeye	Coho	Pink	Chum	Total
2003	18,503	3,476,161	101,756	48,789	120,767	3,765,976
2004	26,922	4,927,084	311,058	357,939	146,165	5,769,168
2005	27,667	5,238,699	224,657	48,419	69,740	5,609,182
2006	18,029	2,192,730	177,853	404,111	64,033	2,856,756
2007	17,625	3,316,779	177,339	147,020	77,240	3,736,003
2008	13,333	2,380,135	171,869	169,368	50,315	2,785,020
2009	8,750	2,045,794	153,210	214,321	82,808	2,504,883
2010	9,900	2,828,342	207,350	292,706	228,863	3,567,161
2011	11,248	5,277,995	95,291	34,123	129,407	5,548,064
2012	2,527	3,133,839	106,775	469,598	269,733	3,982,472
2013	5,398	2,683,224	260,963	48,275	139,365	3,137,225
2014	4,660	2,344,034	137,419	642,986	116,127	3,245,226
2015	10,798	2,649,667	216,032	48,004	275,960	3,200,461
2016	10,027	2,396,943	147,495	382,468	123,679	3,060,612
2017	7,660	1,849,243	303,642	167,842	243,600	2,571,987
2018	3,405	817,879	232,290	126,923	115,366	1,295,863
2019	3,149	1,720,559	163,863	70,827	129,176	2,087,574
2020	3,008	695,754	139,240	345,072	29,217	1,212,291
2021	3,973	1,410,854	147,607	81,360	70,243	1,714,037
2022	2,278	1,126,280	102,666	100,964	99,494	1,431,682
2023[a]	732	1,576,756	83,912	66,236	127,150	1,854,786
2003-2022 Avg	10,443	2,625,600	178,919	210,056	129,065	3,154,082
2013-2022 Avg	5,436	1,769,444	185,122	201,472	134,223	2,295,696

[a] 2023 data are preliminary

Table 3.– Approximate exvessel value and percentage of Upper Cook Inlet commercial salmon harvest by species, 2003–2023.

Year	King	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
2003	$ 358,886	2.8%	$ 12,275,919	95.3%	$ 132,059	1.0%	$ 8,663	0.1%	$ 99,783	0.8%	$ 12,875,310
2004	$ 673,088	3.3%	$ 19,416,259	93.8%	$ 416,071	2.0%	$ 65,884	0.3%	$ 129,791	0.6%	$ 20,701,093
2005	$ 688,993	2.2%	$ 30,165,827	95.2%	$ 708,620	2.2%	$ 12,796	0.0%	$ 101,106	0.3%	$ 31,677,341
2006	$ 617,278	4.4%	$ 12,311,850	88.5%	$ 679,463	4.9%	$ 174,522	1.3%	$ 121,265	0.9%	$ 13,904,377
2007	$ 629,643	2.7%	$ 21,916,852	93.6%	$ 682,747	2.9%	$ 53,029	0.2%	$ 141,097	0.6%	$ 23,423,367
2008	$ 544,042	3.3%	$ 15,530,144	93.0%	$ 482,298	2.9%	$ 64,466	0.4%	$ 75,766	0.5%	$ 16,696,717
2009	$ 266,548	1.8%	$ 13,720,051	94.1%	$ 399,704	2.7%	$ 71,582	0.5%	$ 115,969	0.8%	$ 14,573,854
2010	$ 359,184	1.1%	$ 30,556,535	92.1%	$ 1,090,191	3.3%	$ 311,199	0.9%	$ 851,004	2.6%	$ 33,168,113
2011	$ 634,836	1.2%	$ 51,363,720	96.7%	$ 406,726	0.8%	$ 27,548	0.1%	$ 688,878	1.3%	$ 53,121,708
2012	$ 121,626	0.3%	$ 32,008,304	91.6%	$ 480,119	1.4%	$ 622,809	1.8%	$ 1,723,098	4.9%	$ 34,955,955
2013	$ 210,638	0.5%	$ 37,787,069	93.9%	$ 1,362,395	3.4%	$ 53,754	0.1%	$ 828,113	2.1%	$ 40,241,970
2014	$ 206,119	0.6%	$ 32,819,090	93.6%	$ 778,672	2.2%	$ 588,409	1.7%	$ 687,214	2.0%	$ 35,079,504
2015	$ 359,903	1.5%	$ 22,285,338	92.2%	$ 753,078	3.1%	$ 39,197	0.2%	$ 726,696	3.0%	$ 24,164,211
2016	$ 491,323	2.2%	$ 20,853,404	92.3%	$ 557,531	2.5%	$ 328,922	1.5%	$ 351,248	1.6%	$ 22,582,429
2017	$ 634,666	2.7%	$ 19,711,471	82.7%	$ 2,168,036	9.1%	$ 89,448	0.4%	$ 1,234,825	5.2%	$ 23,838,446
2018	$ 207,901	1.7%	$ 10,139,195	81.8%	$ 1,367,047	11.0%	$ 115,431	0.9%	$ 569,659	4.6%	$ 12,399,234
2019	$ 172,899	0.9%	$ 17,131,030	93.3%	$ 684,442	3.7%	$ 45,667	0.2%	$ 321,909	1.8%	$ 18,355,947
2020	$ 69,730	1.4%	$ 4,008,623	79.1%	$ 591,193	11.7%	$ 300,689	5.9%	$ 96,539	1.9%	$ 5,066,774
2021	$ 124,439	0.9%	$ 12,665,469	91.3%	$ 684,272	4.9%	$ 63,900	0.5%	$ 327,161	2.4%	$ 13,865,241
2022	$ 93,634	0.7%	$ 12,064,999	92.1%	$ 368,873	2.8%	$ 110,691	0.8%	$ 461,507	3.5%	$ 13,099,704
2023	$ 40,434	0.3%	$ 13,655,095	94.8%	$ 253,751	1.8%	$ 46,846	0.3%	$ 412,463	2.9%	$ 14,408,588
2003-2022 Average	$ 373,269	1.6%	$ 21,436,557	92.4%	$ 739,677	3.2%	$ 157,430	0.7%	$ 482,631	2.1%	$ 23,189,565

*Note - 2023 data is preliminary

Table 4.–Upper Cook Inlet sockeye salmon goals and passage (or counts), 2023.

System	2023 Estimate	Goal type	Lower bound	Upper bound
Kenai River	2,343,976	IRG	1,100,000	1,400,000
		SEG	750,000	1,300,000
Kasilof River	933,145	BEG	140,000	320,000
		OEG	140,000	370,000
Larson Lake	38,069	SEG	15,000	35,000
Judd Lake	ND	SEG	15,000	40,000
Fish Creek	44,764	SEG	15,000	45,000
Packers Creek	TBD	SEG	15,000	30,000

*Note: BEG= Biological Escapement Goal, SEG=Sustainable Escapement Goal, OEG=Optimum Escapement Goal, and IRG = Inriver Goal, ND = No Data, TBD = To Be Determined

Table 5. –Preliminary Upper Cook Inlet commercial salmon harvest by district and species, 2023.

Gear	District	Subdistrict	Permits[a]	King	Sockeye	Coho	Pink	Chum	Total
Drift	Central		356	108	1,366,534	49,801	57,907	113,523	1,587,873
Setnet	Central	Upper	0	0	0	0	0	0	0
		Kalgin Island	25	245	77,872	4,548	830	2,059	85,554
		Western & Chinitna Bay	20	21	47,402	2,312	160	4,533	54,428
		Kustatan	13	95	23,037	3,726	138	132	27,128
Total Central District Set Harvest			58	361	148,311	10,586	1,128	6,724	167,110
Setnet	Northern	Eastern	36	41	26,990	6,614	4,863	1,375	39,883
		General	38	222	34,921	16,911	2,344	5,528	59,926
Total Northern District Set Harvest			74	263	61,911	23,525	7,207	6,903	99,809
Total UCI Harvest			488	732	1,576,756	83,912	66,242	127,150	1,854,792

[a] Permit totals may be less than the sum of individual stat areas if the same permit was fished in multiple stat areas.

Table 6. Upper Cook Inlet commercial salmon harvest by district and species, 20-year average (2003–2022).

Gear	District	Subdistrict	Permits[a]	King	Sockeye	Coho	Pink[b]	Chum	Total
Drift	Central		432	720	1,420,938	102,703	41,685	120,094	1,686,139
Setnet	Central	Upper	347	7,031	1,063,996	13,691	29,143	819	1,150,130
		Kalgin Island	26	367	54,141	15,864	2,076	1,589	75,522
		Western & Chinitna Bay	23	171	41,661	7,083	1,633	3,043	53,142
		Kustatan	11	146	4,086	1,455	186	16	5,785
Total Central District Set Harvest			408	7,715	1,163,893	38,378	33,049	5,848	1,248,883
Setnet	Northern	Eastern	30	364	20,632	13,951	2,621	390	37,957
		General	47	1,644	20,136	23,973	5,132	2,870	53,754
Total Northern District Set Harvest			77	2,007	40,767	37,924	7,753	3,259	91,711
Total UCI Harvest			916	10,443	2,625,598	179,004	82,486	129,201	3,026,733

[a] Permit totals may be less than the sum of individual stat areas if the same permit was fished in multiple stat areas.
[b] Pink salmon 20-year average is for odd years only.

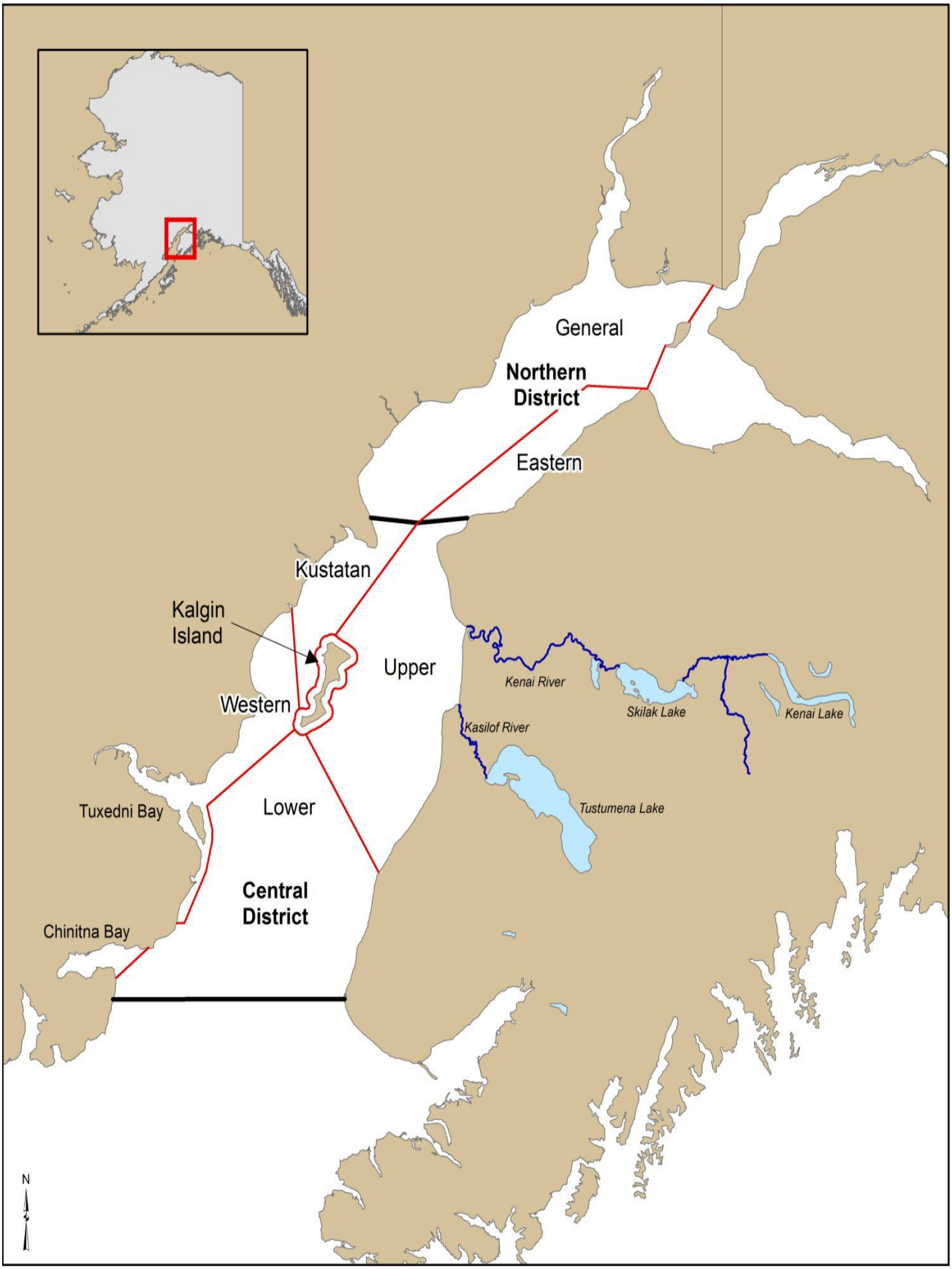

Figure 1.–Upper Cook Inlet commercial fisheries district and subdistrict fishing boundaries.

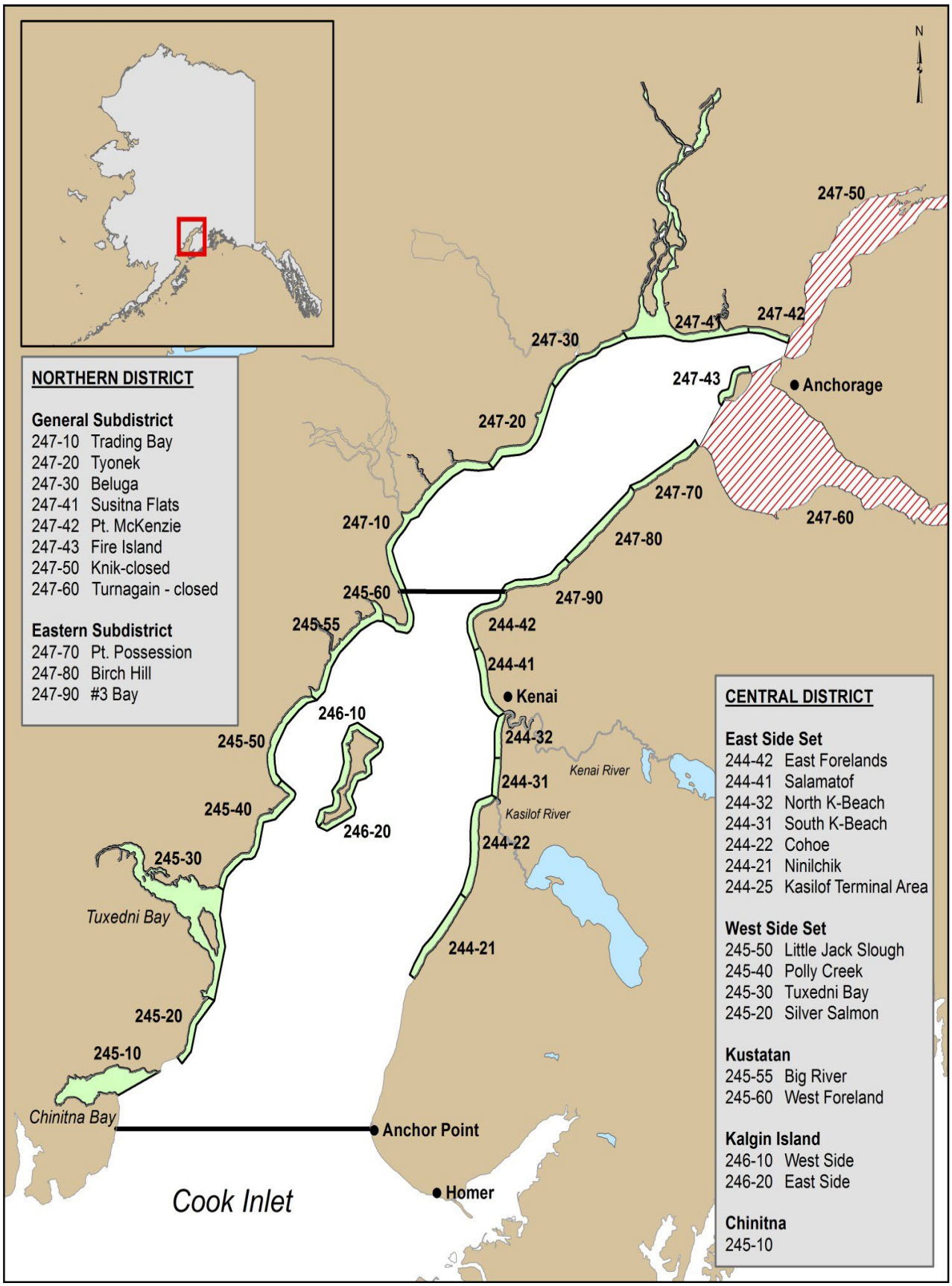

Figure 2.–Upper Cook Inlet commercial set gillnet statistical areas.

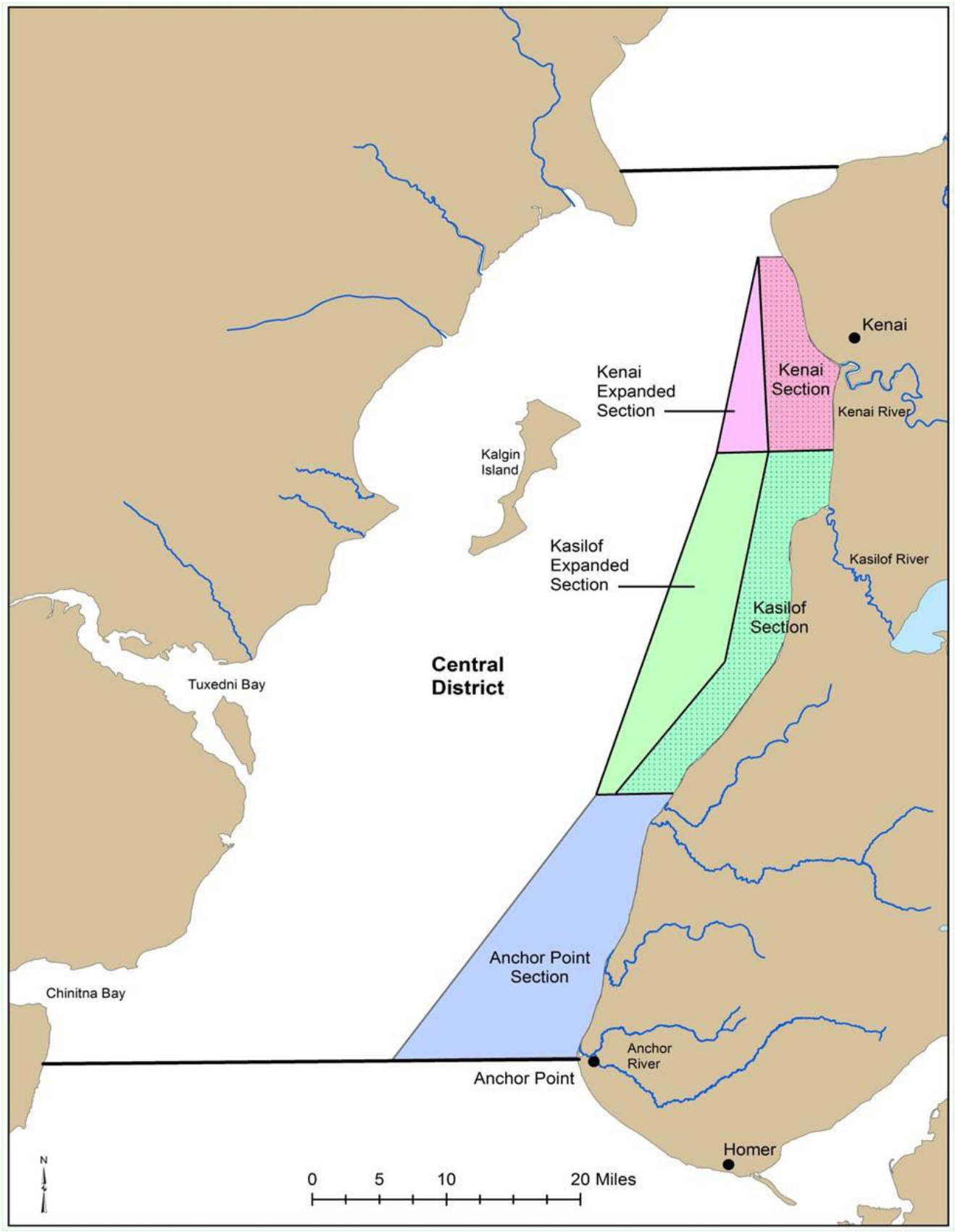

Figure 3.–Map of drift gillnet "corridor" boundaries, including the Kenai and Kasilof sections, Expanded Kenai and Expanded Kasilof sections, and the Anchor Point Section.

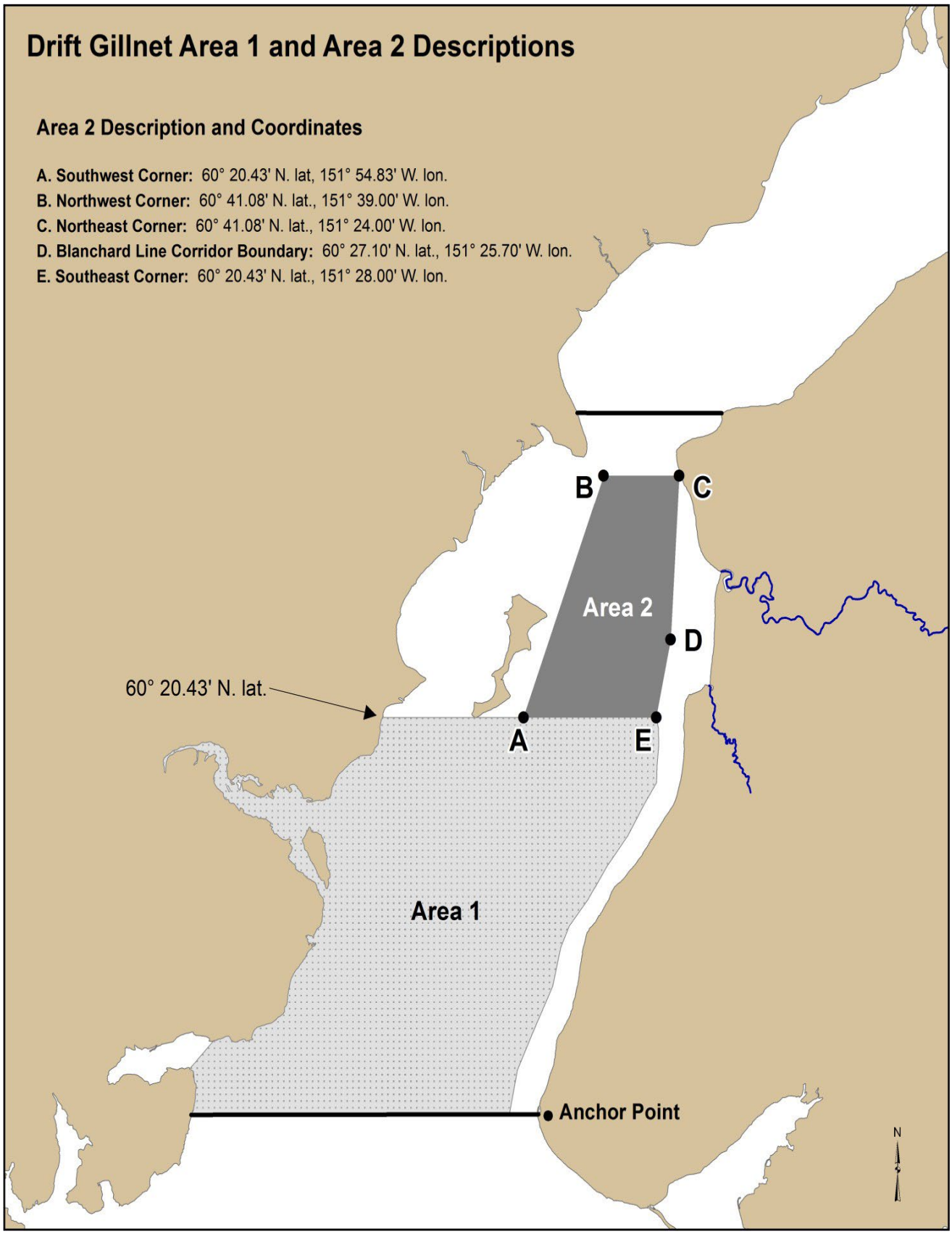

Figure 4.–Fishing boundaries for Drift Gillnet Areas 1 and 2.

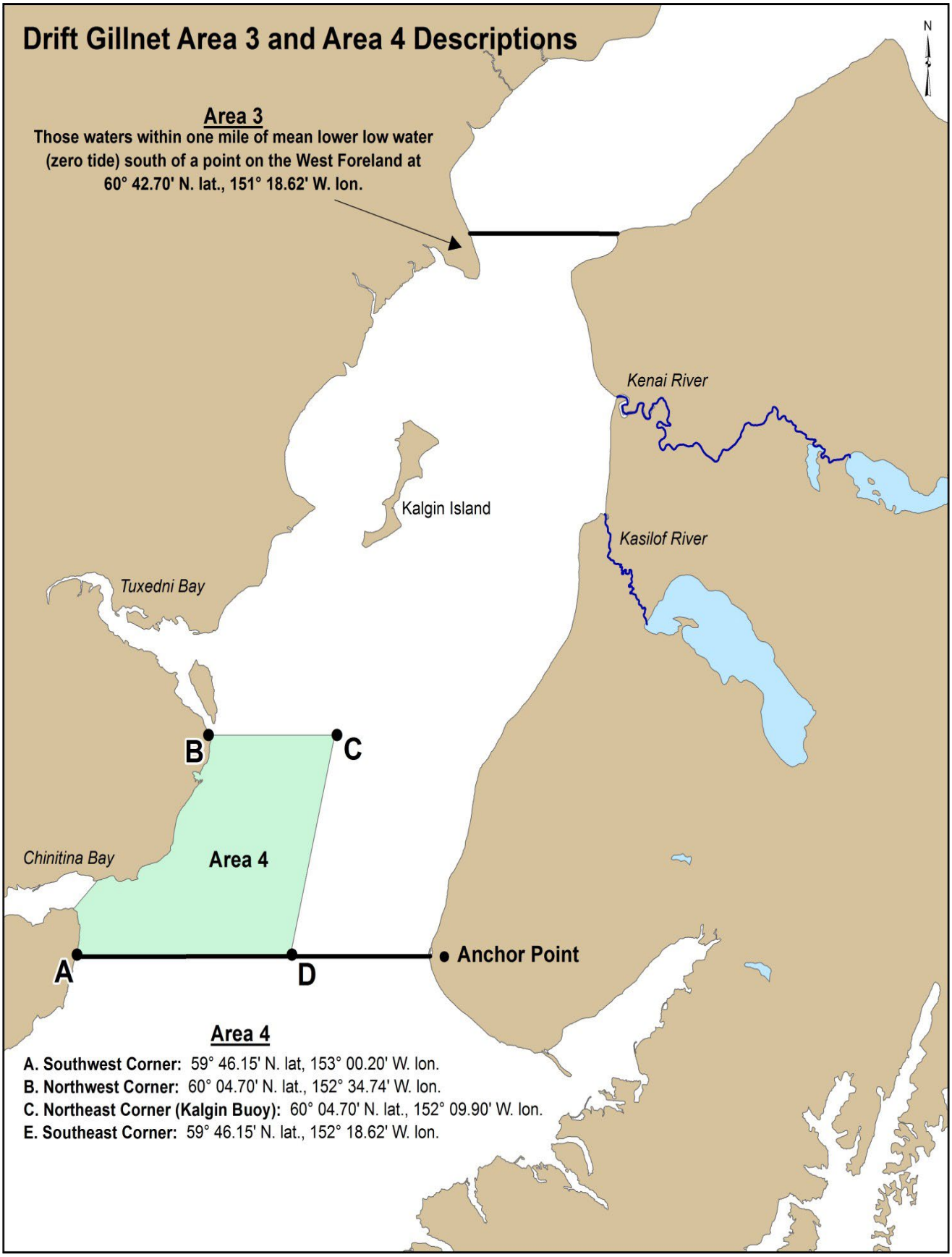

Figure 5.–Map of Drift Gillnet Areas 3 and 4.

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Advisory Announcement

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2023 Lower Cook Inlet Commercial Salmon Fishery Season Summary

The 2023 Lower Cook Inlet Area commercial salmon harvest was 3.1 million fish. The harvest was composed of 350 Chinook, 338,000 sockeye, 850 coho, 2.7 million pink, and 39,000 chum salmon (Table 1), of which 1.0 million (32%) were commercial harvest and 2.1 million (68%) were hatchery cost recovery. Total commercial harvest value was estimated to be $1.6 million. In 2023, the Cook Inlet Aquaculture Association (CIAA) cost recovery goal of $4.6 million was not attained with approximately $2.6 million achieved. All data in this summary are preliminary.

Southern District

The 2023 preseason commercial harvest forecast for the Southern District was 78,200 sockeye and 75,000 pink salmon with an additional 75,400 hatchery-produced sockeye and 1.6 million hatchery pink salmon available in special harvest areas (SHAs). The purse seine harvest was 54 Chinook, 75,490 sockeye, 203 coho, 542,642 pink, and 380 chum salmon with 10 permit holders reporting deliveries. This compares to previous 10-year average harvests of 96 Chinook, 54,315 sockeye, 1,406 coho, 130,358 pink, and 1,235 chum salmon. Total hatchery sockeye salmon returns to the Southern District was estimated at 123,242 fish with approximately 61% harvested by commercial permit holders with the balance (47,893 fish) harvested for cost recovery by CIAA. Total pink salmon return to the Tutka hatchery was 2.5 million fish with approximately 22% of those harvested by commercial permit holders and the remainder (78% or 1.9 million fish) taken for cost recovery. Hatchery returns for both species were above preseason projections.

The 2023 set gillnet harvest was 193 Chinook, 19,470 sockeye, 451 coho, 5,838 pink, and 2,489 chum salmon with 20 permits reporting deliveries. The previous 10-year average harvests for this gear type were 383 Chinook, 25,990 sockeye, 2,719 coho, 20,884 pink, and 4,482 chum salmon.

There are eight sustainable escapement goals (SEGs) in the Southern District: six for pink salmon, one for chum salmon, and one for sockeye salmon. Escapement at the English Bay River weir was 23,661 sockeye salmon which is above the SEG range of 6,000–13,500 for this system. Pink salmon escapements were below the SEGs range for Humpy and China Poot Creeks, and above the SEGs for Barabara, Seldovia, and Tutka Creeks, as well as the Port Graham River. Chum salmon escapement in the Port Graham River was within the SEG.

Outer District

The 2023 preseason commercial harvest forecast for the Outer District was 9,000 sockeye, 1.7 million pink, and 23,500 chum salmon. The harvest, from the five permit holders that participated, was 73 Chinook, 47,580 sockeye, 7 coho, 158,341 pink, and 33,207 chum salmon. This harvest compares to previous 10-year average harvests of 23 Chinook, 5,904 sockeye, 384 coho, 1.3 million pink, and 55,370 chum salmon. Outer District harvest came to an abrupt end in mid-August when processors suspended operations due to low salmon prices. As a result of this excess fish were not harvested. This was reflected in higher escapements in many Outer District pink and chum salmon index systems.

There are 15 SEGs in the Outer District: nine for pink salmon, four for chum and two for sockeye salmon. Pink salmon escapements were within their respective SEG at South Nuka and Desire Creeks, as well as in the Rocky River. Pink salmon were above their respective SEGs at Windy Left, Windy Right, and Dogfish Lagoon creeks as well as in Port Chatham creeks, Port Dick and Island Creeks. Pink salmon returns were within the SEGs for South Nuka Island and Desire Lake Creeks, as well as in the Rocky River. Chum salmon escapement was above the SEG range for the Rocky

River, Port Dick, and Island Creeks, and below the SEG at Dogfish Creek. The sockeye salmon escapement to Desire Lake was above the SEG and within the SEG for Delight Lake.

Kamishak Bay District

The 2023 preseason commercial harvest forecast for the Kamishak Bay District was 59,200 sockeye, 600 coho, 63,600 pink, and 8,900 chum salmon. CIAA forecasted a run of 32,000 sockeye salmon to the Kirschner Lake remote release site. The Kamishak Bay District commercial harvest estimate is confidential due to fewer than three permit holders reporting deliveries from this area. The previous 10-year average commercial harvest is 41,219 sockeye, 1,321 coho, 46,879 pink, and 10,080 chum salmon harvested in the commercial fishery. In addition, 31,348 sockeye salmon were harvested by CIAA from the Kirschner Lake SHA for cost recovery.

There are 13 SEGs in the Kamishak District: seven for chum salmon, three for sockeye, and three for pink salmon. Chum salmon escapement was within the SEG for Cottonwood Creek, Big Kamishak, and McNeil Rivers. Chum salmon escapement was above the SEG in the Little Kamishak River, Bruin River, Ursus Cove Creek, and Iniskin River. Pink salmon escapements were above SEG in Sunday and Brown's Peak Creeks, and within the SEG for Bruin River. Sockeye salmon escapement to Chenik Lake and Amakdedori Creek were within the SEGs. Sockeye salmon escapement to Mikfik Lake was not fully enumerated due to an issue with the remote video monitoring system.

Eastern District

Due to small runs in the last 10 years, no wild stock sockeye or pink salmon were forecasted to be available for commercial harvest from the Eastern District in 2023. CIAA forecasted a total run of 89,900 sockeye salmon to Resurrection Bay release sites with 74,400 fish needed for broodstock and cost recovery. Total cost recovery harvest from this district was 74,759 sockeye salmon. An additional 3,539 sockeye salmon were donated to the public by CIAA. Commercial harvest numbers for this district are confidential due to fewer than three permit holders reporting harvests. The previous 10-year commercial harvest average for sockeye salmon is 5,471 fish. CIAA passed 10,004 sockeye salmon through the Bear Creek weir in 2023. However, 2,029 sockeye salmon were subsequently removed from Bear Lake for broodstock, leaving a final spawning escapement of 7,975 fish, which is within the SEG of 700–8,300. Hatchery returns of sockeye salmon to this district were comparable to preseason anticipated levels. The only other index stock in the Eastern District is Aialik Lake sockeye salmon which exceeded the SEG.

Table 1. Lower Cook Inlet commercial salmon harvest based on preliminary fish ticket data, 2023.

District (or hatchery)	Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
Southern District	10	54	75,490	203	542,642	380	618,769
Outer District	5	73	47,580	7	158,341	33,207	239,208
Eastern District	<3*	---	---	---	---	---	---
Kamishak Bay District	<3*	---	---	---	---	---	---
Purse seine total	11	127	160,888	210	752,268	36,764	950,257
Southern District	20	193	19,470	451	5,838	2,489	28,441
Set gillnet total	20	193	19,470	451	5,838	2,489	28,441
Commercial total		320	180,358	661	758,106	39,253	978,698
Hatchery cost recovery harvests							
Tutka Lagoon SHA		0	20,196	15	1,934,470	57	1,954,738
Port Graham SHA							0
China Poot SHA		0	27,697	0	15	0	27,712
Resurrection Bay SHA		0	74,759	0	0	123	74,882
Kirschner Lake SHA		0	31,348	0	898	6	32,252
Hatchery total			154,000	15	1,935,383	186	2,089,584
Hatchery donated fish		0	3,539	0	0	0	3,539
Commercial homepack		8	250	181	54	2	495
LCI total harvest		328	338,147	857	2,693,543	39,441	3,072,316

*Note: Harvests from areas where there were fewer than 3 permit holders reporting deliveries are confidential.