

# **Yukon River King Salmon Stock Status and Summer Chum Salmon Fishery**



**AYK Board of Fisheries Meeting  
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Anchorage, Alaska**

**Presented by:  
Holly Carroll**



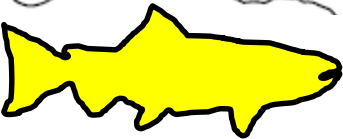
**Yukon Area Management Districts**

This map illustrates the Yukon River and its tributaries, divided into 12 management districts. The districts are categorized into three main areas:

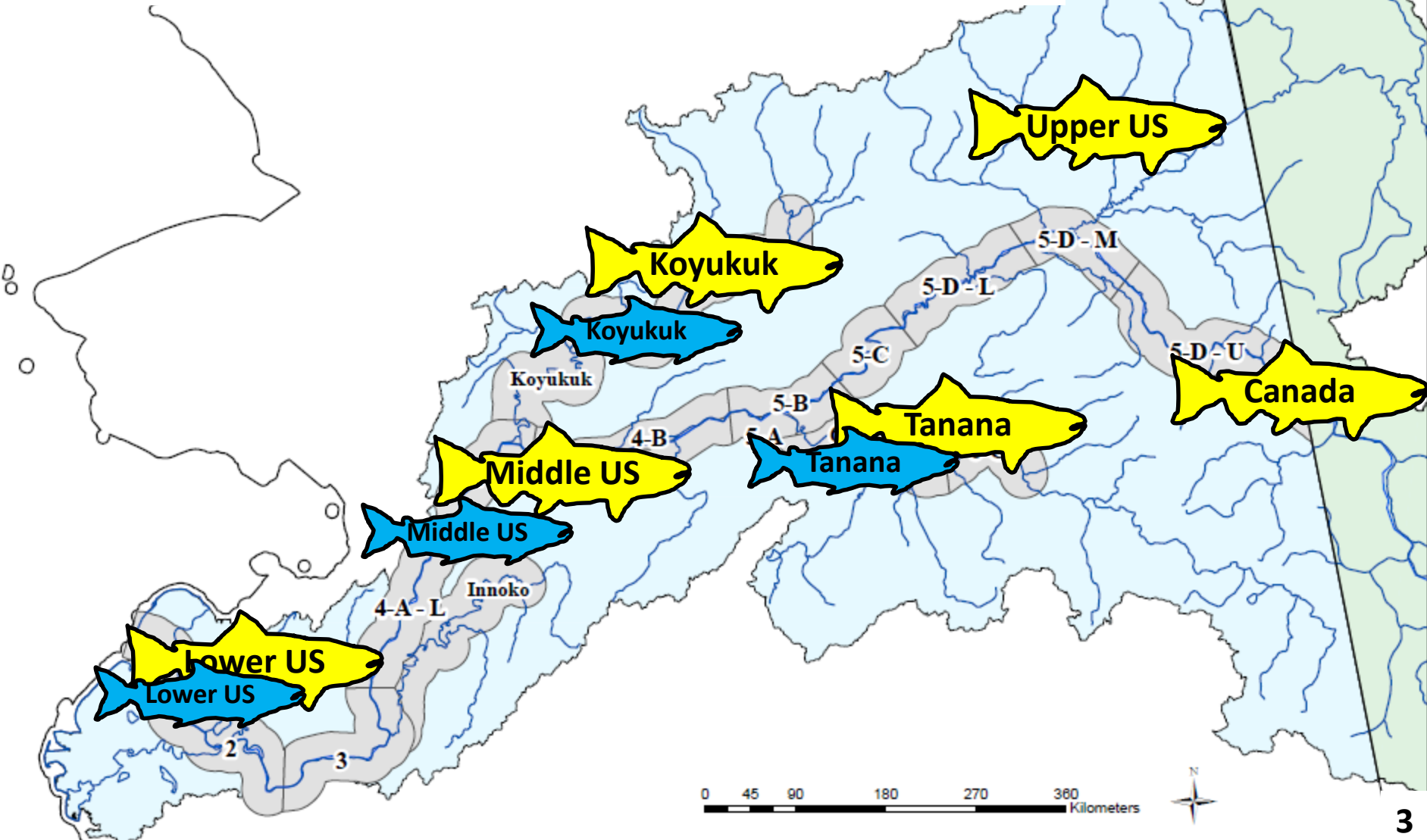
- Coastal District and Lower Yukon Area (Districts 1, 2, 3):** Located in the southwest, this area includes communities like Kotzebue, Nome, Norton Sound, and Fairbanks. District 1 is the northernmost, District 2 is the southernmost, and District 3 is the central part of this area.
- Upper Yukon Area (Districts 4, 5, 6):** This area covers the central and eastern parts of the Yukon River. It is further divided into sub-districts:
  - District 4:** Divided into 4-A, 4-B, and 4-C.
  - District 5:** Divided into 5-A, 5-B, 5-C, and 5-D.
  - District 6:** Divided into 6-A, 6-B, 6-C, and 6-D.

Key communities and points of interest are marked with black dots and triangles, respectively. The map also shows the Alaska-Canada border and the location of the study area within Alaska.

King salmon stocks



Summer chum salmon stocks



# King salmon preseason outlook and management planning

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- Joint Technical Committee (advising Yukon River Panel) creates forecast (outlook) using a combination of models for Canadian-origin king stock
- Drainagewide king outlook created using average stock proportion
- Preseason management strategy reviewed at public meeting
- Strategy adjusted inseason based on run assessment



# Inseason Management Communication

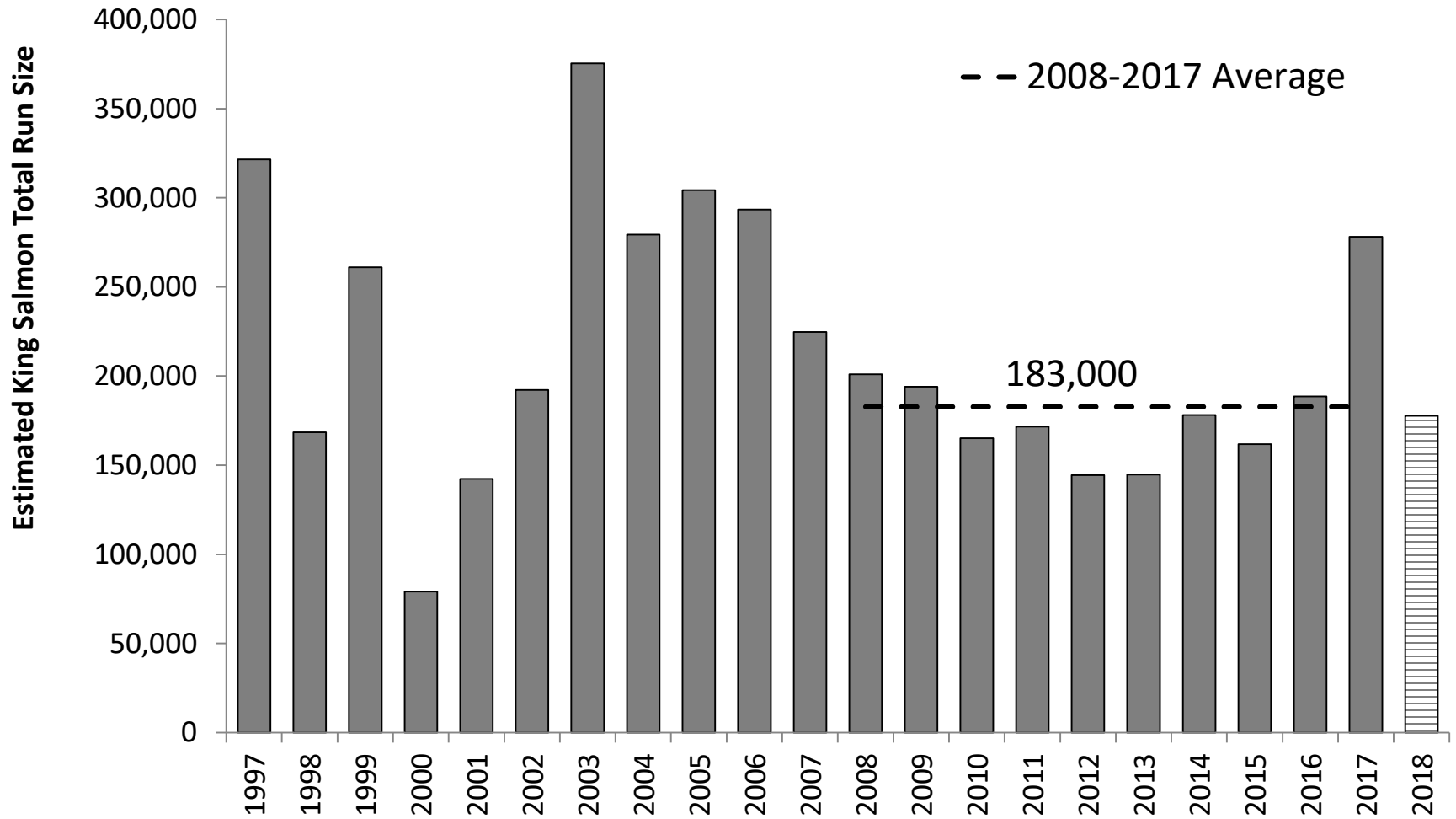
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- Yukon households mailed the outlook flier
- Weekly river-wide teleconferences (YRDFA)
- Consultation with Yukon River Inter-tribal Fish Commission
- In-person meetings within communities
- Facebook posts of daily counts and news releases
- Toll-free hotline with fishing schedules



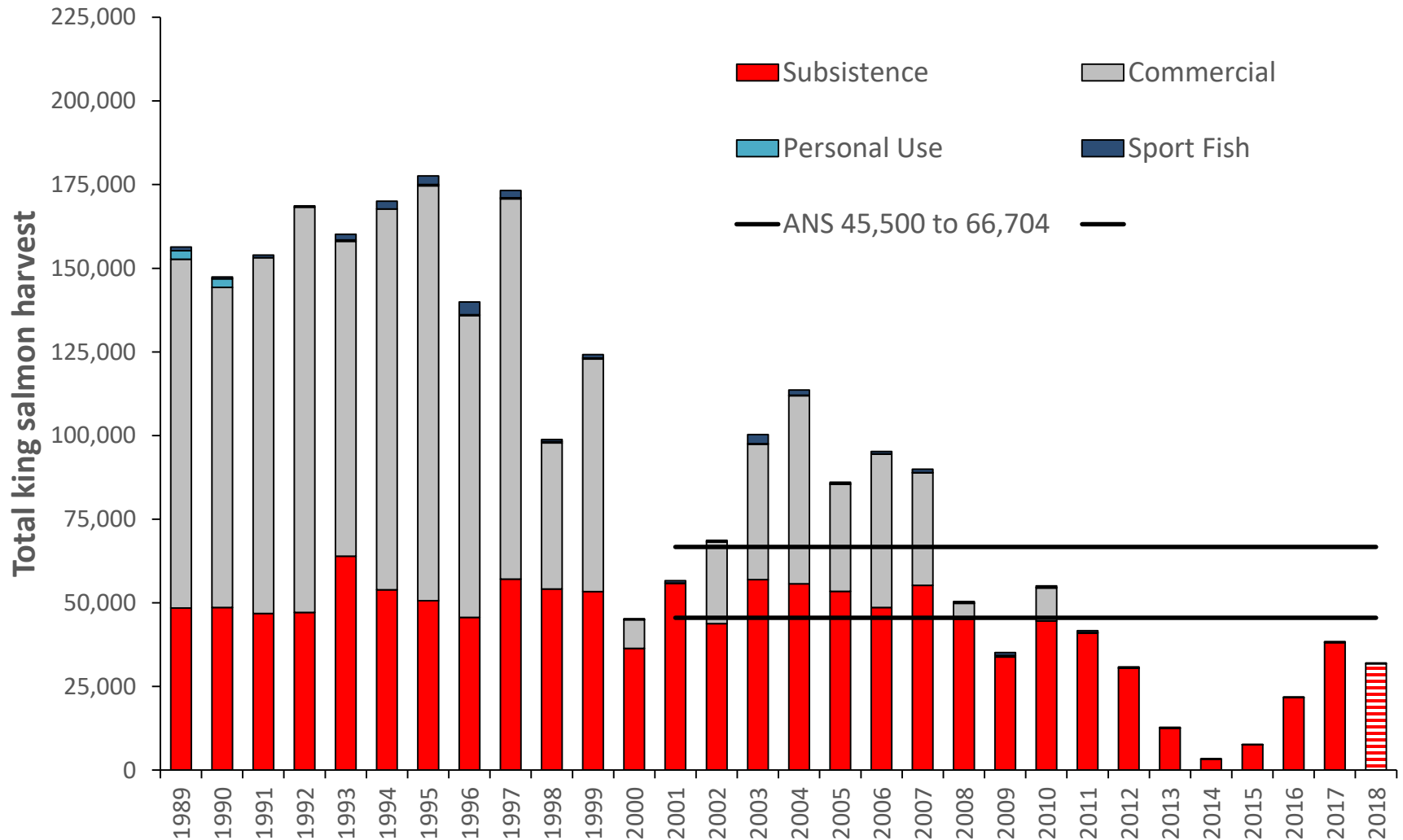
Grayling, 2017

# King salmon drainagewide run



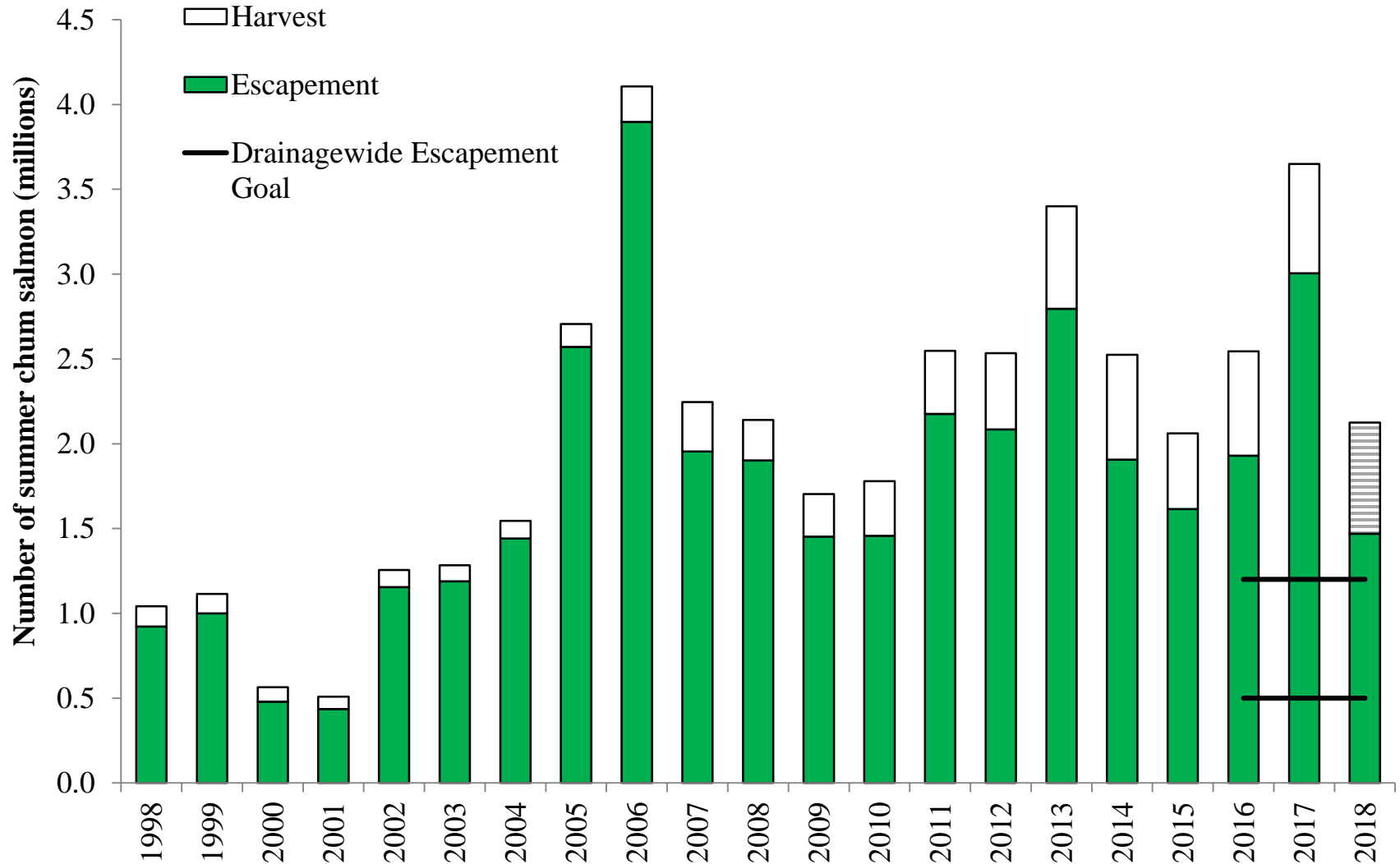
\*2018 Data preliminary

# King salmon harvest - Alaska



\*2018 Data preliminary

# Summer chum salmon total run showing harvest



\*2018 Data preliminary



# Management challenges: commercial fishery

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- Harvesting full commercial surplus of summer chum while conserving kings





# Recent management tools

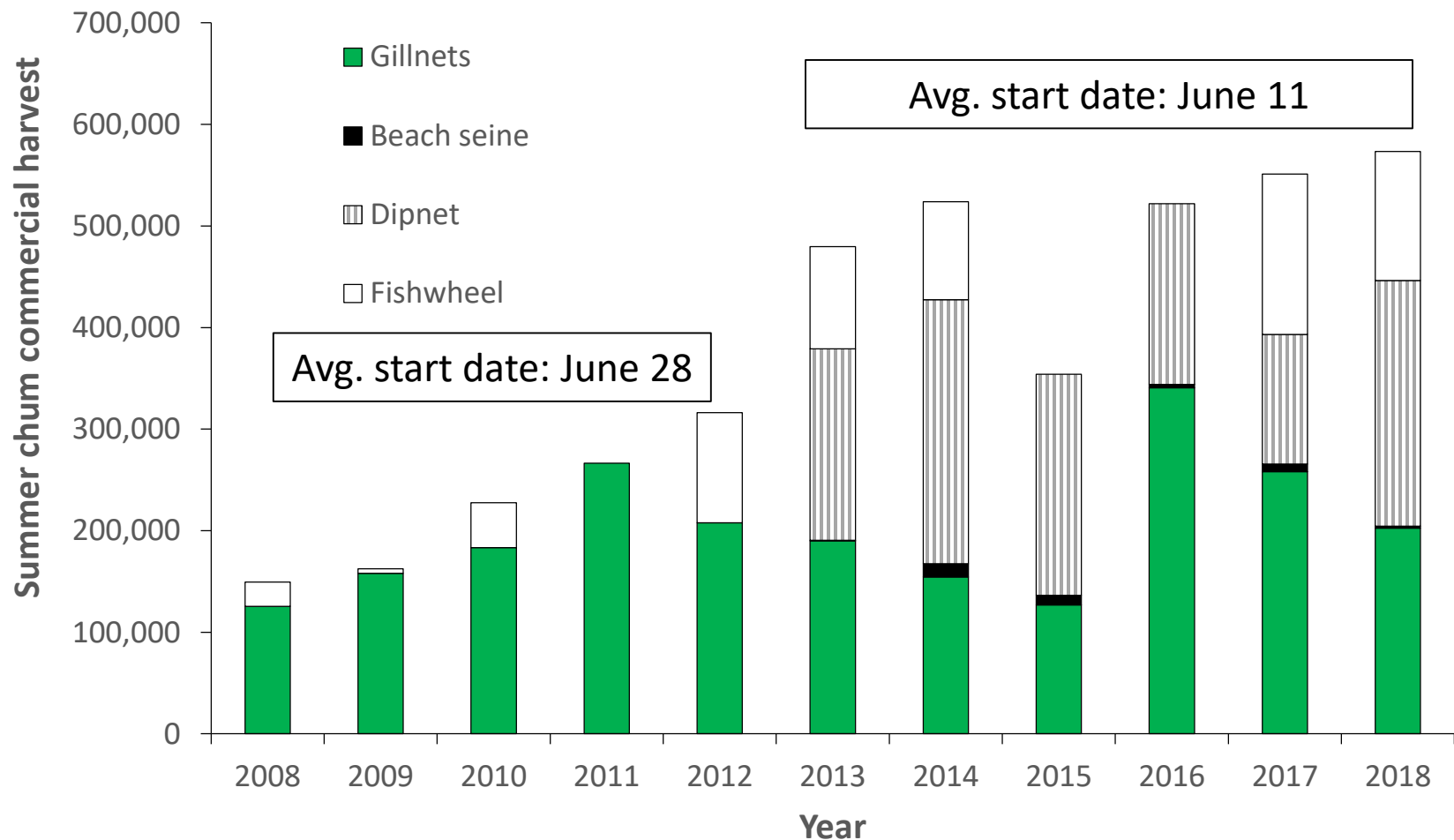
“Selective gear” to harvest summer chum salmon and release king salmon:

- Dip nets
- Beach seines
- Live-release fish wheels



# Summer chum commercial fishery

Comparison of harvest from selective gear vs. gillnets





# Management challenges: subsistence fishery

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- Restrict subsistence harvest in order to meet escapement goals
- Provide fish past border for Canadian harvest share
- Spread harvest across all stocks present
- Harvest the full available surplus in Alaska
  - Limited by assessment



# King salmon escapement goals- Alaska stocks

Goal exceeded

Goal met

	<i>Goal</i>	2014	2015	2016	2017	2018
Chena R. (tower)	2,800-5,700	7,191	6,294	6,665	4,201	4,277
Salcha R. (tower)	3,300-6,500		6,288	2,675	4,195	4,053
E.F. Andreafsky (weir)	2,100-4,900	5,949	5,474	2,676	2,970	3,972
W.F. Andreafsky (aerial)	640-1,600	1,695	1,356		942	455
Anvik R. (aerial)	1,100-1,700	1,051	2,487		1,080	1,109
Nulato R. (aerial)	940-1,900		1,564		943	870

\*2018 Data preliminary

# Canadian-origin king salmon border objectives

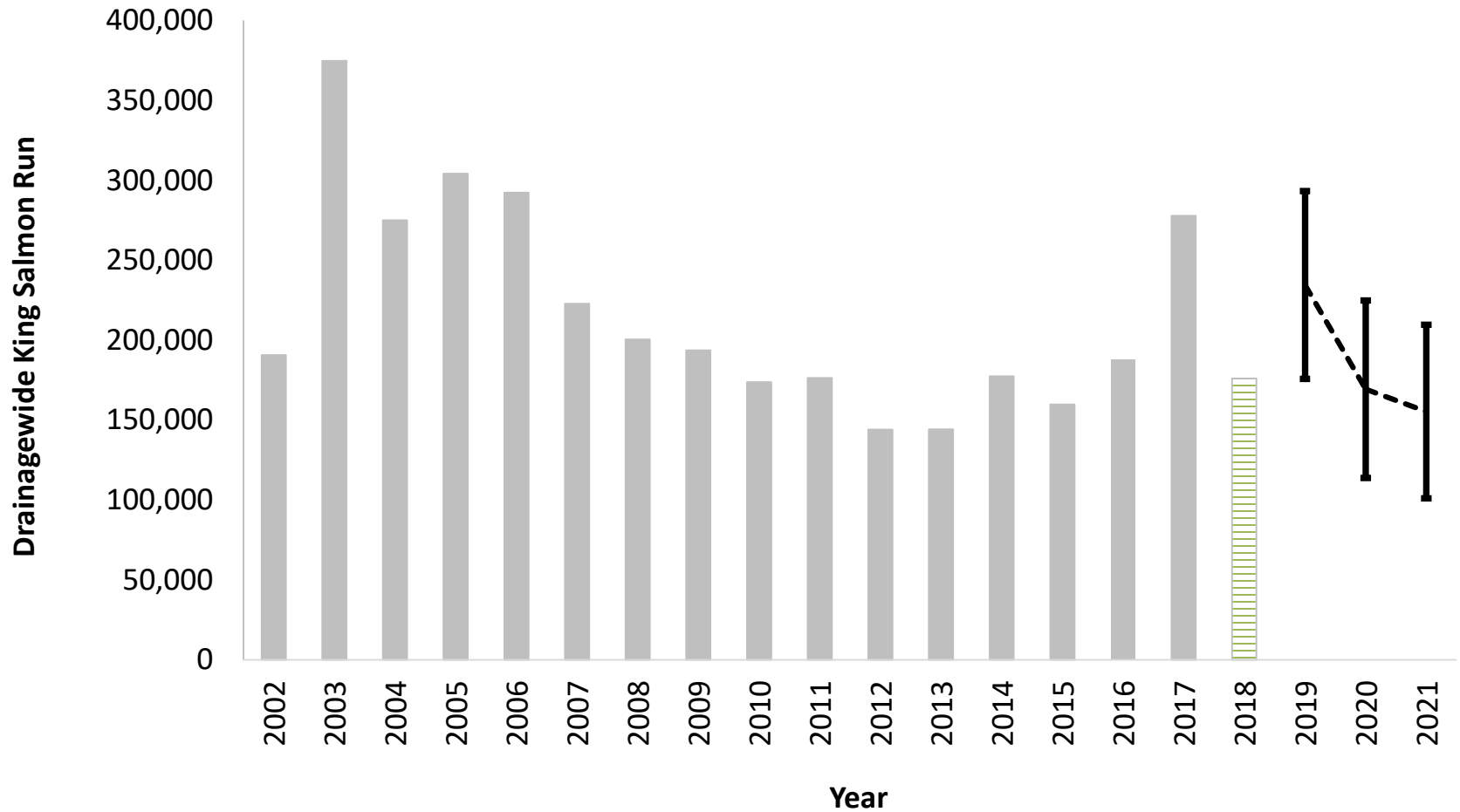
	<i>Goal</i>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Interim Management Escapement Goal (IMEG)</b>	<i>42,500-55,000</i>	Exceeded	Exceeded	Exceeded	Exceeded	Exceeded
<b>Canadian harvest share</b>	<i>20%-26% of TAC</i>	More than 26% provided	More than 26% provided	More than 26% provided	More than 26% provided	Within Range
<b>U.S. harvest share</b>	<i>74%-80 % of TAC</i>	Less than 74% taken	Less than 74% taken	Less than 74% taken	Less than 74% taken	Harvest within range

**Total Allowable Catch= TAC, varies annually based on post-season run size**

\*2018 Data preliminary



# Bering Sea juvenile-based king salmon outlook



\*2018 Data preliminary

# King salmon harvest and escapement summary

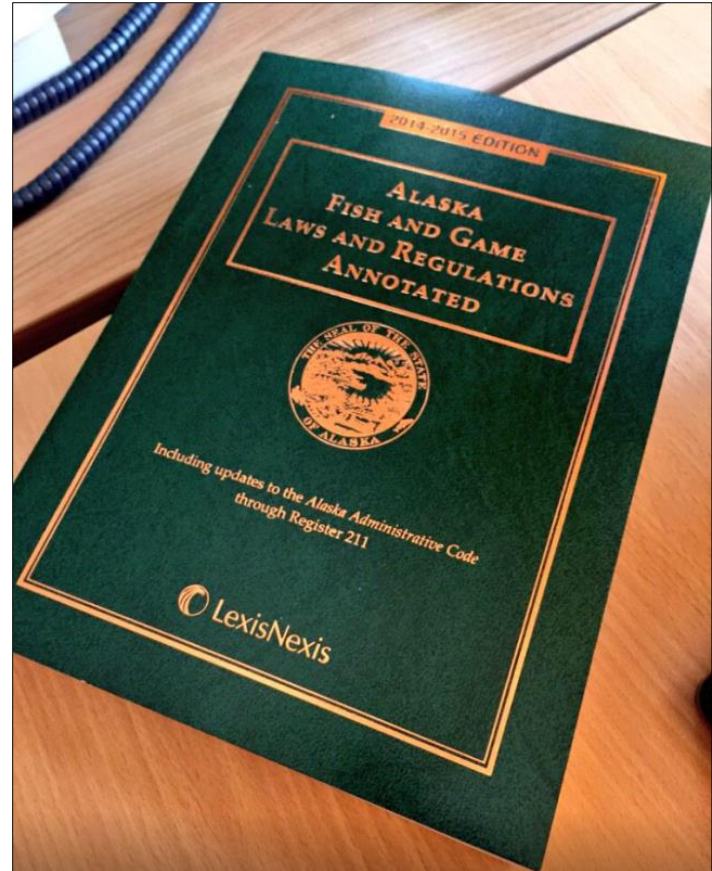
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- King salmon harvests have been below ANS since 2009
- Escapement goals generally met from 2014-2018
- Management tools sufficient to limit harvest, spread harvest across run/stocks
- Utilizing *full* U.S. harvest share challenging due to inseason management uncertainty
- Data from juvenile surveys in the Bering Sea suggests continued low returns

**Recommend to continue king salmon stock of yield concern**

# 2019 king and summer chum salmon proposals

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# 2019 proposals: restrictions to gear or opportunity

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- **Proposals 92, 98, 100** : restrict max mesh size and depth for gillnets and limit fishwheel baskets in upper river districts
- **Proposal 97**: divide District 2 into two subdistricts
- **Proposal 88**: make kings bypass live box on fish wheels





# 2019 proposals: selective gear

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- **Proposals 89 and 99**: allow retention of king salmon in dip nets and beach seines
- **Proposal 86**: allow hook and line to harvest non-salmon in part of District 4



# 2019 proposals: Increase opportunity

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- **Proposal 87**: Allow drift gillnets in all districts
- **Proposals 90 and 91**: reduce subsistence closures around commercial periods
- **Proposal 93**: repeal requirement to mark subsistence-caught king salmon
- **Proposal 94**: allow taking of first king salmon for religious purposes





# Acknowledgements

