



MEMORANDUM

TO: Israel Payton, Director, Division of Sport Fish

DATE: April 01, 2026

Forrest Bowers, Director, Division of Commercial Fisheries

SUBJECT: Lower Cook Inlet Escapement Goal Findings

THRU: Kristine Dunker, Regional Supervisor, Division of Sport Fish, Region II *KJD*

Bert Lewis, Regional Supervisor, Division of Commercial Fisheries, Region II *BL*

FROM: Nick DeCovich, Regional Research Coordinator, Division of Sport Fish, Region II *ND*

Jack W. Erickson, Regional Research Coordinator, Division of Commercial Fisheries, Region II *JWE*

The Alaska Department of Fish and Game (department) reviewed escapement goals for salmon stocks in the Lower Cook Inlet Management Area as part of the 2026–2027 Board of Fisheries regulatory cycle.

Based on this review, the department recommends:

- No change to escapement goals for any king, chum, pink, or sockeye salmon stocks.
- Establishment of a weir-based sustainable escapement goal (SEG) for Anchor River coho salmon (2,300–4,700).

Details of the escapement goal review committee findings are found below, and an overview of this review will be provided at the Board of Fisheries work session in October 2026.

This memo presents the department review and recommendations for escapement goals for Lower Cook Inlet Management Area (LCIMA). The *Policy for Statewide Salmon Escapement Goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the department and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. Under the policy, the board recognizes and describes the department's responsibility for establishing and modifying biological escapement goals (BEG) and sustainable escapement goals (SEG).

Beginning in September 2025, an interdivisional salmon escapement goal committee, including staff from the divisions of Commercial Fisheries and Sport Fish, met twice to discuss salmon escapement goals in the LCIMA. Escapement goals for this area have been set and evaluated at regular intervals since statehood and many of these stocks have long-term historical datasets. The review was based on the *Policy for the Management of Sustainable Salmon Fisheries* (5 AAC 39.222) and the *Policy for Statewide Salmon Escapement Goals* (5 AAC 39.223). Two important terms are

5 AAC 39.222 (f)(3) “*Biological Escapement Goal* (BEG): the escapement that provides the greatest potential for maximum sustained yield (MSY);” and

5 AAC 39.222 (f)(36) “*Sustainable Escapement Goal* (SEG): a level of escapement, indicated by an index or an escapement estimate, that is known to provide for sustained yield over a 5 to 10 year period, used in situations where a BEG cannot be estimated or managed for.”

The committee determined the appropriate goal type (BEG or SEG) for each salmon stock with an existing goal and reviewed other monitored stocks that do not have escapement goals. Using available data, we determined the most appropriate methods to develop each escapement goal.

Currently, 17 escapement goals are established in LCIMA (Table 1). Due to the comprehensive previous analyses in Otis et al. 2023, the review committee focused its attention on updating and reviewing the stock-recruit analyses for the following stocks.

Anchor River king salmon

The committee findings are for no change to the current SEG (3,200–6,400). The committee discussed converting this escapement goal to one based on large fish only but ultimately decided that the current goal is appropriate.

Deep Creek king salmon

The committee findings are for no change to the current lower bound SEG (350). The committee discussed eliminating this escapement goal because funding limits the department's ability to conduct aerial surveys and management of the sport fishery is tied to the Anchor River escapement performance with the management plan (5 AAC 56.122 and 5 AAC 56.130). Ultimately it was decided to keep the goal because funding for aerial surveys may be obtained in the near future.

Ninilchik River king salmon

The committee recommended no change to the current SEG of 900–1,600 based on information available at the time of review. Alternative approaches were discussed, including a size-based goal and incorporating hatchery-origin fish contributing to the spawning escapement. Additional evaluation of this goal is ongoing to better reflect total production and spawning contribution within this integrated supplementation system. This work includes development and analysis of additional data to inform potential goal changes. The results of that assessment will be provided outside of this memo as they become available.

Anchor River coho salmon

The committee findings are to establish a weir based SEG for Anchor River coho salmon (2,300–4,700). This escapement range was derived using the percentile method (Clark et al. 2014) with the lower and upper bounds corresponding approximately to the 15th and 65th percentiles of an intermittent time series of escapements from 1987 through 2025.

Lower Cook Inlet chum salmon

The committee findings are for no change to the current SEGs for three stocks: Southern District (1,500–5,000), Outer District (17,500–32,000), and the Kamishak District (50,000–115,000).

Lower Cook Inlet pink salmon

The committee findings are for no change to the current SEGs for three stocks: Southern District (50,000–110,000), Outer District (105,000–235,000), and the Kamishak District (35,000–150,000).

Lower Cook Inlet sockeye salmon

The committee findings are for no change to the current SEGs for eight stocks: English Bay (6,300–12,200), Delight Lake (5,100–10,600), Desire Lake (4,800–11,900), Bear Lake (600–8,600), Aialik Lake (3,200–5,400), Mikfik Lake (3,400–11,000), Chenik Lake (2,900–13,700), and Amakdedori Creek (1,200–2,600).

Literature Cited

- Clark, R. A., D. M. Eggers, A. R. Munro, S. J. Fleischman, B. G. Bue, and J. J. Hasbrouck. 2014. An evaluation of the percentile approach of establishing sustainable escapement goals in lieu of stock productivity information. Alaska Department of Fish and Game, Fishery Manuscript No. 14-06. Anchorage.
- Otis, E. O., J. W. Erickson, M. D. Booz, and T. McKinley. 2023. A review of escapement goals for salmon stocks in Lower Cook Inlet, Alaska, 2023. Alaska Department of Fish and Game, Fishery Manuscript Series No. 23-02, Anchorage.

Table 1 – Summary of current escapement goals and 2026 committee findings for salmon stocks in Lower Cook Inlet.

System	Current Escapement Goal			Recommended actions for 2027		
	Goal	Type	Year Adopted	Range	Data ^a	Action
King Salmon						
Anchor River	3,200–6,400	SEG	2024		Weir/Sonar	No Change
Deep Creek	350	Lower bound SEG	2017		SAS	No Change
Nimilchik River	900–1,600	SEG	2024		Weir/Video	TBD
Chum Salmon						
Southern District	1,500–5,000	SEG	2024		MFS	No Change
Outer District	17,500–32,000	SEG	2024		MAS/MFS	No Change
Kamishak District	50,000–115,000	SEG	2024		MAS	No Change
Coho Salmon						
Anchor River	--	--	--	2,300–4,700	Weir	New Goal- SEG
Pink Salmon						
Southern District	50,000–110,000	SEG	2024		MFS	No Change
Outer District	105,000–235,000	SEG	2024		MAS/MFS	No Change
Kamishak District	35,000–150,000	SEG	2024		MAS	No Change
Sockeye Salmon						
English Bay	6,300–12,200	SEG	2024		PAS/Weir	No Change
Delight Lake	5,100–10,600	SEG	2017		PAS	No Change
Desire Lake	4,800–11,900	SEG	2017		PAS	No Change
Bear Lake	600–8,600	SEG	2024		Weir	No Change
Aialik Lake	3,200–5,400	SEG	2017		PAS	No Change
Mikfik Lake	3,400–11,000	SEG	2017		Video	No Change
Chenik Lake	2,900–13,700	SEG	2017		Video/Weir	No Change
Amakdedori Cr.	1,200–2,600	SEG	2017		PAS	No Change

^a SAS = Single Aerial Survey, MAS = Multiple Aerial Surveys, PAS = Peak Aerial Survey, MFS = Multiple Foot Survey.