Advisory Announcement
For Immediate Release: 12/13/2024

CONTACT:
Finfish Research Biologist
M. Birch Foster 907-486-1857

2025 Chignik and Alaska Peninsula Management Areas Salmon Forecasts

Chignik Management Area

The 2025 Chignik Management Area predicted sockeye salmon harvest is expected to be in the ***Weak*** category with a point estimate of 757 thousand (Table 1).

Table 1.–Point estimate and ranges (80% prediction intervals) of the 2025 Chignik sockeye salmon forecasts.

Stock	Escapement goal (thousands)	2025 run	Point estimate (thousands)	Range (thousands)
Total Chignik	BEG: 450–800 OEG: 540–760	Total Run Estimate	1,334	557–3,410
		Escapement goal [a]	650	
		Harvest	684	
		CMA harvest [b]	757	
		SEDM Area [c]	0	
		Cape Igvak [d]	0	
		Harvest Category	***Weak***	

[a] The escapement estimate is the midpoint of the combined optimal escapement goals (OEGs) for the early run (300,000 to 400,000) and the late run (240,000 to 360,000).

[b] To approximate for the mixed-stock nature of the CMA fishery, the total Chignik River sockeye salmon harvest is expanded to project the total CMA harvest (20-year average estimate of Chignik-bound sockeye harvest in Chignik area is approximately 90.4%) less the Chignik sockeye harvested at SEDM and Cape Igvak. Of the CMA harvest, 684,000 sockeye salmon are estimated to be Chignik bound and 73,000 fish are estimated to be fish harvested while transiting through the CMA.

[c] Based on projected harvest, no commercial fishery is anticipated in the Southeastern District Mainland (SEDM) during the regulatory timeframe thru July 25, as outlined in regulation (5 AAC 09.360).

[d] Based on projected harvest, no commercial fishery is anticipated in the Cape Igvak Section during the regulatory timeframe through July 5, as outlined in regulation (5 AAC 18.360).

Harvest categories were delimited from the 20th, 40th, 60th, and 80th percentiles of historical Chignik Management Area commercial harvest 1990 to 2024 (Table 2).

Table 2.–Categorical ranges of total Chignik sockeye salmon harvest.

Harvest Category	Range (thousands)	Percentile
Poor	Less than 691	Less than 20th
Weak	691 to 1,047	21st to 40th
Average	1,047 to 1,382	41st to 60th
Strong	1,382 to 1,777	61st to 80th
Excellent	Greater than 1,777	81st to 100th

The Chignik sockeye salmon harvest forecast is derived from a combination of the formal forecasts for the Chignik early and late runs. Harvest estimates are calculated from the total run forecast minus the estimated escapement. The run forecasts are primarily made by investigating simple linear regression models utilizing recent outmigration year age-class relationships and median returns. The mean absolute percent error since 2001 is 46.6% for the total sockeye salmon forecast compared to actual. The projection of a weak Chignik sockeye salmon run is likely influenced in part by extremely low escapement during the 2020 season.

Alaska Peninsula Management Area

The 2025 South Alaska Peninsula predicted pink salmon harvest (post June) is expected to be in the ***Excellent*** category with a point estimate of 10.6 million (Table 3).

Table 3.–Point estimate and ranges (80% prediction intervals) of the 2025 South Alaska Peninsula pink salmon forecast.

Stock	Escapement goal (millions)	2025 run	Point estimate (millions)	Range (millions)
South Alaska Peninsula	SEG: 1.75–4.0	Total run forecast [a]	14.6	10.6–18.6
		Escapement [b]	4.0	
		Post-June harvest estimate	10.6	6.6–14.6
		Harvest category	***Excellent***	

[a] Post-June harvest and escapement. The 5-year (odd-year) average harvest of pink salmon in June is 3.1 million fish.
[b] The escapement estimate is the upper end of the aggregate goal range (1.75–4.0 million) in 2025.

Harvest categories were delimited from the 20th, 40th, 60th, and 80th percentiles of historical post-June commercial harvest on the South Alaska Peninsula from 1984 to 2024 (Table 4).

Table 4.–Categorical ranges of South Alaska Peninsula pink salmon harvest.

Harvest Category	Range (millions)	Percentile
Poor	Less than 1.8	Less than 20th
Weak	1.8 to 4.0	21st to 40th
Average	4.0 to 7.0	41st to 60th
Strong	7.0 to 10.0	61st to 80th
Excellent	Greater than 10.0	81st to 100th

The South Alaska Peninsula pink salmon harvest forecast is derived from a total run forecast minus the estimated escapement (4.0 million). The total run estimates were derived from a combination of aerial survey index, and harvest estimates.

The 2025 South Alaska Peninsula pink salmon forecast was based on a generalized Ricker model using environmental, escapement, and sea surface temperature indices fit to the odd-year returns from 1987 to 2023. The mean absolute percent error of the composite model annual hindcast estimates is 20.2%. This is the first year that a model similar to the one used to predict Kodiak wild stock pink salmon is being utilized for the South Alaska Peninsula.

Table 5.–Point estimate and ranges of 2025 North Alaska Peninsula sockeye salmon forecasts.

Stock	Escapement goal (thousands)	2025 run	Point estimate (thousands)	Range (thousands)
Nelson River	BEG: 97–219	Forecast	430	190–659
		Escapement	158	97–219
		Harvest estimate	272	
Late-run Bear Lake	BEG: 117–195	Late-run forecast	389	143–558
		Late-run escapement	156	117–195
		Late-run harvest estimate	233	

On the North Peninsula, the Nelson River and Bear Late-run sockeye salmon harvest forecasts are calculated from the total run forecast minus the estimated escapement (Table 5). The run forecasts are primarily made by investigating simple linear regression models utilizing recent outmigration year age-class relationships, parent escapement, and median returns. Forecasting sockeye salmon harvest for the North Alaska Peninsula outside Nelson Lagoon and Bear Late run (post July 31) is not done as stock specific harvest estimates outside of these areas and timeframes is unknown.

The Chignik and Alaska Peninsula Management Areas salmon forecasts are authored by Alaska Department of Fish and Game Finfish Research Biologists: Heather Finkle, Mary Beth Loewen, and M. Birch Foster.