

Review of Salmon Escapement Goals Upper Cook Inlet, 2023



Kyle Gatt and Jack Erickson

Division of Commercial Fisheries

Tim McKinley

Division of Sportfish

Alaska Department of Fish and Game

Oral Report: 3

Written Report: 1



Presentation Objectives

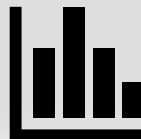
1. Introduce Escapement Goal Policies



2. Explain Review Process



3. Summarize Findings





Escapement Goal Policies

- Policy for the Management of Sustainable Salmon Fisheries (SSFP; 5 AAC 39.222)
- Policy for Statewide Salmon Escapement Goals (5 AAC 39.223)
- Goals are adopted to ensure salmon stocks are conserved, managed, and developed using the sustained yield principle



Escapement Goal Policies

Biological Escapement Goal (BEG)

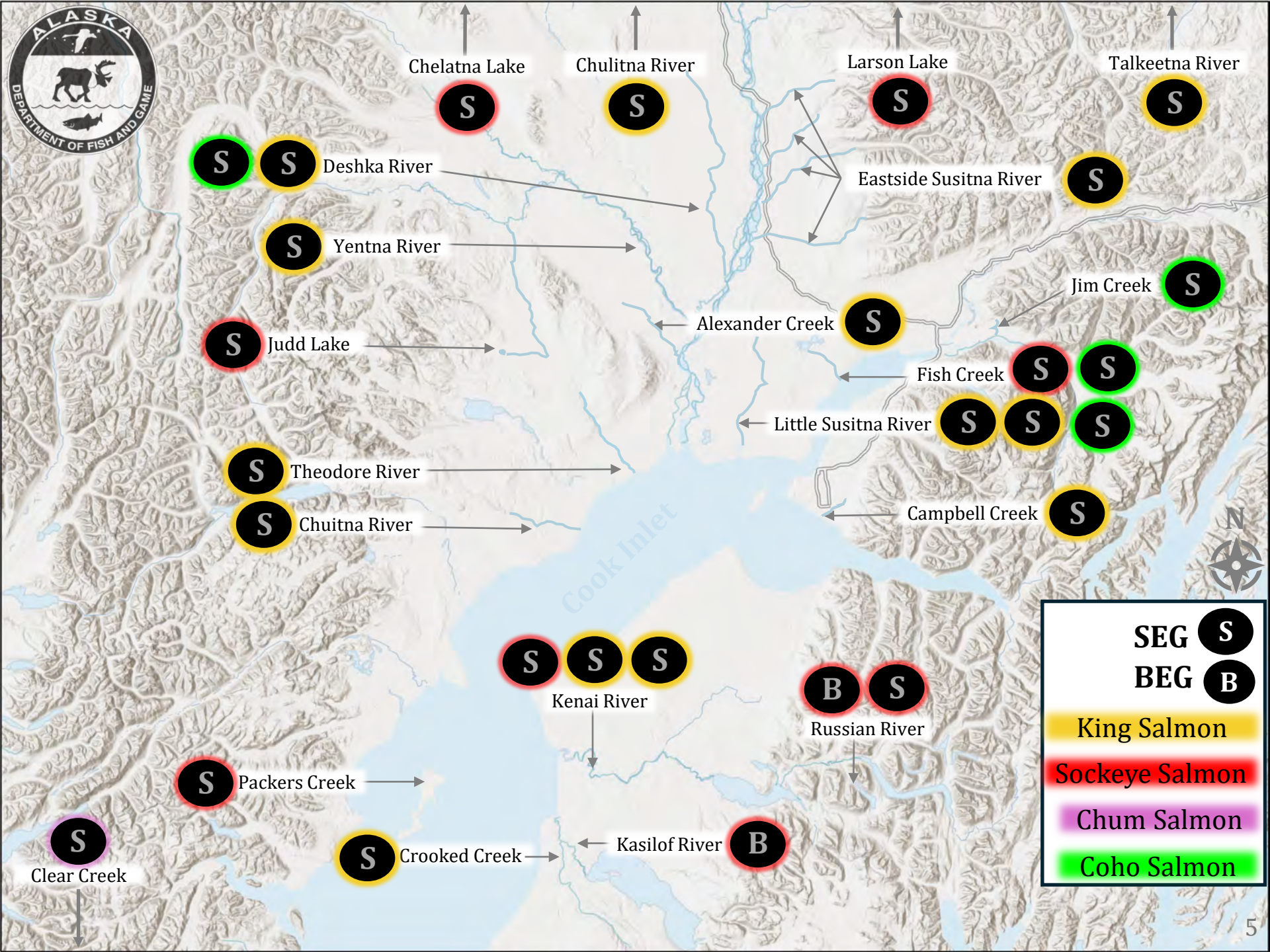
- “escapement that provides the greatest potential for maximum sustained yield”
- “expressed as a range based on factors such as salmon stock productivity and data uncertainty”

B

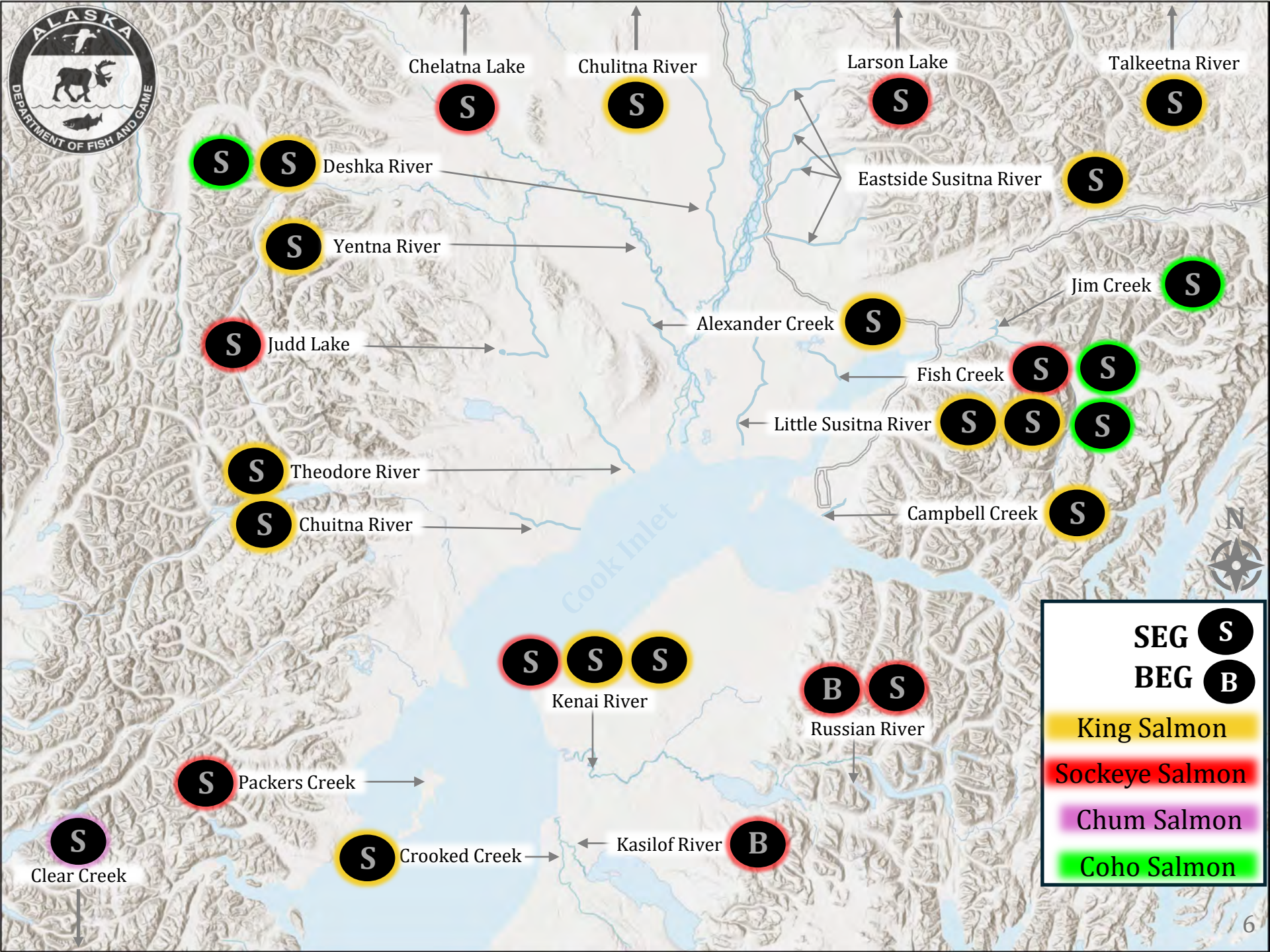
Sustainable Escapement Goal (SEG)

- “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”
- “will take into account data uncertainty and be stated as either a "SEG range" or "lower bound SEG”

S



SEG	S
BEG	B
King Salmon	
Sockeye Salmon	
Chum Salmon	
Coho Salmon	

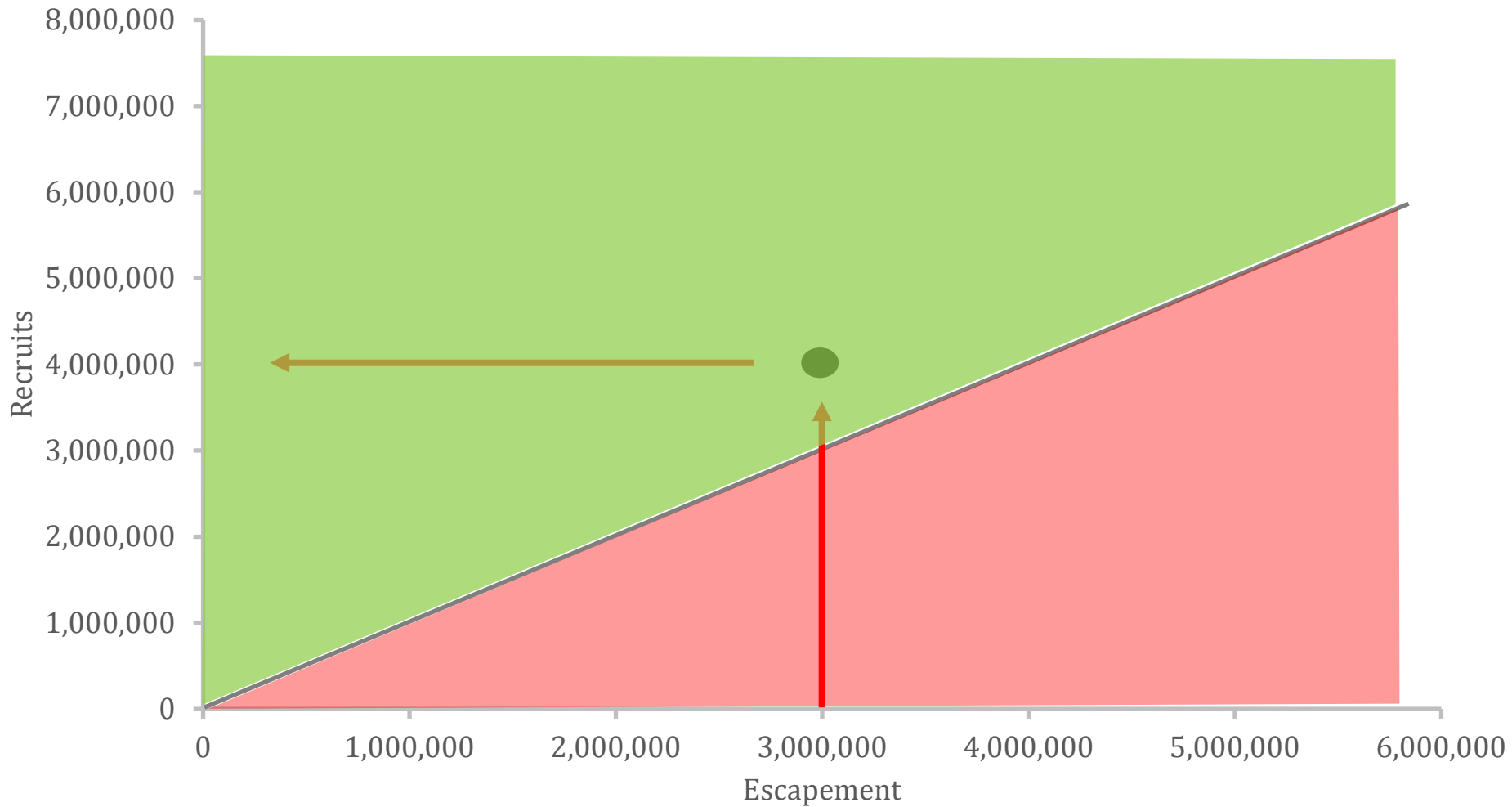


SEG **S**
BEG **B**

King Salmon
Sockeye Salmon
Chum Salmon
Coho Salmon

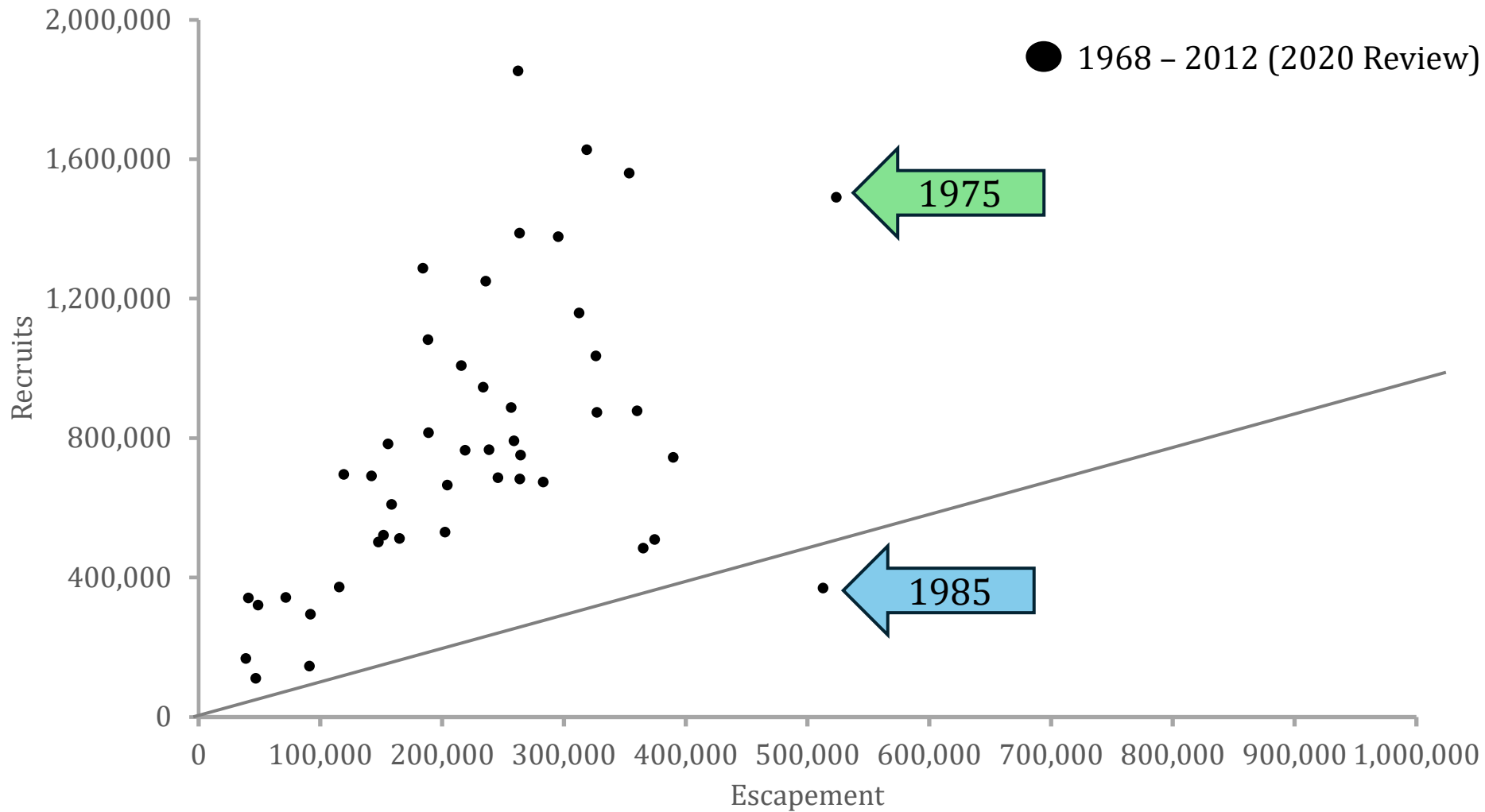


Ricker Stock-Recruit



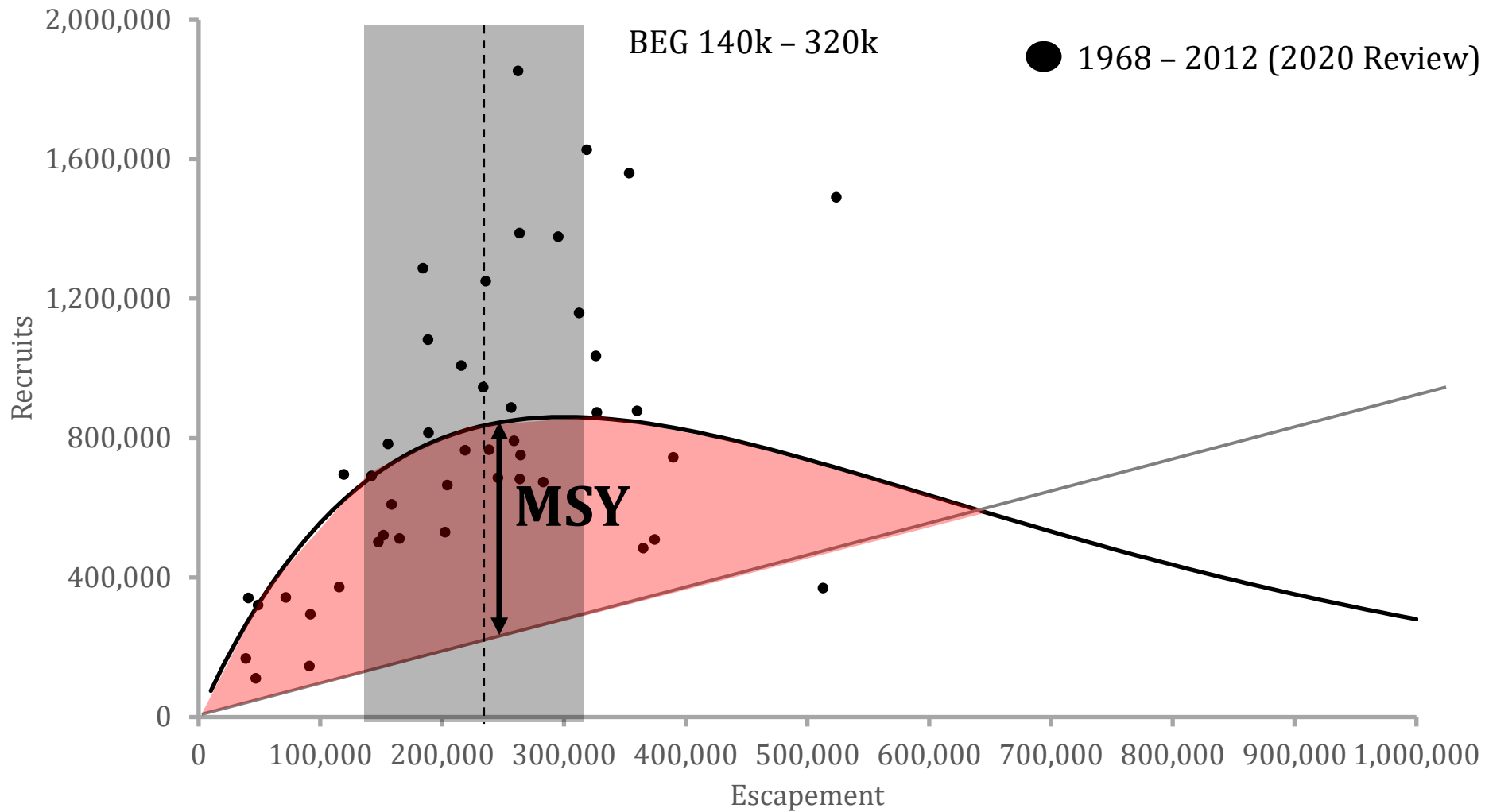


Kasilof Sockeye Ricker Stock-Recruit



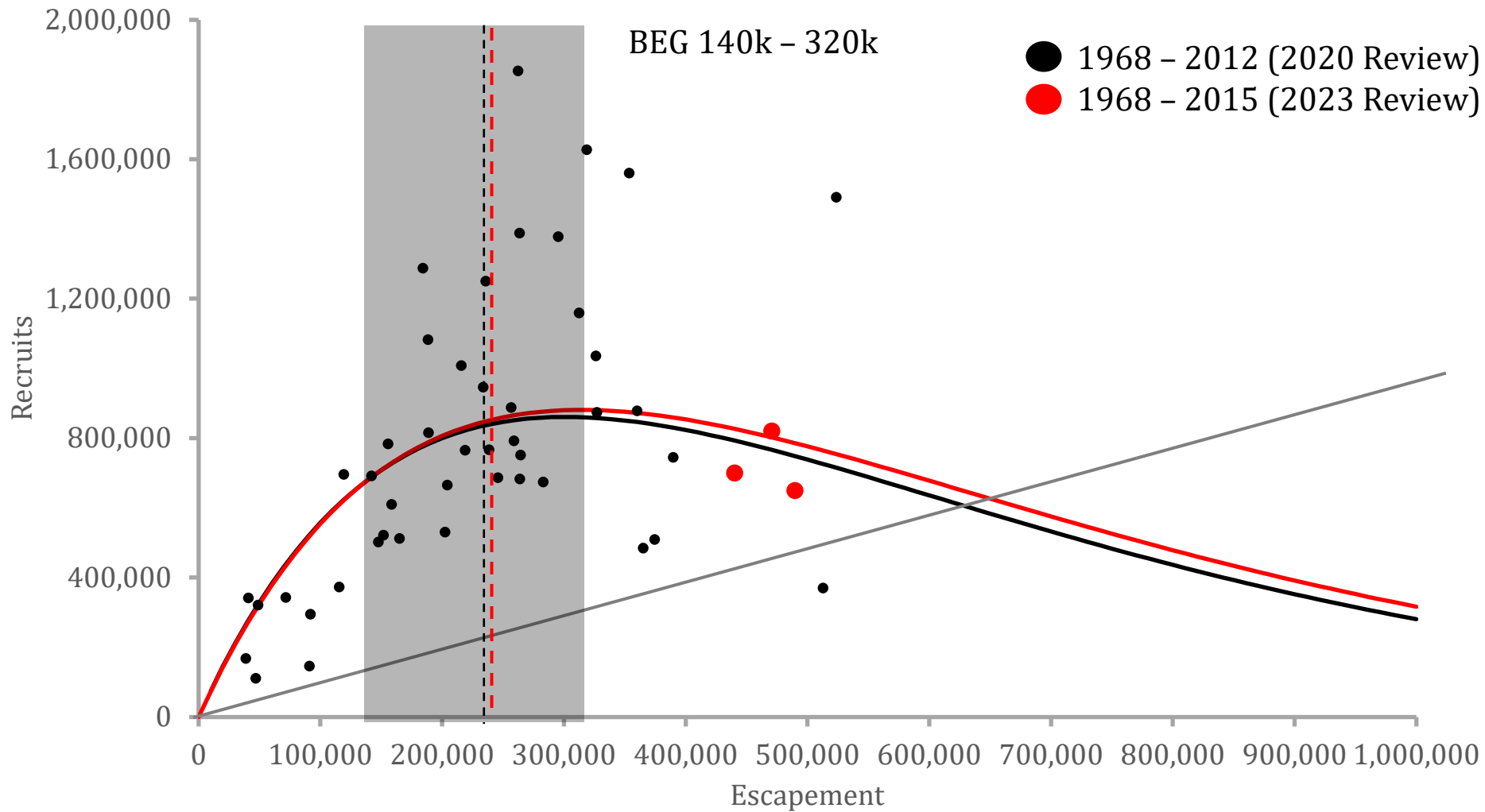


Kasilof Sockeye Ricker Stock-Recruit



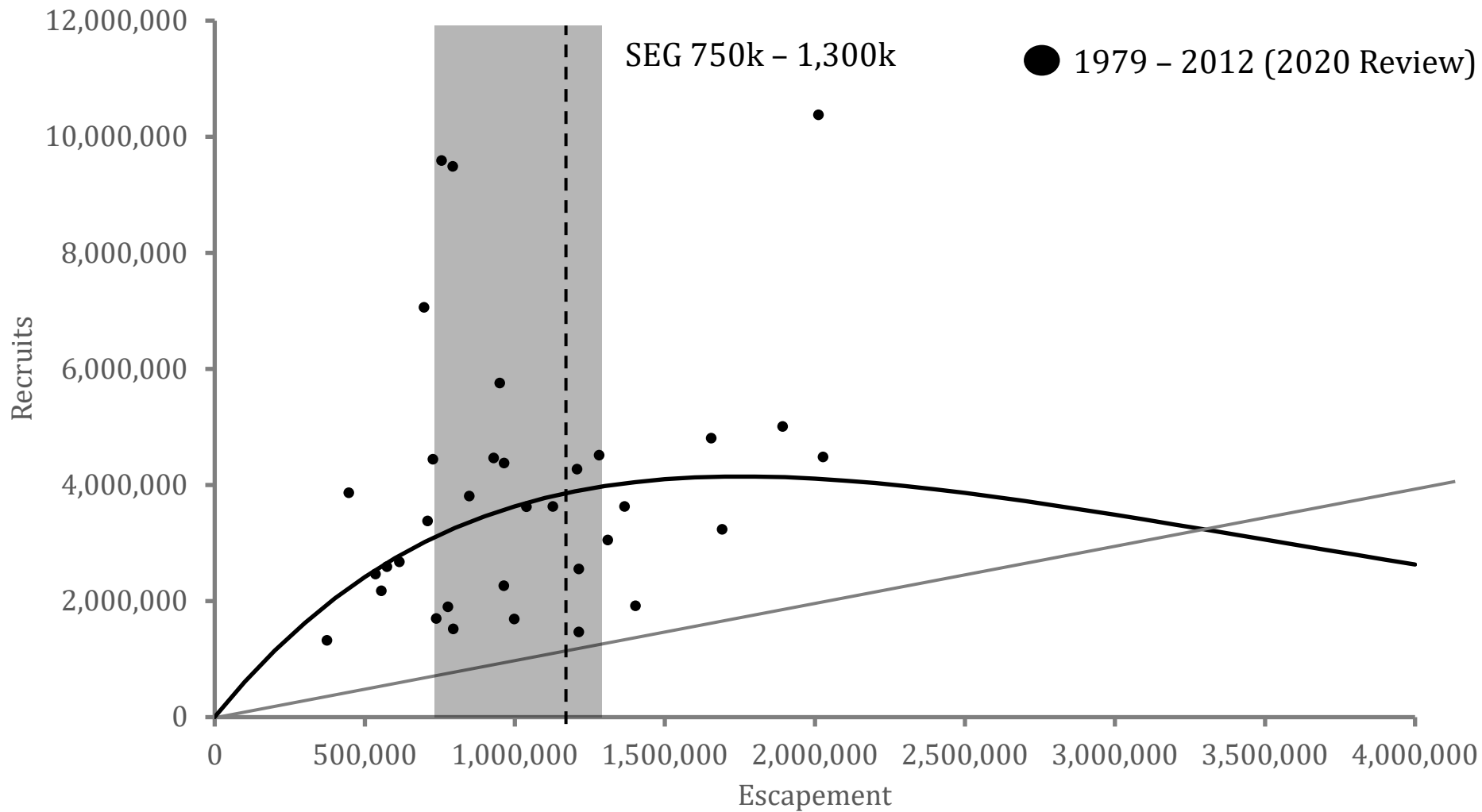


Kasilof Sockeye Ricker Stock-Recruit



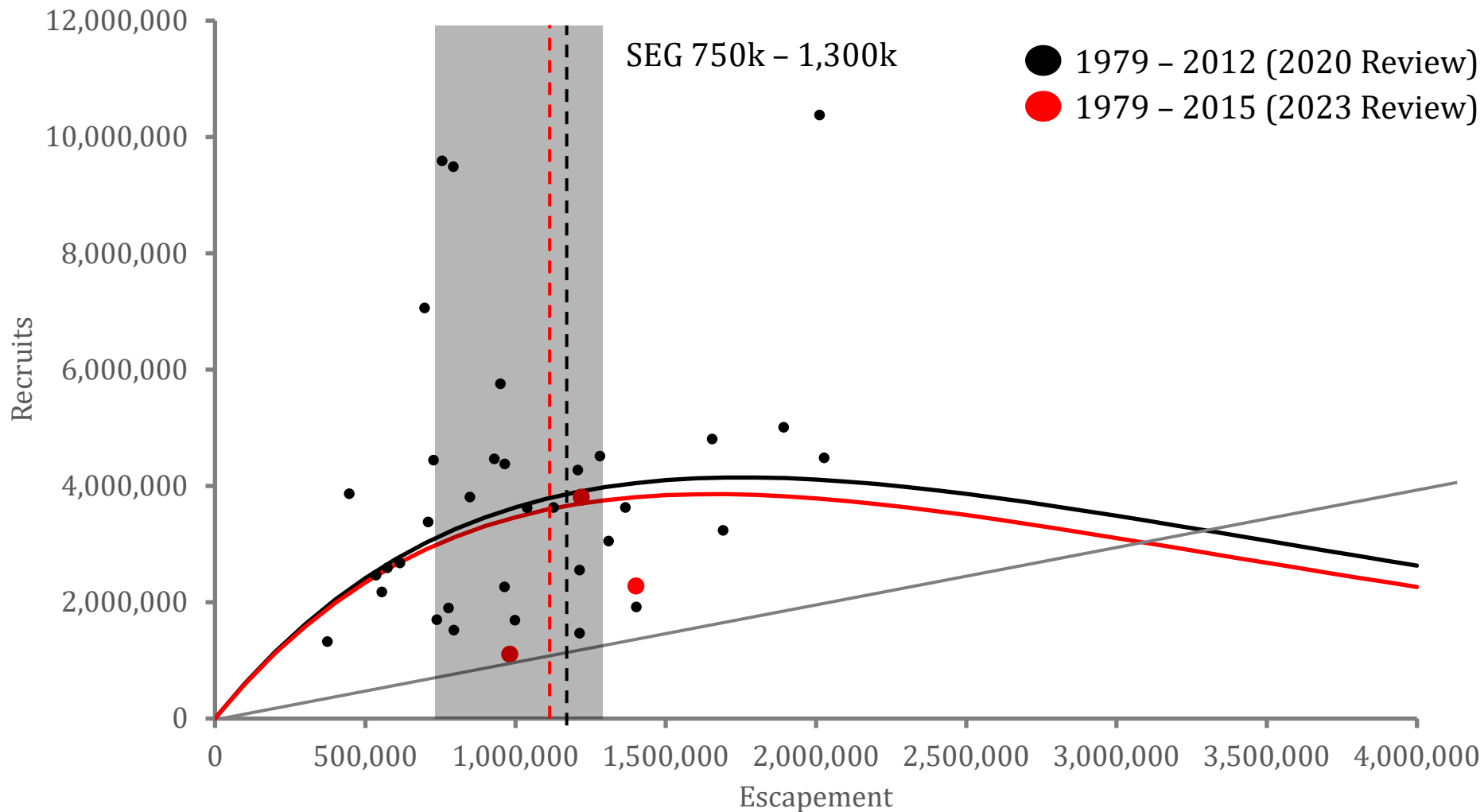


Late-Run Kenai Sockeye Ricker Stock-Recruit





Late-Run Kenai Sockeye Ricker Stock-Recruit

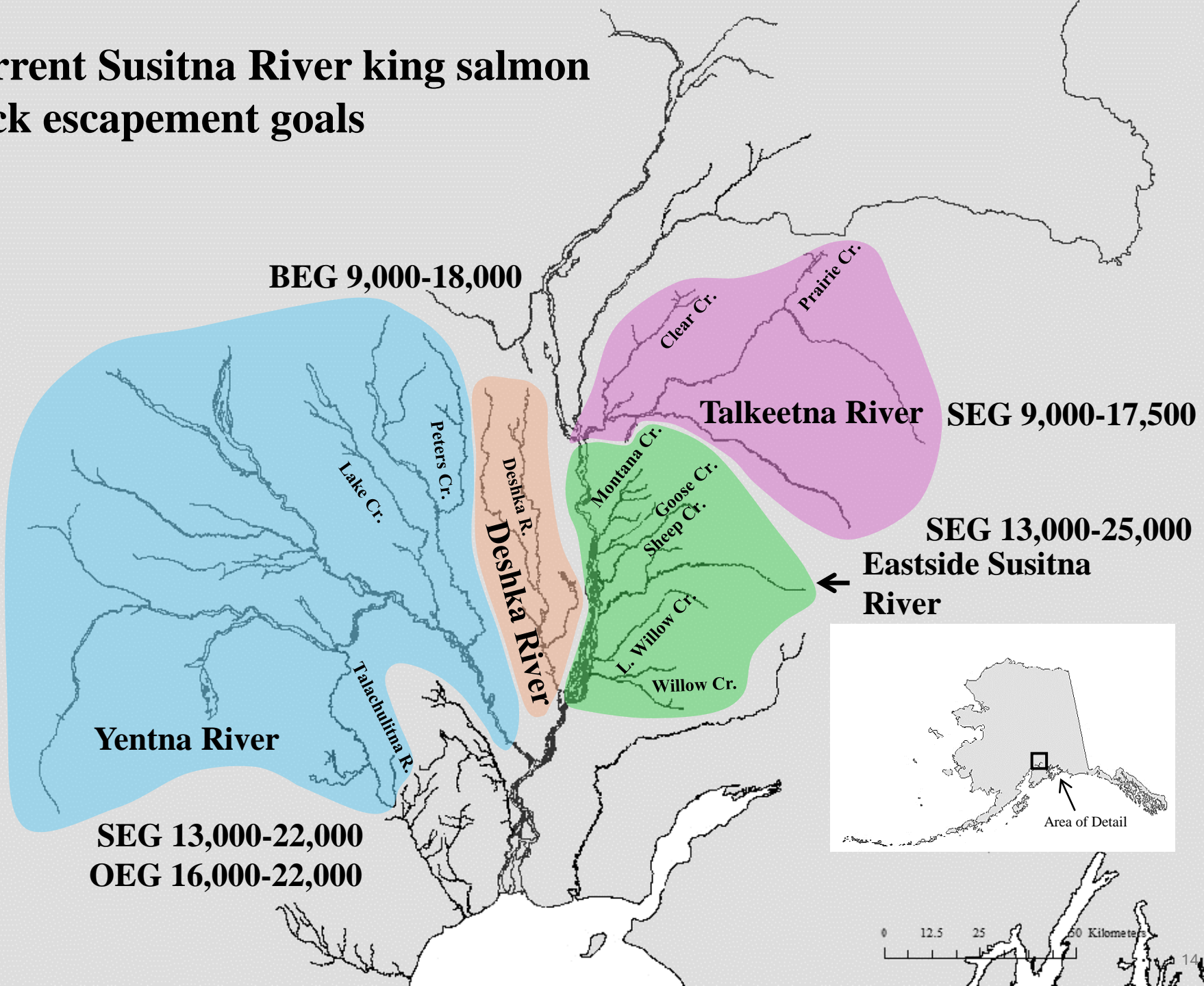




Escapement Goal Review



Current Susitna River king salmon stock escapement goals



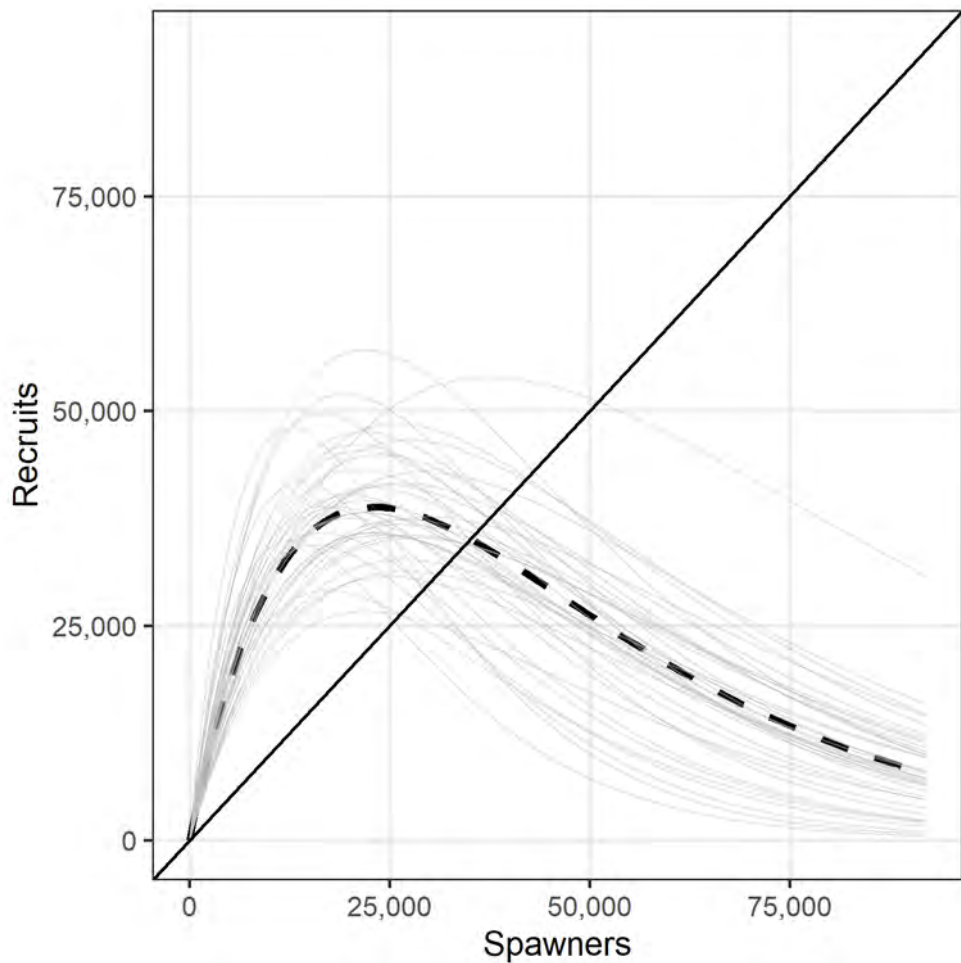


Susitna River King Salmon

Stock-recruit curves

Dashed = Fitted stock-recruit line

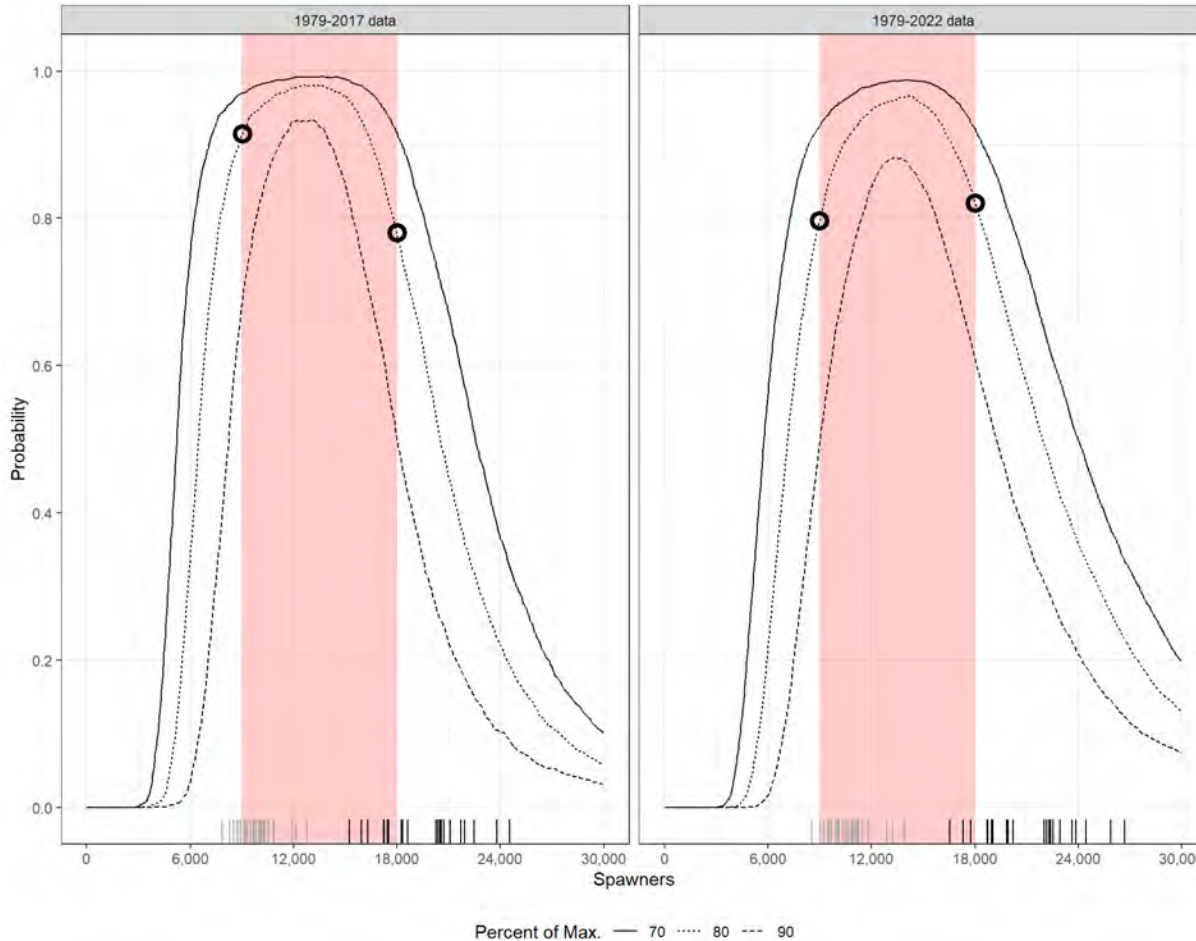
Gray = Plausible stock-recruit lines





Deshka River King Salmon

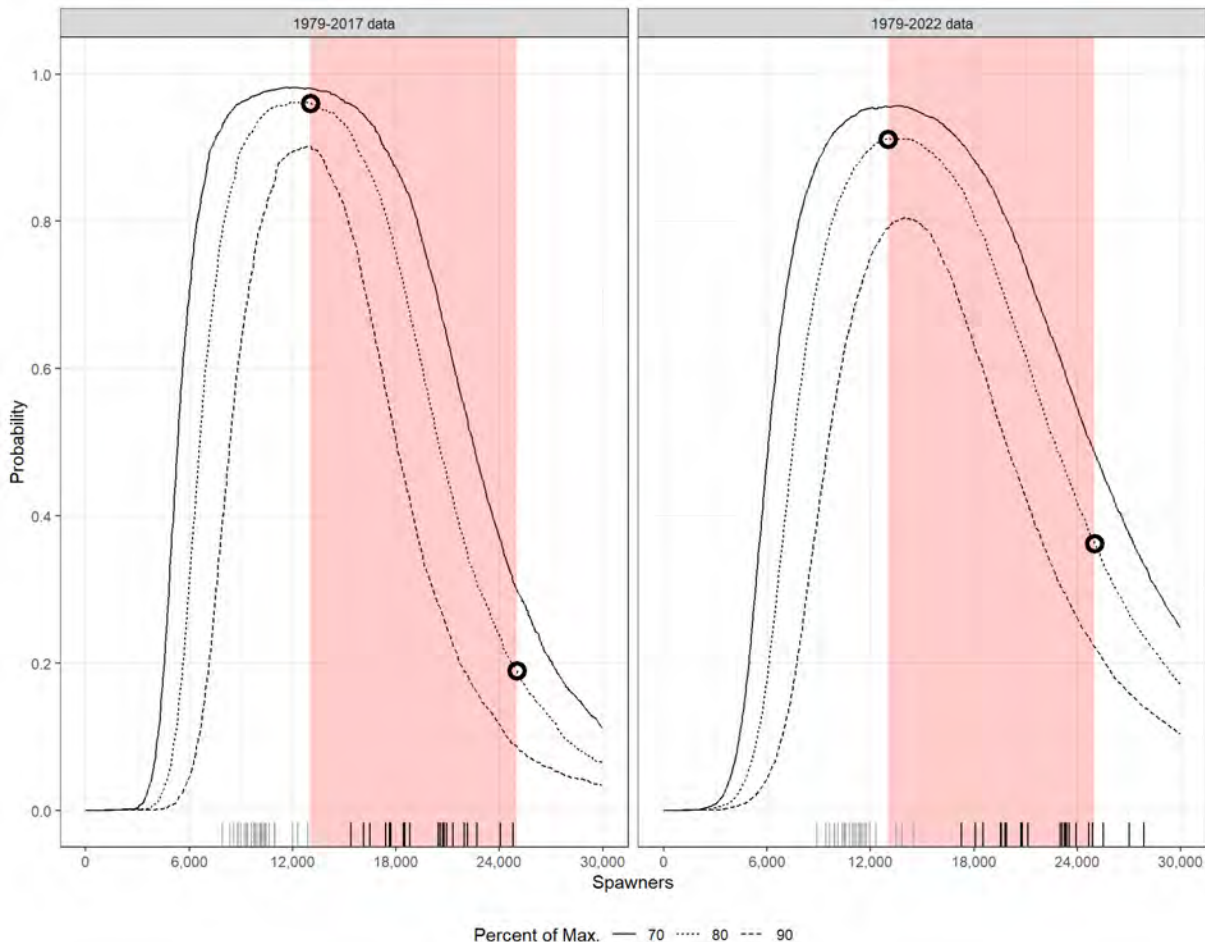
CURRENT BEG: 9,000 – 18,000
Committee findings: No Change





Eastside Susitna River King Salmon

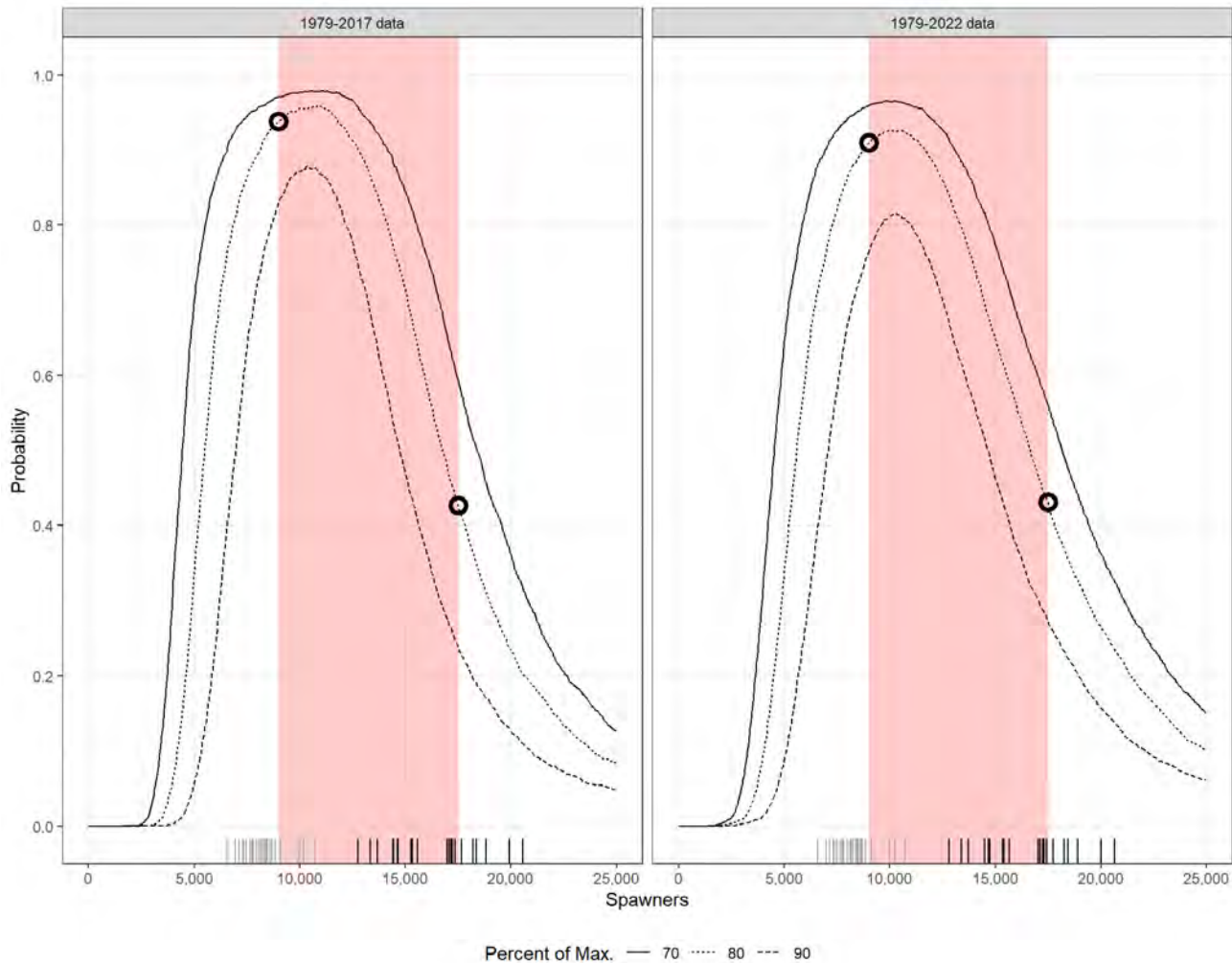
CURRENT SEG: 13,000 – 25,000
Committee findings: No Change





Talkeetna River King Salmon

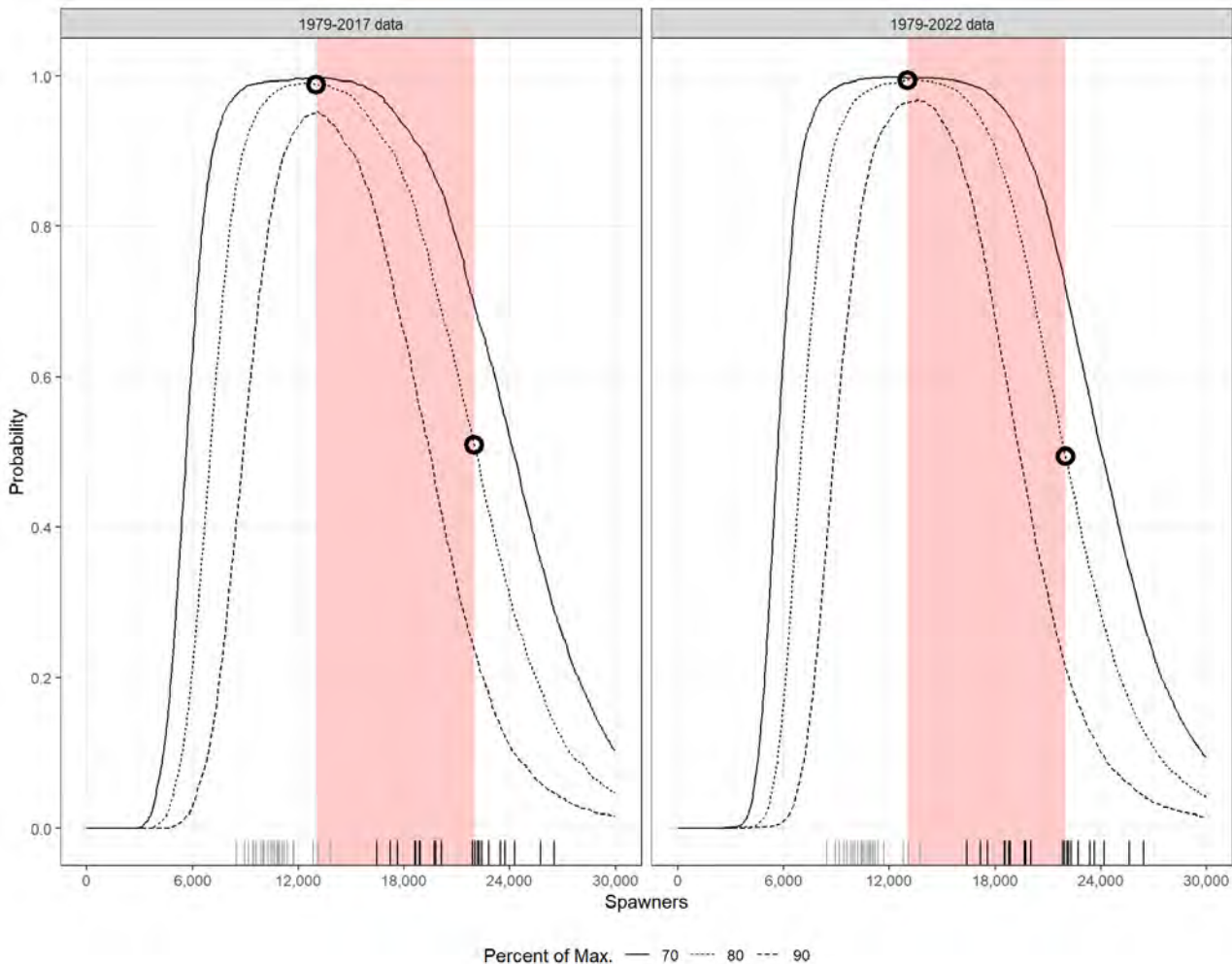
CURRENT SEG: 9,000 – 17,500
Committee findings: No Change





Yentna River King Salmon

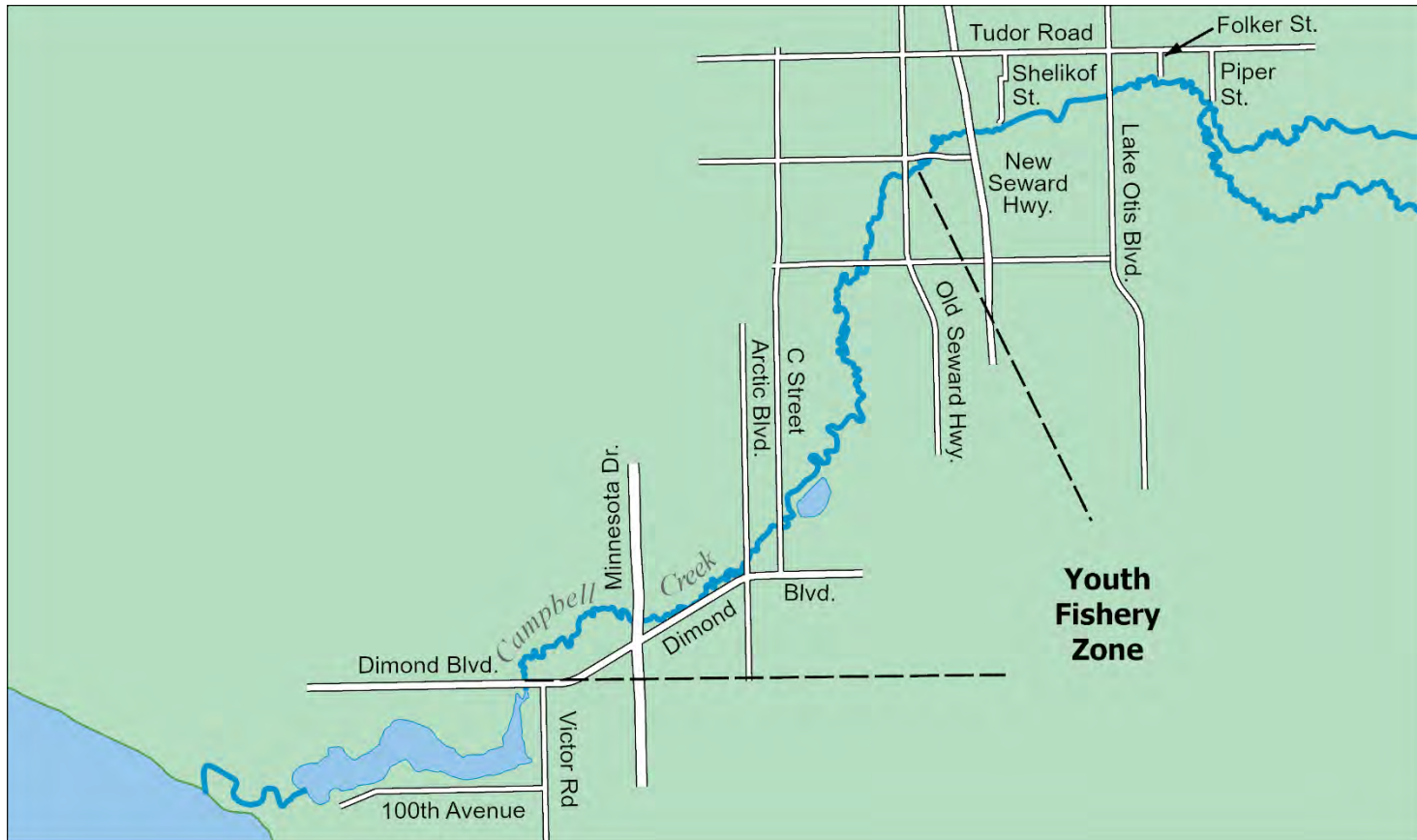
CURRENT SEG: 13,000 – 22,000
Committee findings: No Change





Campbell Creek King Salmon

- Flows thru downtown Anchorage
- The small run of king salmon are surveyed by foot





Campbell Creek King Salmon

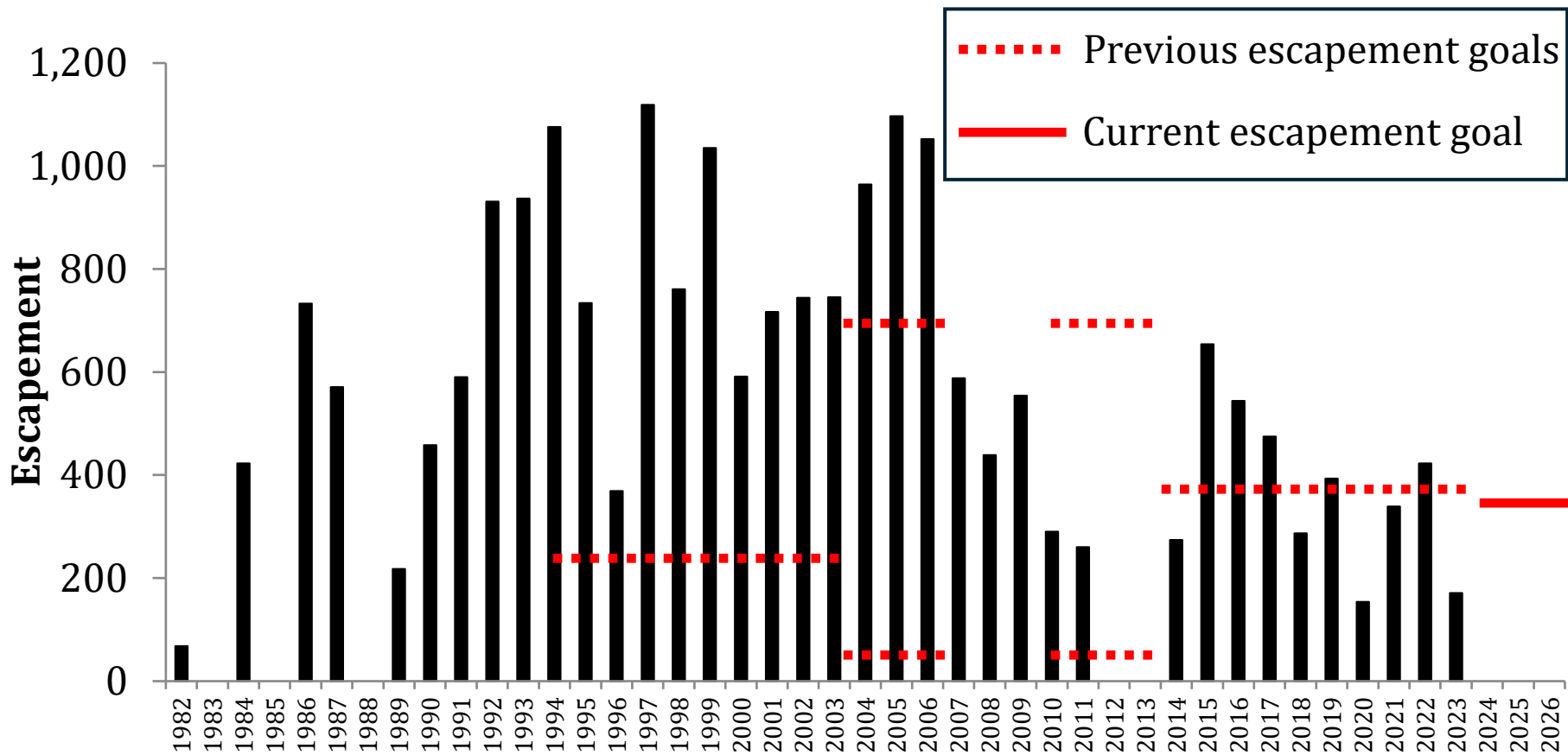
Foot survey lower bound SEG

Previous: 380

Committee findings: 340

DATA: 1982-2022 foot surveys, harvest rate <.40, contrast 16.5

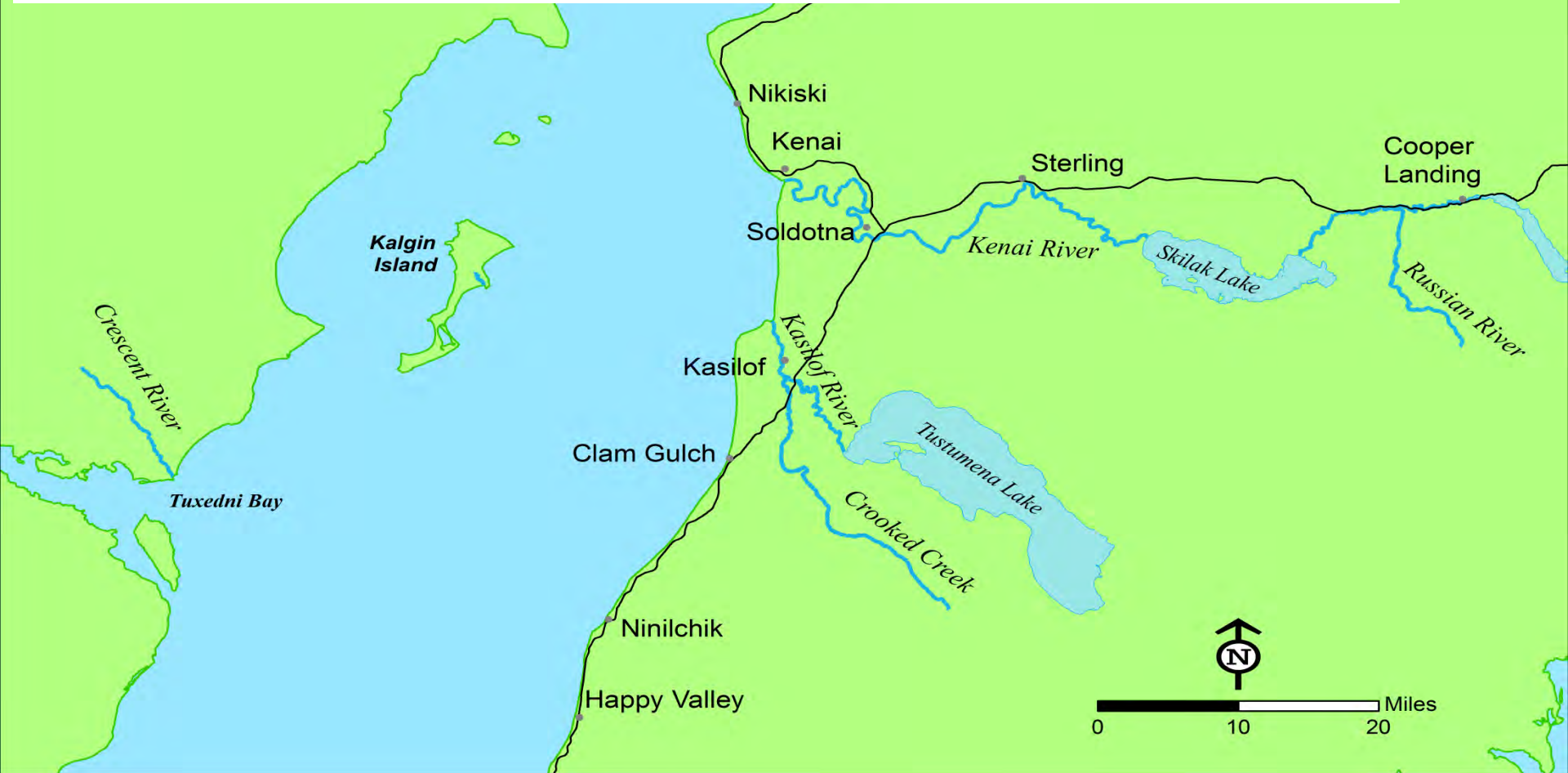
GOAL METHOD: Percentile Approach - Tier-1 (20th percentile)



Early-run Kenai River king salmon

SEG: 2,800 – 5,600 fish ≥ 75 cm mid-eye-to-fork of tail length (2017 - present)

OEG: 3,900 – 6,600 fish ≥ 75 cm mid-eye-to-fork of tail length (2017 - present)

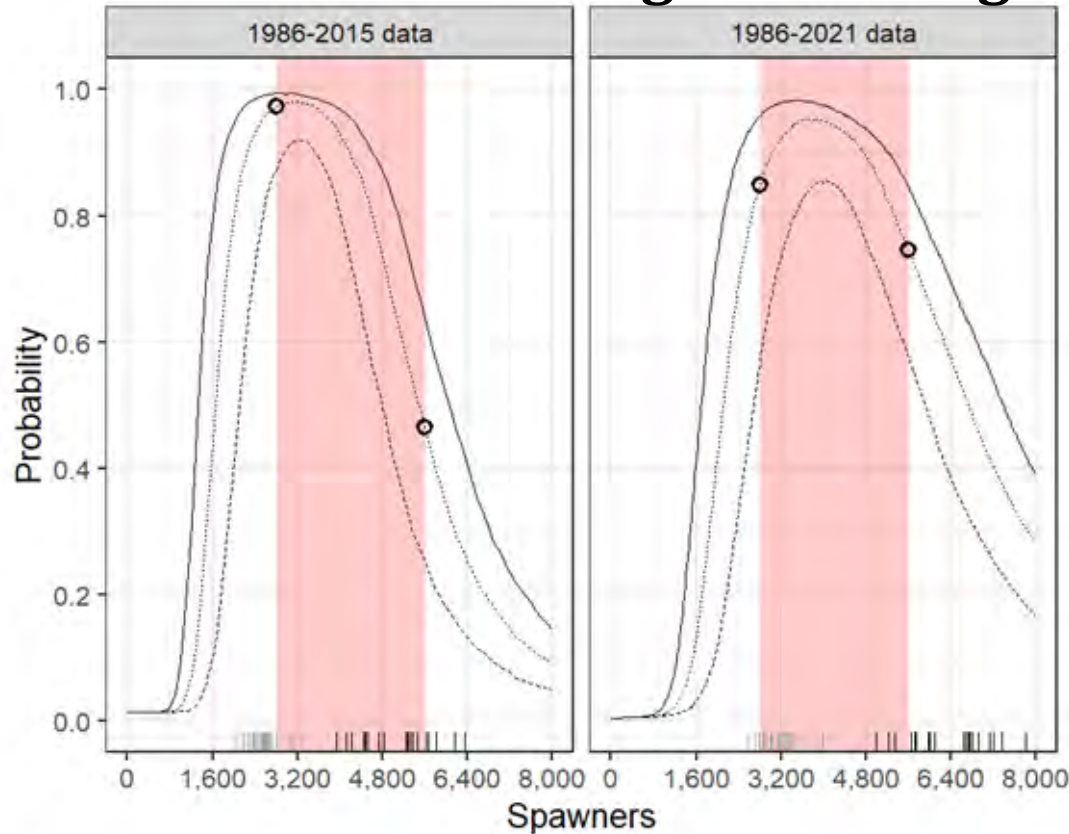




Early-Run Kenai River King Salmon

CURRENT SEG: 2,800 – 5,600

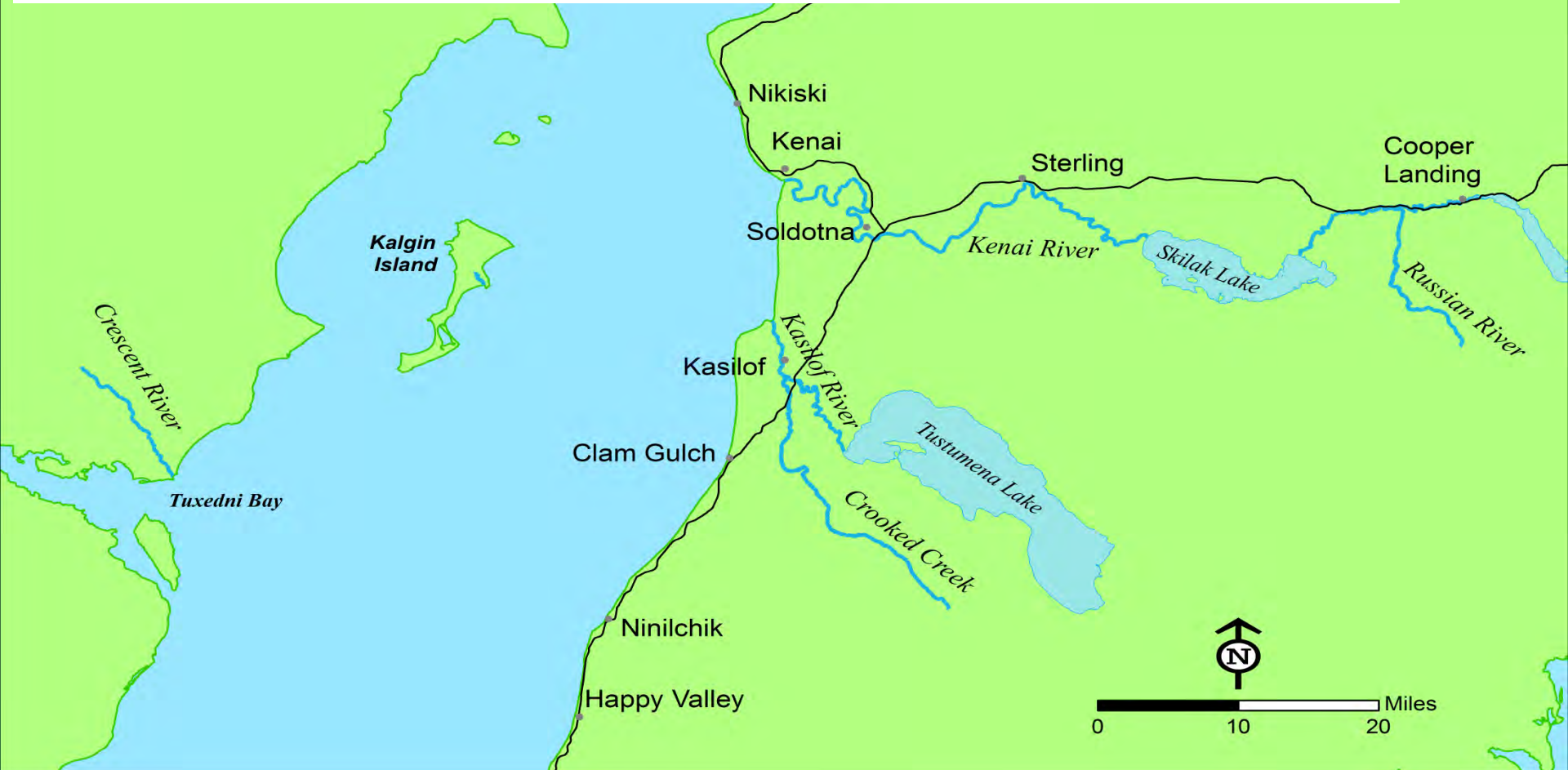
Committee findings: No Change



Late-run Kenai River king salmon

SEG: 13,500 – 27,000 fish \geq 75 cm mid-eye-to-fork of tail length (2017 - present)

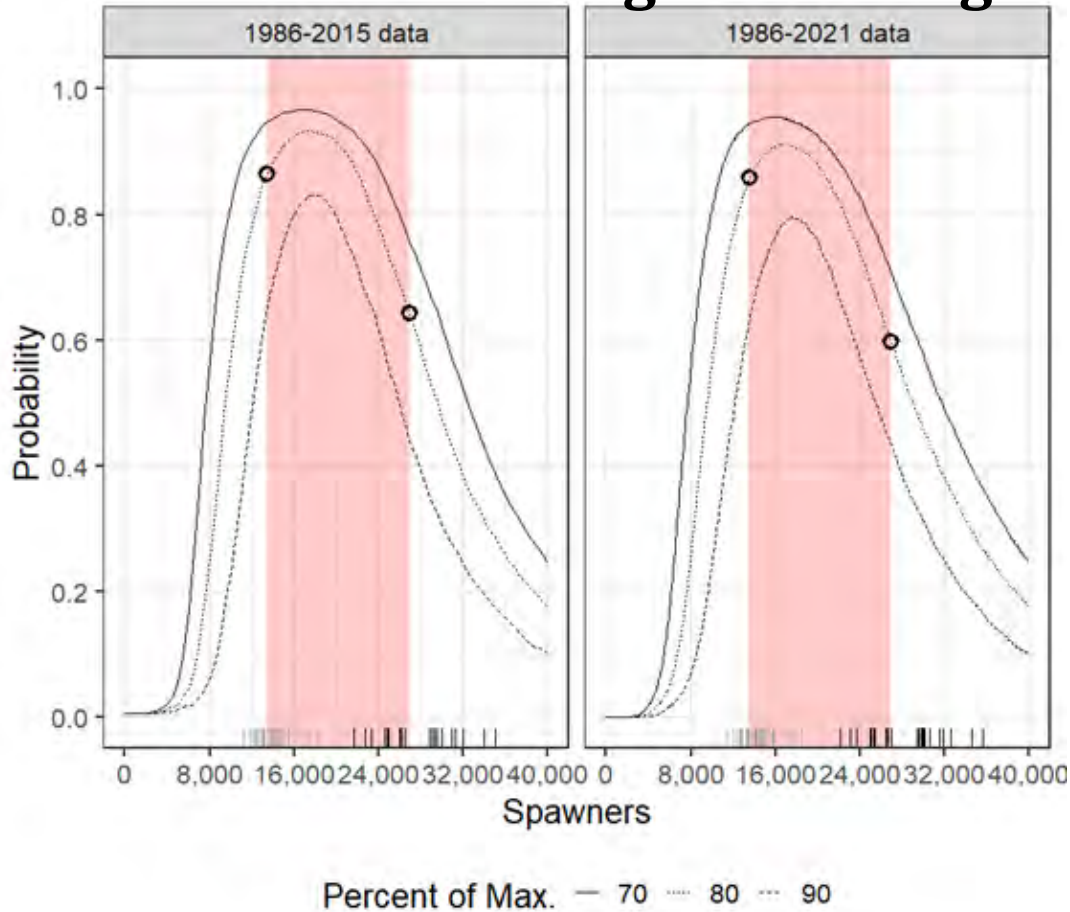
OEG: 15,000 – 30,000 fish \geq 75 cm mid-eye-to-fork of tail length (2020 - present)





Late-Run Kenai River King Salmon

CURRENT SEG: 13,500 – 27,000
Committee findings: No Change





Review Summary

Change to 1 king salmon goal - Campbell Creek king salmon

No changes to 13 king salmon goals

- Alexander Creek
- Chuitna River
- Chulitna River
- Crooked Creek
- Deshka River
- Eastside Susitna
- Kenai River early-run
- Kenai River late-run
- Little Susitna River (aerial)
- Little Susitna River (weir)
- Talkeetna River
- Theodore River
- Yentna River

No change to 1 chum salmon goal

- Clearwater Creek

No changes to 4 coho salmon goals

- Deshka River
- Fish Creek
- Jim Creek
- Little Susitna River

No changes to 9 sockeye goals

- Chelatna Lake
- Fish Creek
- Judd Lake
- Kenai River
- Kasilof River
- Larson Lake
- Packers Creek
- Russian River early-run
- Russian River late-run

Questions?

