MATANUSKA-SUSITNA BOROUGH Fish & Wildlife Commission

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Regular Meeting

February 13, 2025

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Physical Location of Meeting: Room 203 DSJ Bldg, Palmer. Remote Participation: See agenda.

Planning and Land Use Department - Planning Division

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Cold-water refuges

Spatial variation in water temperature is a key feature of habitat complexity that contributes to the movement, resilience, and persistence of cold-water fishes, including salmonids. During spawning migration, periods of high river temperatures can block migratory corridors and cause thermal stress or mortality. If available, fish seek out localized patches of cool water (i.e. cold-water refuges), allowing persistence in streams that would otherwise be unsuitable. Cold-water refuges have been identified through airborne thermal imagery on the Deshka River and contribute to an overall cooling gradient in the main channel (Mauger et al. 2023). Additionally, thermal refugia originating from groundwater upwelling are relatively warm during winter and can also provide ice-free overwintering habitats for juvenile salmon.

Ground-water sources, such as springs or seeps, may originate a significant distance away from the river channel. Activities that divert groundwater pathways or disrupt the functional integrity of surrounding landscapes can reduce, contaminate or warm these cold-water contributions. Angling pressure should be minimized during high water temperature periods where fish congregate at cold-water tributaries. Warming summer temperatures will increase the importance of the reliable presence of cold-water refugia for the persistence of salmonids and other fish species in the decades ahead (Mejia et al. 2023).

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Mauger, S., C. Babbott-Bryan, and K. Walsh. 2023. Building Habitat Resiliency for Chinook Salmon in the Deshka River Watershed. AKSSF Project #53004, Cook Inletkeeper, Homer, AK. p. 23.

Mejia, F. H., Ouellet, V., Briggs, M. A., Carlson, S. M., Casas-Mulet, R., Chapman, M., Collins, M. J., Dugdale, S. J., Ebersole, J. L., Frechette, D. M., Fullerton, A. H., Gillis, C.-A., Johnson, Z. C., Kelleher, C., Kurylyk, B. L., Lave, R., Letcher, B. H., Myrvold, K. M., Nadeau, T.-L. … Torgersen, C. E. (2023). Closing the gap between science and management of cold-water refuges in rivers and streams. *Global Change Biology*, *00*, 1–27. https://doi.org/10.1111/gcb.16844

C1 Cook Inlet Salmon

February 2025

Action Memo

Council Staff: Dr. Diana Stram

Other Presenters: Dr. Richard Brenner (NOAA), Aaron Lambert (NOAA), Dr. Lukas DeFilippo (AFSC), Adam Zaleski (NOAA), Doug Duncan (NOAA), Gretchen Harrington (NOAA)

Action Required:

1. Review the 2025 Preliminary Salmon Stock Assessment and Fishery Evaluation Report for the Salmon Fisheries of the Cook Inlet Exclusive Economic Zone Area (SAFE).
2. Approve the SAFE
3. Recommend Final 2025 harvest specifications including:
    a. The tier level for each stock and the appropriate buffer;
    b. Overfishing Level (OFL) and Acceptable Biological Catch (ABC) for all stocks as recommended by the SSC;
    c. 2024 overfished/overfishing status in relation to status determination criteria; and
    d. Total Allowable Catch (TAC) for each species.

BACKGROUND

At this meeting, the Council will review and approve the 2025 Preliminary Stock Assessment and Fishery Evaluation Report for the Salmon Fisheries of the Cook Inlet Exclusive Economic Zone Area; and make final recommendations on the 2025 harvest specifications for each of the salmon stocks. Once NMFS receives the SSC and Council recommendations, NMFS will publish proposed and final harvest specifications in the Federal Register.

SAFE Report

This is the second SAFE for the Federal salmon fisheries in the Cook Inlet exclusive economic zone (EEZ) Area. The SAFE provides the best scientific information available on the biological condition of salmon stocks harvested in the Cook Inlet EEZ and provides the information for the Council's Scientific and Statistical Committee (SSC) to recommend status determination criteria and the Council to recommend TACs for the 2025 fishing season. The SAFE also provides proposed specifications for SSC and Council consideration.

Under the terms of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the National Standard 1 Guidelines (50 CFR 600.310), and amendment 16 to the Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska (Salmon FMP), this SAFE uses the tier system and harvest specifications process described in the Salmon FMP to calculate SDC and recommend ABC. As allowed by the Salmon FMP and National Standard Guidelines, this SAFE incorporates changes to assessment methods that were recommended by the SSC during 2024, and also makes new recommendations to the SSC for the coming fishing season. The National Marine Fisheries Service (NMFS) prepared this SAFE as part of the process to federally manage the salmon fisheries in the CI EEZ. In implementing the CI EEZ

salmon fishery in 2024, NMFS published a proposed rule and notice of availability for amendment 16 on October 18, 2023 (88 FR 72314). The final rule implementing amendment 16 was published on April 30, 2024 (89 FR 34718). Proposed harvest specifications for the 2024 CI EEZ salmon fishery were published on April 12, 2024 (89 FR 25857); NMFS received 21 public comment letters on the proposed harvest specifications before the end of the comment period on May 13, 2024. Public comments pertaining to the 2024 CI SAFE were responded to in the final 2024 harvest specifications published on June 18, 2024 (89 FR 51448). The 2024 salmon fishing season in the CI EEZ began on June 20, 2024 and closed by regulation on August 15, 2024. .

OFLs, ABCs, TACs

The NOAA SAFE Team 2025 recommendations to the SSC and Council are included in the Executive Summary of the SAFE report and are as follows:

Stock	Tier	MFMT	MSST	OFL	OFL_{PRE}	Buffer	ABC/ACL
Kenai Late-Run Sockeye	1	0.327	1,875,000	NA	976,761	27.3%	709,954
Kasilof Sockeye	1	0.572	350,000	NA	746,294	57.0%	320,841
Aggregate “Other” Sockeye	3	NA	163,000	906,757	181,351	15%	154,148
Aggregate Chinook	3	NA	45,000	2,237	373	30%	261
Aggregate Coho	3	NA	38,800	268,053	67,013	90%	6,701
Aggregate Chum	3	NA	NA	390,030	97,508	20%	78,006
Aggregate Pink	3	NA	NA	116,348	58,174	10%	52,357

In addition to recommending appropriate Tier levels and OFLs for all stocks, the SSC can recommend alternative buffers for establishing the ABC. The buffers refer to the difference between the OFL and the ABC. An assessment of the status determination for these stocks in relation to overfished criteria for 2024 is also contained in the SAFE report and will be presented by staff in conjunction with the 2025 proposed specifications.

The NMFS SAFE Team assesses that, based on status determination criteria that are compliant with the MSA, National Standard Guidelines, and the approved Salmon FMP, there is available yield of Tier 1 sockeye salmon stocks that could reasonably be harvested in the Cook Inlet EEZ salmon fishery while still allowing harvests in all other (i.e., State) fisheries and achieving spawning escapement goals that have the highest probability of producing maximum sustainable yield (MSY) over the long term. The estimated amount of available yield that could be harvested in the CI EEZ is dependent upon modeled output that takes into account and applies conservative buffers to estimates of the total run size and State harvests. In addition, the estimated amount of available yield also accounts for the deterministic value of a spawning escapement target. The NMFS SAFE Team recommends that the lower bound of the State’s spawning escapement targets for these Tier 1 stocks are reference points that represent the best scientific information available to define the number of spawners that are likely to produce MSY over the longer term, and that these lower bounds should be used as the spawning escapement targets to calculate SDC and available yield in the CI EEZ.

In order to prevent overfishing the Federal COHO stock complex, the NMFS SAFE Team recommends that for the 2025 fishing season, a precautionary buffer is warranted to reduce the preseason OFL to the resulting ABC. In future years, the NMFS SAFE Team will reassess the recommended 2025 buffer (90%) and it is likely to pay particular attention to the extent to which spawning escapement targets for indicator stocks are achieved. The NMFS SAFE Team recommends research to estimate the total run size of the COHO stock complex in order to estimate harvest rates in

the CI EEZ.

Within this 2025 SAFE, the NMFS SAFE Team has prioritized and implemented the vast majority of SSC recommendations following their review of the 2024 assessment and intends to implement remaining SSC recommendations and make other improvements on the CI EEZ during future years.

The Council can consider additional adjustments to species-level TACs, including buffers to account for new management of the fishery (e.g., species-level buffers for the first year(s) of the Federal fishery), and to account for other social, economic, and ecological factors, including to ensure sufficient prey for endangered Cook Inlet beluga whales.

The NMFS SAFE Team recommended SDC and harvest specifications based on sources of uncertainty and the biological attributes of the species being assessed; however, additional sources of uncertainty were not factored into the 2025 SAFE recommendations, including the inability to confirm historical estimates of salmon harvests in the CI EEZ prior to 2024 (which are a substantial basis for the 2024 and 2025 recommendations); the level of participation in the EEZ salmon fishery prior to 2024; the spatial distribution of fishing effort within the CI EEZ prior to 2024 and effects of that effort on harvests of weaker stocks (Chinook and coho salmon in particular); and harvests and harvest rates for individual stocks and species given the new management structure of having both State of Alaska (State) and Federal salmon fisheries in CI. There are likely other sources of uncertainty that were also not accounted for in the SAFE recommendations. To the extent practicable, the NMFS SAFE Team aims to incorporate additional sources of uncertainty and include risk tables into future assessments and welcomes input on assumptions, estimates, and analyses used in this 2025 SAFE.

Environmental Assessment:

Also posted to the Council's eAgenda is the Environmental Assessment (EA) for setting the Cook Inlet harvest specifications. This NEPA document is used to support the proposed and final harvest specifications. There is no requirement for an RIR because harvest specifications are not rulemaking. An initial and final regulatory flexibility analysis (IRFA/FRFA) are provided with the final rule documents. All economic information used to inform Amendment 16 to the Salmon FMP is provided in the EA/RIR for Amendment 16. Data from the 2024 fishery is provided in the 2025 EA & SAFE.

C1 Council Motion
2025 Cook Inlet Salmon Harvest Specifications
February 6, 2025

The Council adopts the Preliminary 2025 Cook Inlet Salmon SAFE report.

The Council recommends that NMFS adopt the 2025 Cook Inlet EEZ Area salmon specifications for OFLs and ABCs as recommended by the SSC, and the TACs as shown below in Table 1.

Table 1: Proposed 2025 harvest specifications for Cook Inlet EEZ Area salmon stocks. The *SSC recommended* minimum stock size threshold (MSST), preseason overfishing level (OFL), acceptable biological catch (ABC), annual catch limit (ACL), and *Council recommended* total allowable catch (TAC) are in numbers of fish.

Stock	Tier	MFMT	MSST	OFL	OFL_{PRE}	ABC Buffer	ABC/ACL	TAC Buffer	TAC
Kenai Sockeye (KNSOCK)	1	0.196	3,030,000	NA	514,761	30%	360,332	0%	
Kasilof Sockeye (KASOCK)	1	0.511	555,000	NA	664,294	57%	285,646	0%	800,126*
Aggregate Sockeye (AOSOCK)	3	NA	163,000	906,757	181,351	15%	154,148	0%	
Aggregate Chinook (ACHIN)	3	NA	40,500	2,237	373	30%	261	0%	261
Aggregate Coho (COHO)	3	NA	38,800	268,053	67,013	75%	16,753	0%	16,753
Aggregate Chum (CHUM)	3	NA	NA	390,030	97,508	20%	78,006	0%	78,006
Aggregate Pink (PINK)	3	NA	NA	116,348	58,174	10%	52,357	0%	52,357

* Combined sockeye salmon TAC. The sum of KNSOCK, KASOCK, and AOSOCK.

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February 13, 2025

To Matanuska-Susitna Borough Assembly Members,

The Matanuska-Susitna Borough (MSB) Fish and Wildlife Commission is pleased to express its support for the *Healthy Mat-Su Riparian Areas: Education and Outreach* initiative, funded through the Alaska Clean Water Actions (ACWA) grant awarded to the Matanuska-Susitna Borough by the Alaska Department of Environmental Conservation (DEC).

The ACWA grant will be implemented over a two-year period, with full funding provided by Alaska DEC. The scope of the project includes research, public outreach, and educational activities for the residents of the Matanuska-Susitna Borough. The primary objective is to raise awareness and educate local communities about the importance of maintaining healthy riparian areas and their direct impact on our watersheds.

Through active community engagement, the MSB Planning Department will ensure that the program's educational resources are effectively tailored to meet the community's needs. Thank you for your attention and support for this vital initiative.

Sincerely,

_____
Mr. Andy Couch – Chair,
MSB Fish and Wildlife Commission

_____
Ms. Rebecca Skjothaug – Attest