



MEMORANDUM

TO: Israel Payton, Director, Division of
Sport Fish

DATE: April 01, 2026

Forrest Bowers, Director, Division of
Commercial Fisheries

SUBJECT: Upper Cook Inlet Escapement
Goal Memorandum

THRU: Kristine Dunker, Regional Supervisor,
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The Alaska Department of Fish and Game (department) reviewed escapement goals for salmon stocks in the Upper 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 coho salmon stocks.
- Updating the Kasilof River sockeye salmon biological escapement goal to a range of 200,000–350,000.
- Discontinuing the Packer Creek sockeye salmon sustainable escapement goal.

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 Upper Cook Inlet Management Area (UCIMA). The *Policy for Statewide Salmon Escapement Goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (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 UCIMA. 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, 33 escapement goals are established in UCIMA (Table 1). Due to the comprehensive previous analyses (McKinley et al. 2024 McKinley et al. 2020, and Erickson et al. 2017), the review committee focused its attention on updating and reviewing the stock-recruit analyses for the following stocks.

Crooked Creek king salmon

The committee recommended no change to the current SEG of 700–1,400 based on information available at the time of review. Alternative approaches were discussed, including size-based goals 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.

Susitna River king salmon

The committee findings are for no change to the 3 SEGs and 1 BEG for the four king salmon stocks in the Susitna River drainage. The run-reconstruction and stock-recruit models used to establish the current escapement goals for Deshka, Eastside, Talkeetna, and Yentna Rivers in

2020 were updated using data available through 2025. Estimates from this analysis reveal there has been no yield available during the recent period of poor king productivity, therefore it is not reasonable to use these updates to adjust current escapement goals. A Susitna River king salmon stock status report that includes these findings will be provided prior to the 2027 UCI Board of Fisheries meeting.

Kenai River early- and late-run king salmon

The committee findings are for no change in the SEGs for either of these king salmon stocks. Large fish (fish ≥ 75 cm mid-eye-to-fork of tail length) escapement goals (assessed by estimates of large fish produced from sonar) were adopted for the first time for both of these stocks in 2017. Similar to Susitna king salmon stocks, the stock-recruit models used to develop the current escapement goals were updated with data available through 2025. These analyses indicated that there is negligible harvestable surplus available in recent years. A stock status report for early and late-run Kenai River king salmon will be provided prior to the 2027 UCI Board of Fisheries meeting.

Fish Creek sockeye salmon

The current weir-based SEG (15,000–45,000) for Fish Creek was established in 2017 using the percentile approach. For this review, the committee updated the time series through 2025 and evaluated data used in prior analyses. The committee identified several years in the historical time series that relied on alternative assessment methods to estimate sockeye salmon escapement into Fish Creek that included incomplete counts. An updated dataset excluding these years produced results consistent to previous analyses. The committee's findings are for no change to the Fish Creek sockeye salmon SEG.

Kasilof River sockeye salmon

The current sonar-based BEG (140,000–320,000) for Kasilof River sockeye salmon was established in 2020. For this review, the committee updated the escapement time series, incorporated brood table production estimates through 2018, and re-evaluated escapement and recruitment data used in prior analyses. The committee determined that production estimates prior to 1983 were unreliable for several reasons, consistent with findings reported by Hasbrouck et al. (2022) for late-run Kenai River sockeye salmon. Spawner-recruit analyses of brood years 1983–2018 indicated that a Ricker model incorporating a first-order autoregressive error structure (AR1) best described the spawner-recruit relationship for this stock. Model parameter estimates indicated an increase in the escapement that is expected to maximize yield (S_{MSY}) compared to the previous analysis (McKinley et al. 2024). The committee's findings are to update the Kasilof River sockeye salmon BEG to 200,000–350,000.

Kenai River sockeye salmon

The current sonar-based SEG (750,000–1,300,000) for Kenai River sockeye salmon was established in 2020 using a traditional Ricker stock–recruit model (Hasbrouck et al. 2022). Incorporation of additional escapement and production data through 2018 resulted in negligible changes to the estimated stock–recruit relationship and biological reference points. The committee’s findings are for no change to the Kenai River sockeye salmon SEG.

Packers Creek sockeye salmon

The current SEG (15,000–30,000) for Packers Creek sockeye salmon was established in 2008. Packer Creek sockeye salmon are no longer assessed, with no plans to assess it in the future. The project lacks funding to continue operating the video weir on a consistent basis. The project has experienced chronic technical issues that prevent staff from enumerating the entire run. The committee’s findings are to discontinue the Packers Creek sockeye salmon escapement goal.

Jim Creek coho salmon

The current SEG (250–700) for Jim Creek coho salmon is a percentile-based goal for McRoberts Creek, a tributary of the Jim Creek drainage, using a foot survey index.

At the September interdivisional escapement goal committee meeting, Palmer Sport Fish staff agreed to investigate an escapement goal based on Jim Creek weir counts. It was determined that harvest rates of > 40% precluded a percentile approach to developing weir-based goal. The committee’s findings are for no change to the Jim Creek coho salmon SEG.

Summary

In summary, the escapement goal committee reviewed 33 salmon escapement goals for the UCIMA. The committee’s findings are to update the Kasilof River sockeye SEG and discontinue the escapement goal for Packers Creek sockeye.

A report containing details of the escapement goal analyses will be published prior to the February 2027 Upper Cook Inlet regulatory meeting. A brief oral report will be given to the board at the October 2026 Work Session. A more detailed oral report concerning escapement goals will be presented to the board in February 2027. These reports will list all current and new escapement goals for UCI, as well as a detailed description of the methods used to reach the committee’s findings. In addition, stock status reports for the Susitna River and Kenai River king salmon stocks will be presented.

Salmon stock of concern recommendations will be finalized after the 2026 salmon season to include the most recent year’s escapements. These recommendations will be formalized in a memo and presented at the board Work Session in October 2026.

References Cited

- Erickson, J. W., T. M. Willette, and T. McKinley. 2017. Review of salmon escapement goals in Upper Cook Inlet, Alaska, 2016. Alaska Department of Fish and Game, Fishery Manuscript No. 17-03, Anchorage. <http://www.adfg.alaska.gov/FedAidPDFs/FMS17-03.pdf>
- Hasbrouck, J. J., W. D. Templin, A. R. Munro, K. G. Howard, and T. Hamazaki. 2022. Spawner–recruit analyses and escapement goal recommendation for Kenai River late-run sockeye salmon. Alaska Department of Fish and Game, Fishery Manuscript No. 22-01, Anchorage.
- McKinley, T., N. DeCovich, J. W. Erickson, T. Hamazaki, R. Begich, and T. L. Vincent. 2020. Review of salmon escapement goals in Upper Cook Inlet, Alaska, 2019. Alaska Department of Fish and Game, Fishery Manuscript No. 20-02, Anchorage.
- McKinley, T. R., J. W. Erickson, T. Eskelin, N. DeCovich, and T. Hamazaki. 2024. Review of salmon escapement goals in Upper Cook Inlet, Alaska, 2023. Alaska Department of Fish and Game, Fishery Manuscript No. 24-01, Anchorage.

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

System	Current Escapement Goal			Recommended actions for 2027		
	Goal	Type	Year Adopted	Range	Escapement Data ^a	Action
King Salmon						
Alexander Creek	1,900-3,700	SEG	2020		Single aerial survey	No change
Campbell Creek	340	LB SEG	2024		Single foot survey	No change
Chuitna River	1,000-1,500	SEG	2020		Single aerial survey	No change
Chulitna River	1,200-2,900	SEG	2020		Single aerial survey	No change
Crooked Creek	700-1,400	SEG	2020		Weir	TBD
Deshka River	9,000-18,000	BEG	2020		Weir	No change
Eastside Susitna R.	13,000-25,000	SEG	2020		Multiple aerial surveys ^a	No change
Kenai R. - early run (large fish) ^b	2,800-5,600	SEG	2017		Sonar	No Change
	3,900-6,600	OEG	2017		—	—
Kenai R. - late run (large fish) ^b	13,500-27,000	SEG	2017		Sonar	No change
	15,000-30,000	OEG	2020		—	—
Little Susitna R. (aerial) ^c	700-1,500	SEG	2020		Single aerial survey	No change
Little Susitna R. (weir)	2,100-4,300	SEG	2017		Weir	No change
Talkeetna River	9,000-17,500	SEG	2020		Multiple aerial surveys ^a	No change
Theodore River	500-1,000	SEG	2020		Single aerial survey	No change
Yentna River	13,000-22,000	SEG	2020		Multiple types ^a	No change
	16,000-22,000	OEG	2020		—	—
Chum Salmon						
Clearwater Creek	3,500-8,000	SEG	2017		Peak aerial survey	No change
Coho Salmon						
Deshka River	10,200-24,100	SEG	2017		Weir	No change
Fish Creek (Knik)	1,200-6,000	SEG	2020		Weir	No change
Jim Creek	250-700	SEG	2020		Single foot survey	No change
Little Susitna R.	9,200-17,700	SEG	2020		Weir	No change
Sockeye Salmon						
Fish Creek (Knik)	15,000-45,000	SEG	2017		Weir	No change
Kasilof River	140,000-320,000	BEG	2020	200,000-350,000	Sonar	Update
	140,000-370,000	OEG	2020		—	—

Table 1. Continued....

System	Current Escapement Goal			Year Adopted	Range	Recommended actions for 2017	
	Goal	Type	Year			Escapement Data ^a	Action
Kenai River	750,000-1,300,000	SEG	2020		Sonar	No change	
Packers Creek	15,000-30,000	SEG	2008		Weir	Eliminate	
Russian R. - early run	22,000-42,000	BEG	2011		—	No change	
Russian R. - late run	44,000-85,000	SEG	2020		Weir	No change	
Chelatna Lake	20,000-45,000	SEG	2017		Weir	No change	
Judd Lake	15,000-40,000	SEG	2017		Weir	No change	
Larson Lake	15,000-35,000	SEG	2017		Weir	No change	

Note: BEG = biological escapement goal; SEG = sustainable escapement goal; LB SEG = lower-bound SEG; OEG = optimal escapement goal

^a Single aerial surveys of individual tributaries are combined with other historical data to estimate annual run size for three king salmon stocks of the Susitna River drainage. For the Yentna River stock, sonar counts from Lake Creek and radio telemetry data collected in 2022 were added to the model.

^b Large fish are 75 cm mid-eye-to-fork of tail length or longer.

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