Task Force Mission Statement

The Mission of this task force is to identify a set of recommended adjustments to the Kenai River Late-Run King Salmon Management Plan (5AAC 21.359) that would result in the best mix of in-river (sport, guided sport, personal use) and Upper Subdistrict set gillnet fishing opportunity while providing the best means of attaining the escapement goal for Kenai River late-run Chinook Salmon during times of low King Salmon abundance as experienced in the 2012 season.

Goals

A: Explain the diversity of Set Net Beaches.

B: Define the status of the late run Kenai Chinook in regards to conservation.

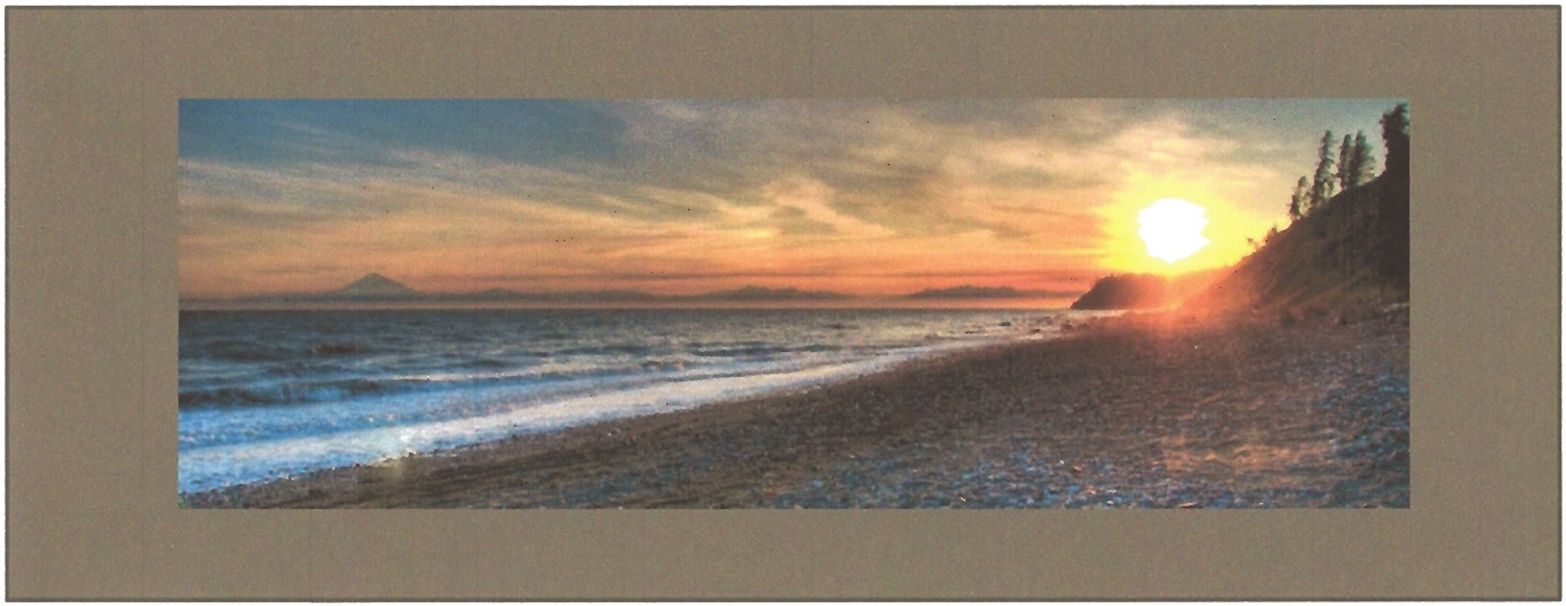
C: Explore the management conflict between Sockeye & Chinook and to achieve a balance.

D: Propose changes to the late run Kenai River Chinook salmon management plan.

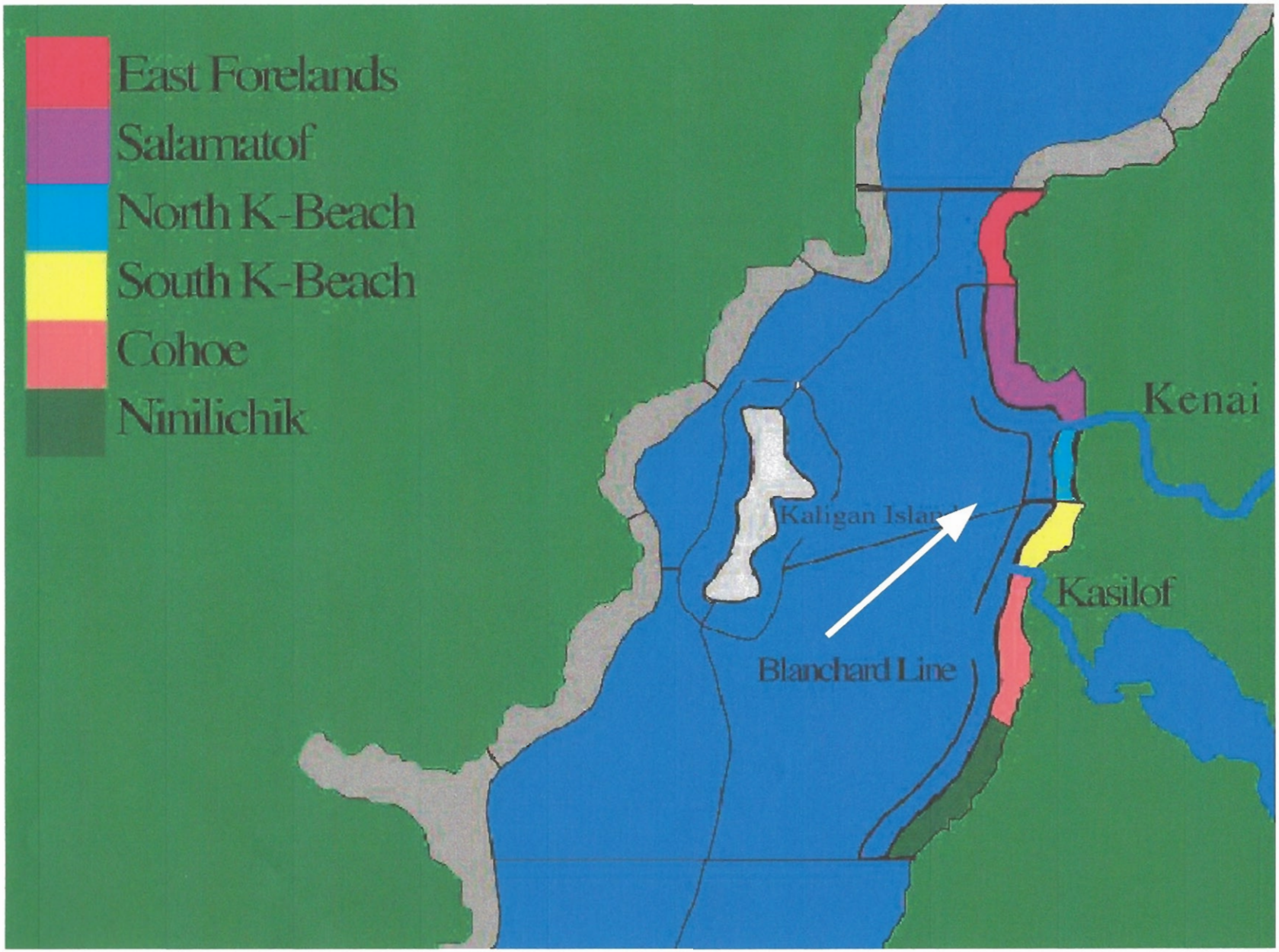
ESSN Proposal to Task Force

Goal A:

The Diversity of **ESSN Beaches**



ESSN Locations



Diversity of ESSN Beaches

- ESSN Beaches span nearly 100 miles.
- Beaches are managed for the Kasilof River and the Kenai River.
- It is a 5-7 week fishing season depending on beach location. Two regular 12 hour periods per week.
- Additional hours per week based on sockeye abundance.
- North of Blanchard line has a later start date (July 8) to allow Kings into the Kenai River.
- Net locations range from beach to:
  1.5 nautical miles S of Kenai River
  1 nautical mile N of Kenai River
- There is a tidal swing of 25 feet amongst all the different beaches.
- 6 Knot Currents
- 448 Permits on ESSN Beaches.

Goal B:

Define the status of the Late Run Kenai Chinook in regards to

'conservation concern'

Escapement Goals

SEG

Sustainable Escapement Goal is an estimate based on historical performance and other factors. SEG is meant to conserve stock over a five to 10 year period. It is used in situations where a biological escapement goal cannot be estimated because there is no stock-specific catch information. The sustainable escapement goal is the primary management objective for escapement. SEG is used unless an optimal escapement (OEG) or in-river run goal has been adopted by the BOF. SEG is developed by ADF&G using biological data.

OEG

Optimum Escapement Goal allows for sustainable runs based on biological needs of the stock and ensures healthy returns for all user groups. Optimum escapement goals are set by the BOF. OEG is a management objective that considers biological and allocative factors. OEG is set by BOF.

SET

Sustained Escapement Threshold is a limit of escapement. Salmon stocks that are not able to sustain above this level are considered jeopardized. SET is lower than the lower bound of the BEG (Biological Escapement Goal) and lower than the lower bound of the SEG (Sustainable Escapement Goal. The SET is established by the department in consultation with the board, as needed, for salmon stock of management or conservation concern.

Levels of Concern

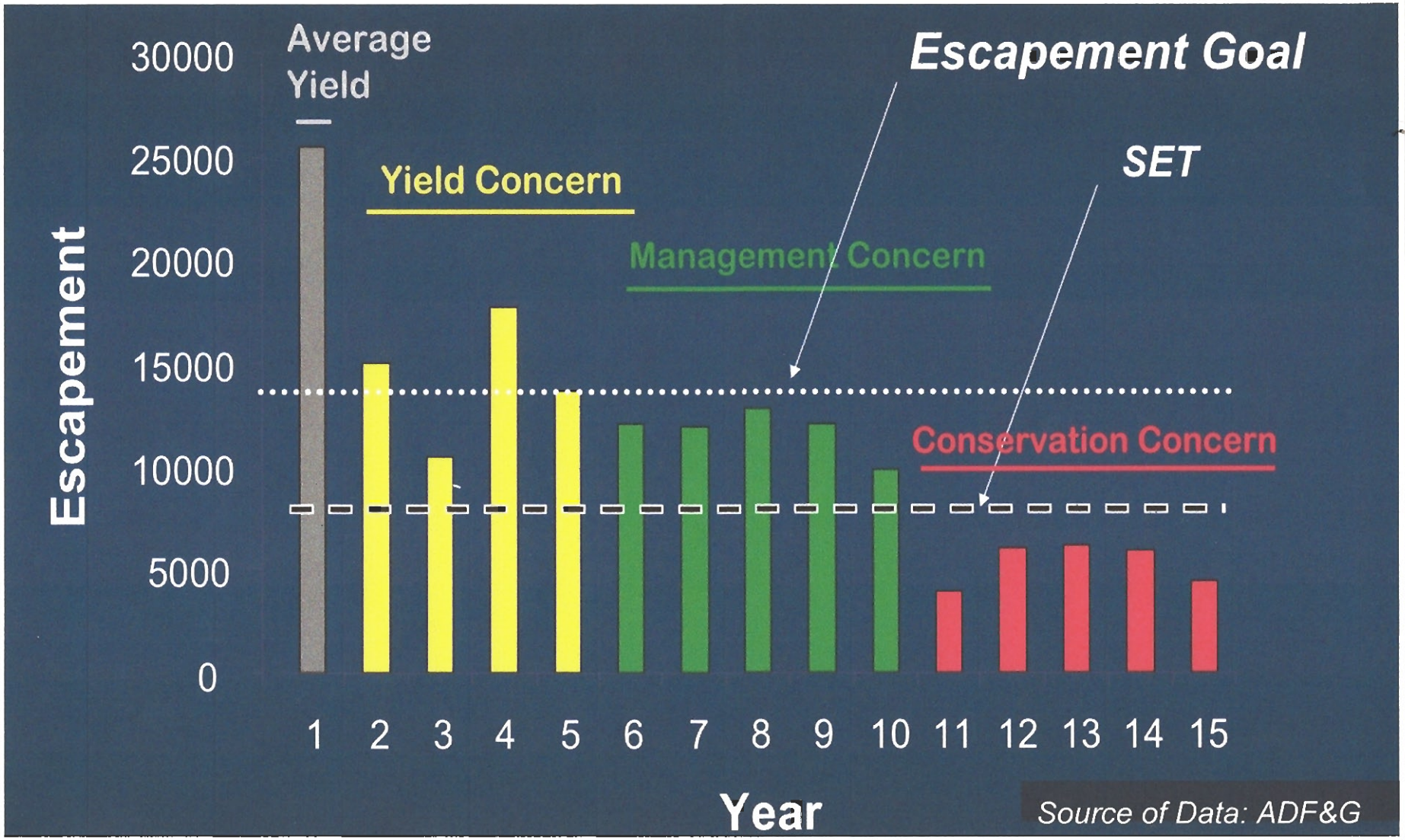
Yield Concern results from a ***chronic inability*** to maintain yields or harvestable surplus above escapement needs.

Management Concern results from a ***chronic inability*** to maintain escapements within the bounds of a BEG, SEG, or OEG.

Conservation Concern results from a ***chronic inability*** to maintain escapement above a sustainable escapement threshold (SET).

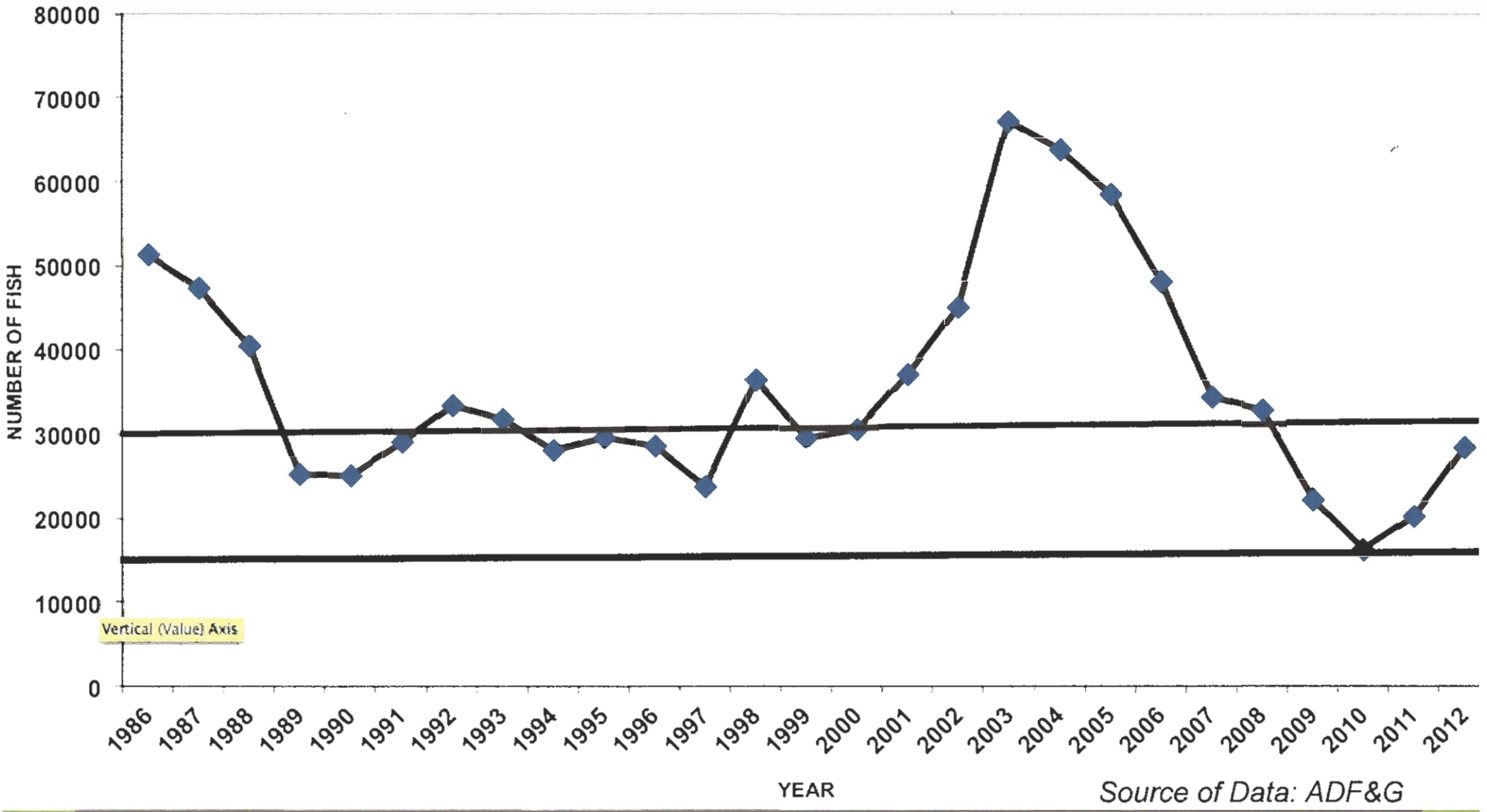
****chronic inability*** continuing or anticipated inability to meet escapement threshold (goals) over 4-5 year period (generation time of most spp.) despite use of specific management measures.

Graphical Representation (NOT Actual Data)



*chronic inability continuing or anticipated inability to meet escapement threshold (goals) over 4-5 year period (generation time of most spp.) despite use of specific management measures.

Late Run Kenai River Chinook Salmon Spawners

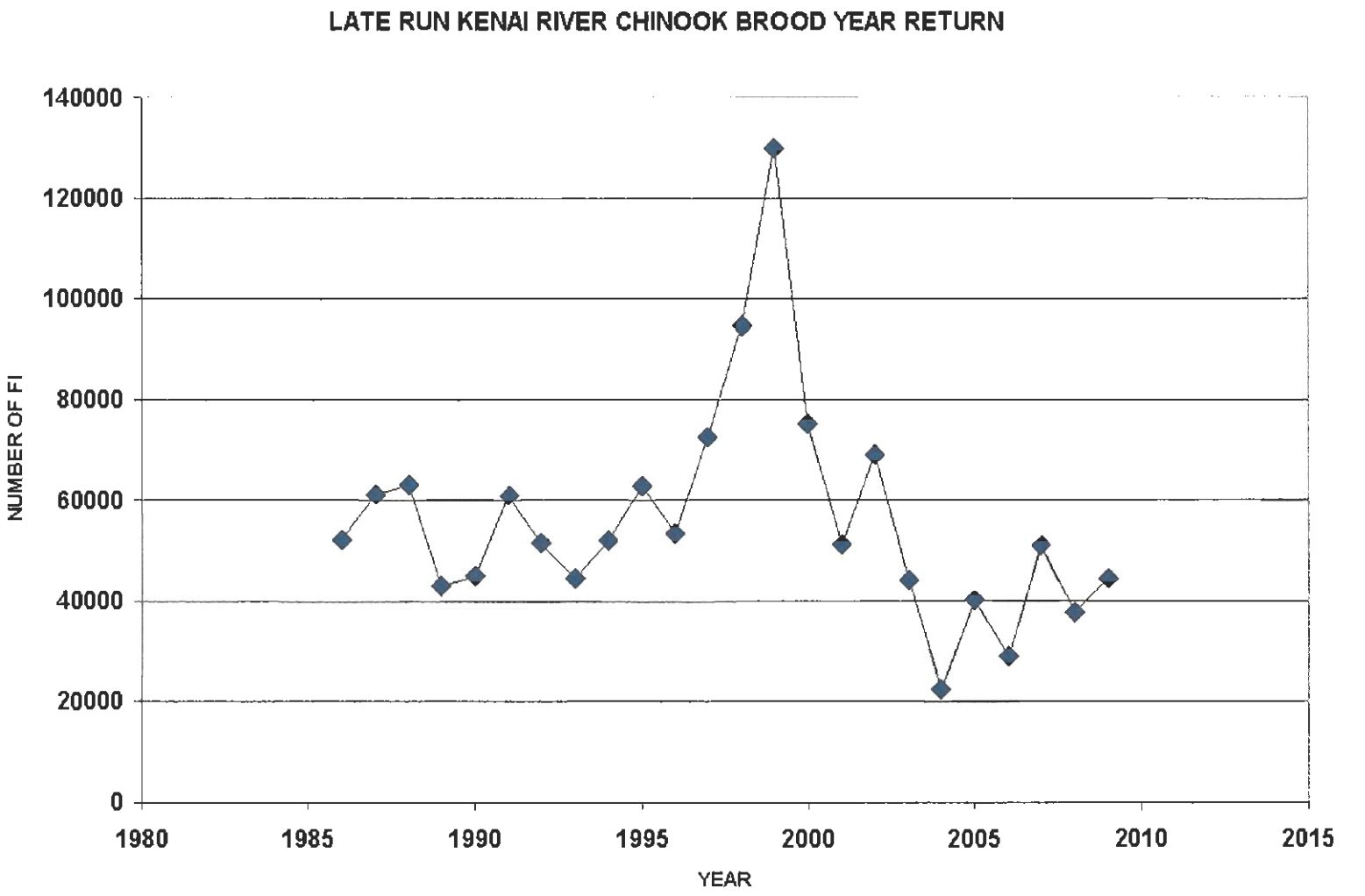


Source of Data: ADF&G

Kenai River Late Run Chinook **have** met their Escapement Goal for the past 26 years.

There is NO CONSERVATION CONCERN.

Brood Year Return



Source of Data: ADF&G

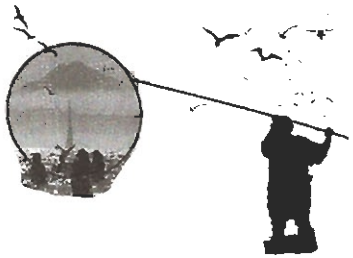
Exploitation Rate

Average Annual Exploitation Rate on Kenai River Late Run Chinook

39%

ESSN

13%



Other User Groups

26%

Source of Data: ADF&G

Goal C:

To explore the
management conflict
between sockeye & chinook and to achieve a balance within this conflict.

Framing the Issue

What is the problem today?

*There is a **Management Conflict** between Sockeye & Chinook management plans. Both plans direct ADF&G to meet escapement goals for sustained yield management.*

5AAC 21. 365 Kasilof River Salmon Management Plan

5AAC 21. 360 Kenai River Late - Run Sockeye Salmon Management Plan

5AAC 21. 359 Kenai River Late - Run King Salmon Management Plan

Trade-off

Chinook

Sockeye

Sport Fisherman
-379 Registered Guides
-Private Anglers

Economic
-Local businesses
-Tourism

Personal Use
-100,000 Alaskan Residents

Subsistence
-9 Native Tribes

Commercial
-1305 UCI Permits
- 5000 Jobs

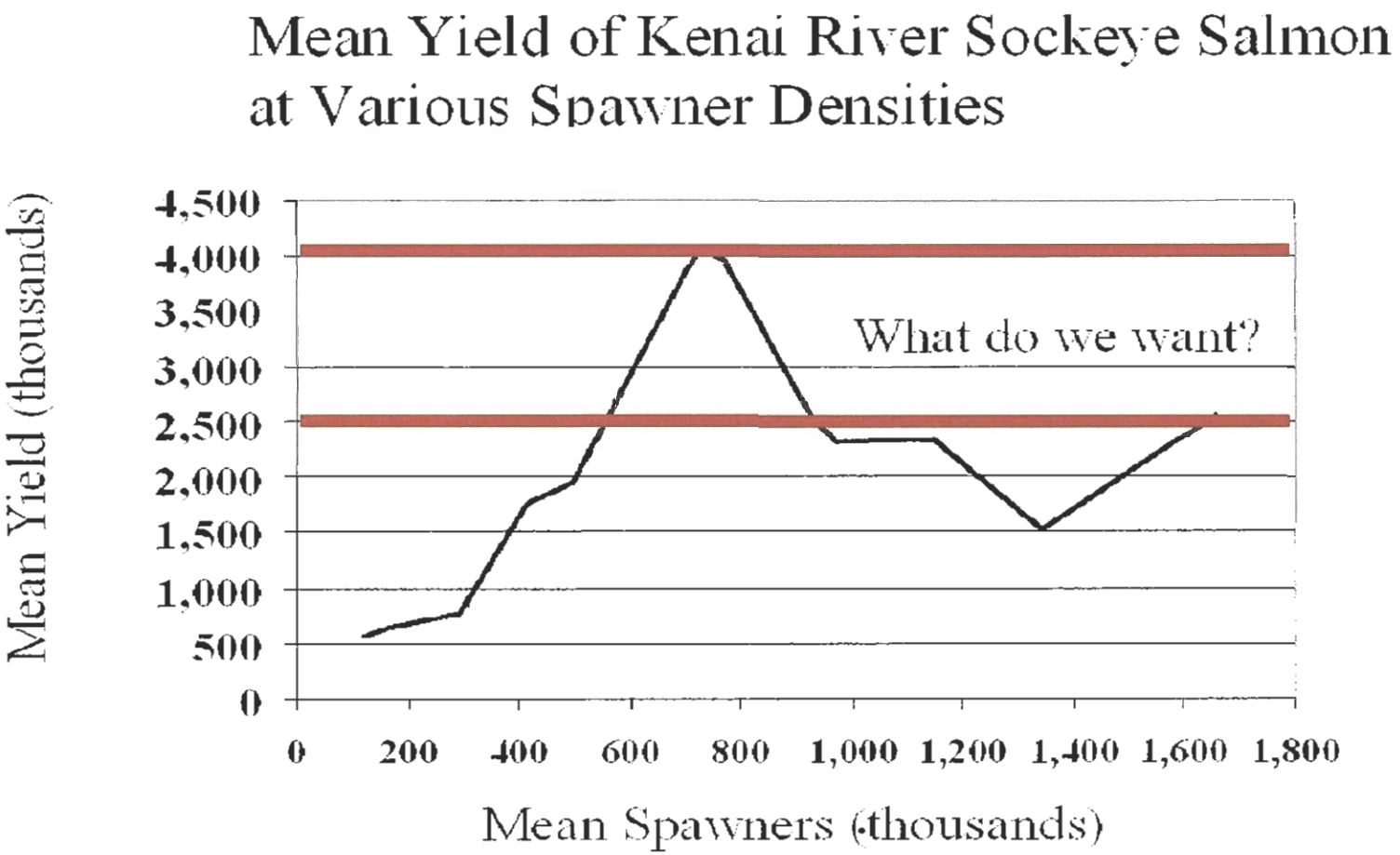
Processors & Buyers
- Over 19 Major Buyers for UCI

Sport Fisherman
-Increased guided anglers
-Private Anglers

Economic
-Local businesses
-Tourism

More Alaskan residents benefit from a healthy sockeye run.

What Kenai Sockeye Salmon YIELDS Do We Want?



Source of Data : ADF&G - Actual measured values

Goal D:

Propose changes
to the late run Kenai River
Chinook Salmon
management plan

Management Plan

New language in **BOLD**
Deleted language in ~~strikeout~~

5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan

(a) The purposes of this management plan are to ensure an adequate escapement of late-run king salmon into the Kenai River system and to provide management guidelines to the department. The department shall manage the late-run Kenai River king salmon stocks primarily for sport and guided sport uses in order to provide the sport and guided sport fishermen with a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency or inriver restrictions.

(b) The department shall manage the late run of Kenai River king salmon to achieve a ~~biological~~ **sustainable** escapement goal of ~~17,800 - 35,700~~ **15,000 to 30,000** king salmon, as follows:

(1) in the sport fishery,

(A) if the ~~biological~~ **sustainable** escapement goal is projected to be exceeded, the commissioner may, by emergency order, extend the sport fishing season up to seven days during the first week of August;

(B) from July 1 through July 31, a person may not use more than one single hook in the Kenai River downstream from Skilak Lake;

(2) in the sport fishery, that portion of the Kenai River downstream from Skilak Lake is open to unguided sport fishing from a non-motorized vessel on Mondays in July; for purposes of this section a non-motorized vessel is one that does not have a motor on board;

Management Plan

(3) if the projected ~~inriver return~~ **spawning escapement** is less than ~~17,800~~ **15,000** king salmon, **as projected between July 15-20th** the department shall:

(A) ~~close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon~~; **restrict to no bait and/or catch and release the king salmon sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point. No closure of the in-river sport fishery is required unless (D) below is implemented.**

(B) close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and

C) ~~close~~ **manage** the commercial set gillnet fishery in the Upper Subdistrict of the Central District **by emergency order management. The SEG will become an OEG of 11,000-30,000**

D) If it is projected that the OEG 11,000 will not be met the Upper Subdistrict set net fishery and late run Chinook salmon sport fisheries will close until August 1.

(E) if (C) above is implemented the department shall suspend provisions in other management plans relative to time and area restrictions relative to the Upper Subdistrict set net fishery.

(F) close the personal use fishery to the retention of chinook salmon.

(G) if (C) above is implemented the department shall reassess late run chinook salmon escapement on a daily basis. If the new projection is greater than the 15,000 SEG, the restriction section shall end.

Management Plan

(c) From July ~~20~~ **15** through July 31,

(1) repealed 6/22/2002;

(2) if the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below ~~17,800~~ **15,000** king salmon, the department may restrict the inriver sport fishery;

(3) repealed 6/22/2002;

~~(4) if the inriver sport fishery is closed under (2) of this subsection, the commercial set gillnet fishery in the Upper Subdistrict shall be closed;~~

(5) repealed 6/11/2005.

(d) Repealed 6/22/2002.

(e) Consistent with the purposes of this management plan and 5 AAC 21.360, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River described in 5 AAC 21.350(b).

(f) The provisions of the Kasilof River Salmon Management Plan (5 AAC 21.365) are exempt from the provisions of this section.

(g) The department will, to the extent practicable, conduct habitat assessments on a schedule that conforms to the Board of Fisheries (board) triennial meeting cycle. If the assessments demonstrate a net loss of riparian habitat caused by non commercial fishermen, the department is requested to report those findings to the board and submit proposals to the board for appropriate modification of this plan.

(h) The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

History: Eff. 6/10/89, Register 110; em am 4/30/91 - 5/30/91, Register 118 [not printed]; am 7/21/91, Register 119; am 5/31/96, Register 138; am 5/14/97, Register 142; am 2/25/98, Register 145; am 6/13/99, Register 150; am 6/22/2002, Register 162; am 6/30/2002, Register 162; am 6/11/2005, Register 174; am 6/4/2008, Register 186

Authority: AS 16.05.060

AS 16.05.251

Conclusion

This Proposal will, as the Task Force Mission states:

"result in the best mix of in-river (sport, guided sport, personal use) and Upper Subdistrict set gillnet fishing opportunity while providing the best means of attaining the escapement goal for Kenai River late-run Chinook Salmon **during times of low King Salmon abundance."**

Presentation online at: http://youtu.be/w7xTSzcqTT8

Reference

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Appendix D1. Posterior medians of return (used to produce Figure 12) and sustained yield (used to produce Figure 11) for escapements from 2,000 to 50,000 spawning fish, obtained from fitting a state-space model to Kenai River late-run Chinook salmon data, 1986–2012.

Escapement S	Return R	Sustained Yield SY
2,000	10,720	8,480
4,000	20,070	15,630
6,000	28,070	21,560
8,000	34,920	26,400
10,000	40,890	30,220
12,000	45,820	33,180
14,000	49,940	35,320
16,000	53,150	36,750
18,000	55,790	37,470
20,000	57,820	37,630
22,000	59,240	37,260
24,000	60,280	36,400
26,000	60,930	35,190
28,000	61,370	33,610
30,000	61,210	31,760
32,000	61,030	29,690
34,000	60,600	27,380
36,000	59,980	24,920
38,000	59,220	22,290
40,000	58,380	19,540
42,000	57,490	16,690
44,000	56,450	13,710
46,000	55,230	10,650
48,000	53,970	7,492
50,000	52,660	4,236

Source of Data: ADF&G

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Table 4.–Parameter estimates for state-space model fitted to late-run Kenai River Chinook salmon data, calendar years 1986–2012. Posterior medians are point estimates. CVs are posterior standard deviations divided by posterior means.

Year	Total run N (CV)	Inriver run IR (CV)	Escapement S (CV)	Return R (CV)
1979	59,090 (0.60)			
1980	51,930 (0.21)			
1981	110,300 (0.14)			
1982	92,810 (0.12)			
1983	38,910 (0.15)			
1984	35,920 (0.15)			
1985	40,630 (0.14)			
1986	77,850 (0.13)	61,620 (0.17)	51,410 (0.20)	52,150 (0.13)
1987	81,300 (0.13)	60,640 (0.17)	47,390 (0.21)	61,250 (0.13)
1988	72,990 (0.13)	60,410 (0.16)	40,470 (0.24)	63,040 (0.13)
1989	44,020 (0.14)	35,130 (0.18)	25,320 (0.24)	43,150 (0.14)
1990	37,370 (0.14)	32,150 (0.16)	25,140 (0.21)	45,090 (0.11)
1991	42,820 (0.13)	37,050 (0.16)	29,130 (0.20)	60,930 (0.09)
1992	51,760 (0.13)	41,220 (0.17)	33,400 (0.20)	51,580 (0.12)
1993	63,420 (0.14)	50,070 (0.17)	31,770 (0.27)	44,460 (0.13)
1994	60,060 (0.13)	46,540 (0.17)	28,100 (0.27)	51,930 (0.13)
1995	54,450 (0.13)	42,710 (0.16)	29,590 (0.23)	62,870 (0.13)
1996	48,020 (0.09)	37,010 (0.12)	28,530 (0.15)	53,460 (0.12)
1997	48,960 (0.08)	37,180 (0.11)	23,830 (0.17)	72,640 (0.12)
1998	50,660 (0.13)	44,700 (0.15)	36,550 (0.18)	94,760 (0.11)
1999	52,520 (0.12)	42,740 (0.15)	29,600 (0.22)	130,200 (0.11)
2000	50,680 (0.13)	45,530 (0.15)	30,620 (0.22)	75,130 (0.12)
2001	60,780 (0.14)	53,100 (0.16)	37,080 (0.23)	51,320 (0.12)
2002	66,420 (0.10)	56,520 (0.12)	45,120 (0.15)	69,250 (0.10)
2003	98,870 (0.11)	85,490 (0.12)	67,300 (0.16)	44,310 (0.10)
2004	101,200 (0.10)	79,900 (0.12)	63,950 (0.15)	22,510 (0.13)
2005	96,880 (0.10)	75,980 (0.13)	58,590 (0.17)	40,060 (0.10)
2006	74,450 (0.11)	61,460 (0.13)	48,140 (0.16)	29,110 (0.13)
2007	58,360 (0.08)	44,890 (0.10)	34,490 (0.13)	50,900 (0.21)
2008	52,180 (0.08)	43,480 (0.10)	32,920 (0.13)	37,820 (0.34)
2009	38,190 (0.09)	30,890 (0.12)	22,320 (0.16)	44,370 (0.48)
2010	30,510 (0.08)	23,370 (0.10)	16,320 (0.15)	
2011	36,650 (0.08)	27,700 (0.10)	20,290 (0.14)	
2012	29,370 (0.10)	28,640 (0.11)	28,440 (0.11)	

Source of Data: ADF&G