

# If you experience any problems at Ship Creek, make a complaint

Fishermen at Ship Creek have lost their honor and respect.

Ship Creek is too small to have fishermen walking up and down in the water as the fish are coming in or going out. Why would fishermen want to spook the fish by trampling in the water, when they just got done paying for gas, bait, tackle, food, drink and fishing line? To make things worse, they upset other fishermen and tourists trying to see the "real Alaska."

Has anyone ever had problems fishing at Ship Creek? Here are troubling examples I have personally experienced. First, imagine you're bobbing for fish and someone walks in front of you and starts helicopter fishing. Helicopter fishing is the act of moving your pole in a circular motion over and over again, attempting to snag a fish. Have you seen the snagging of fish as no one does anything?

If you see a problem at Ship Creek, please do something about it. Write a letter to the newspaper, call the mayor, or call your state legislator.

Remember, if you don't say something, don't complain while fishing at Ship Creek. Period.

— Wayne Swartwood  
Anchorage

RC26

I've participated in the Kasilof personal use setnet fishery for the last decade. This fishery is very important to me. It provides fish for my family for the long winters. I continue to have one reoccurring problem that that I would like to see the Board address at this meeting.

The problem is that even though there is limited space in this fishery people are holding sites when they aren't fishing leaving others with no place to fish. I've taken leave from work, packed up and taken down all my gear from Anchorage to Kasilof just to have to turn right around and go home because I couldn't find an open site to fish. The fact that many people are holding spots even though they aren't fishing makes this very frustrating.

People hold spots by setting out their running lines and leaving them out even when they aren't going to fish the incoming tide. The Department of Fish and Game Regulation summary advises people that "net sites are strictly on a first come first serve basis. The placement of signs, running lines, buoys, or dry nets on the beach in anticipation of incoming tides does not constitute any prior right to a net location. Sites are established only when the net actually enters the water." This wording makes it sound as if you can take any site if you can get your net in the water first. This is not realistic. If you've ever tried to take a spot that someone else has gear on you would understand.

I can relate this experience to you. One year I went down to Kasilof with another family. We each had our own gear and each wanted to fish our own site. However, we could only find one site open so they set up their gear first. Over the next 2 days I watched the site next to us sit unused even though it had running lines out on it. So on the third day I decided to use the site anyway. I set up my own lines and already had my net in the water with the tide coming in when the person came back to use the spot. He was extremely upset that I had taken over this spot ignoring his running lines. I told him I had the right to take that spot according to Fish and Game. I even told him I was not taking my net out of the water this tide but that afterwards I would take my gear out and let him have the spot back for the next tide but that was not appeasing him. He was mad. He glared at me the rest of the time I was there. I was afraid of him. It's true I got to fish but it put me in a very precarious position.

Some people do as this man did. They set up their gear and go home on days they don't want to fish and come back on days they do want to fish expecting to have their spot waiting for them when they return. Others go down, set up camp, set out their lines, and stay for the duration of the fishery. They get their quota then remain on a site holding it for family or friends who will be coming another day to fish. They leave their lines out with the site unused for days at a time.

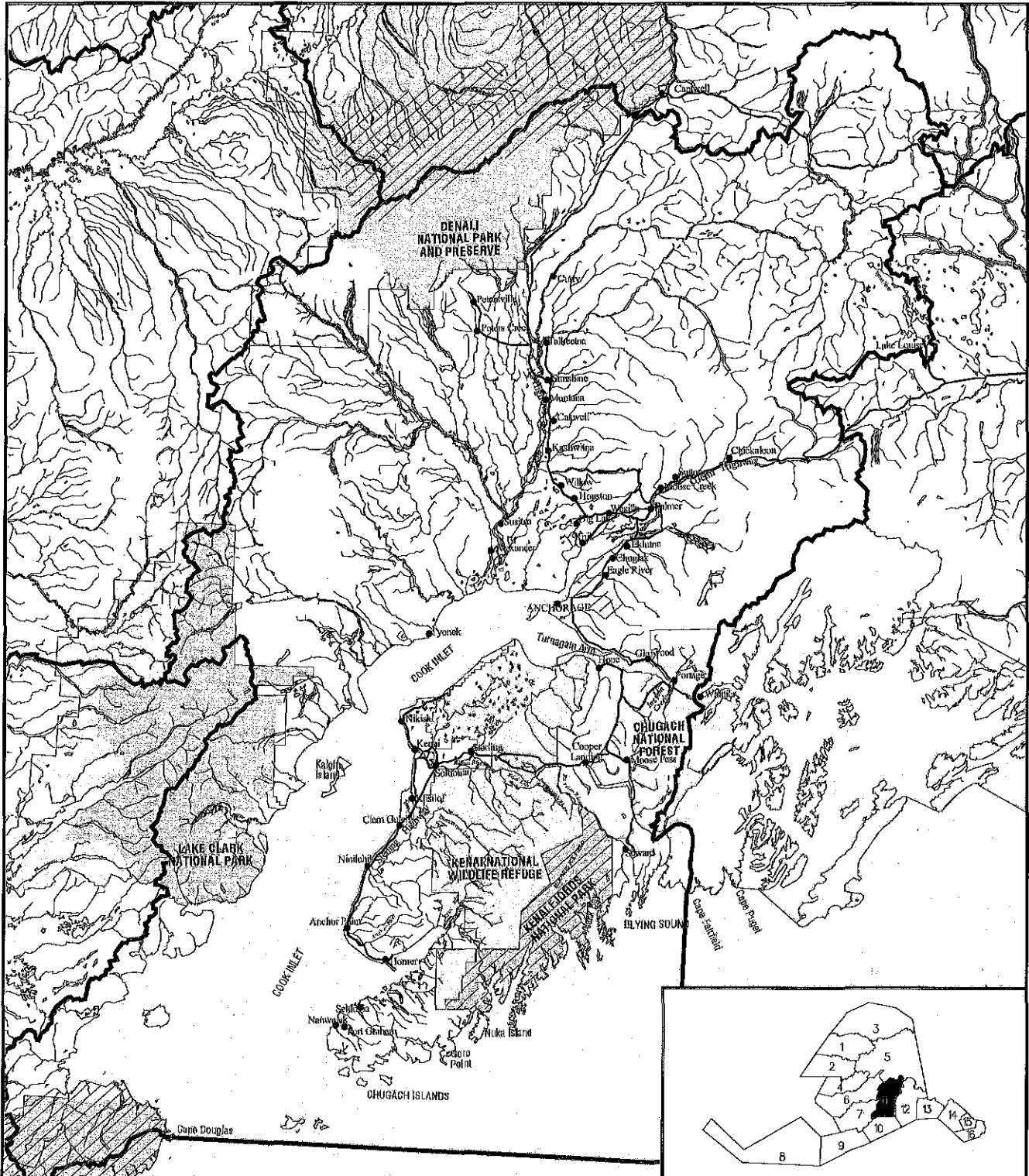
If someone is planning on fishing I don't want to try to take the spot they are using. I do, however, want the opportunity to fish any site that is not going to be used. If people were required to take their running lines out when they aren't fishing a tide it would be clear which sites were open for fishing on the incoming tide.

5AAC 77.540 (5) (C) currently reads "permit holder shall attend the set gillnet at all times when it is being used to take fish". I would like to ask the board to generate a proposal to add language to the end of 5AAC 77.540 (5) (C) as follows: "and shall remove all gear including running lines to behind the tide line when not taking fish during an incoming tide. Gear and lines which remain unused during an incoming tide will be subject to confiscation by enforcement." Adding this wordage would alleviate the problem considerably and ensure safety, fairness, and purpose in this fishery. The purpose being for people to get their allotted fish but then to get out and make room for others wanting to do the same.

I respectfully ask that one of the Board members make the proposal to add this necessary addendum to the Upper Cook Inlet Personal Use Setnet Fishery Administrative Code.

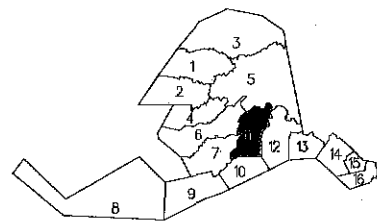
Sincerely submitted on this day, February 20<sup>th</sup>, 2011 by Cindy Calzada

Cook Inlet Area Subsistence Fishing



**Map 11**  
**Cook Inlet**  
**Area**

- |                               |                        |
|-------------------------------|------------------------|
| FWS Administered Land         | USFS Administered Land |
| NPS Administered Parks        | Closed to Subsistence  |
| NPS Administered Preserves    | Roads                  |
| BLM Administered Land         | Area Boundary          |
| BLM Non-navigable Waters Only | Federal Boundary       |



Cook Inlet Area

Drift and Northern District Salmon Management Plans, Commercial Fishing

Central District Drift Gillnet Management Plan: Proposals 123,124 126,127

BOF Members,

Proposals 123, 124, 126, and 127 all require the drift fleet to shoulder the entire conservation burden believed necessary to pass Northern District salmon stocks to their respective spawning areas to achieve spawning and harvest goals. These proposals effectively take the drift fleet off its historical fishing grounds during the peak days of the commercial salmon season.

Such drastic action is not necessary. The steady decline of salmon stocks in many drainages of the Northern District is not caused by the mixed stock commercial drift fishery, as the fleet harvest averages less than 10% of any species bound for the Northern District.

There are many causes which negatively impact the maximum sustainable yield of Northern District stocks including, but not limited to, human caused habitat degradation, stream obstructions, pollution runoff, flooding and, worst of all, the introduction and spread of pike.

Pike were illegally planted in the Northern District drainages by misdirected sport fisherman beginning in the 1950's and continuing up through the 1980's. Pike are documented to have spread throughout the entire Matanuska-Susitna lake and river system. These pike are ravenous predators consuming incredible numbers of juvenal salmon. Pike are detrimental to maximum sustained yield of Northern District salmon stocks.

This situation presents a serious concern and is unacceptable, as the Northern District stocks are a necessary and important part of the fleet's commercial harvest.

While the spread of pike is extensive, many stocks in the Northern District have not been impacted as severely as others. Therefore, it is the drift fleets' goal to convince the Board to pass regulations to protect distressed salmon populations in pike waters from sport harvesting by directing that sport harvesters fish exclusively in lakes and streams where

salmon stocks are still healthy in spite of pike. Additionally, the BOF should legalize all forms, methods, and means of pike eradication for the general public to use, and develop a predator pike management plan.

If proposals 123, 124, 126 and 127 are adopted the ADF&G's ability to manage for harvest and escapement goals through out Cook Inlet will be impossible.

Also, in my opinion, if adopted these proposals will deny any meaningful opportunity for the drift fleet to harvest Northern District salmon stocks. Such restriction will certainly create economic distress for the drift fleet and will award an exclusive use to all other users at the expense of the fleet. Both results disregard Article 8, paragraph 15 of the Alaska State Constitution.

Finally, these proposals will restrict the drift fleet away from its historical fishery during a critical time in the salmon season with no regard for the Exclusive Economic Zone fishery created by the Magnason-Stevens Act of which the drift fleet is among four off shore mixed stock fisheries named in the Act.

I ask the Board to reject all of these proposals entirely.

*RE Merchant 02/18/2011*  
Bob Merchant  
Kenai, Alaska

Drift and Northern District Salmon Management Plans, Commercial Fishing

Kenai, Kasilof River Salmon Management Plans, Commercial Fishing

Central district drift gillnet management plan, Proposal 125

Kenai late run sockeye salmon management plan, Proposal 128

BOF Members,

Both proposals 125 and 128 are long overdue and I support their passage.

Both will simplify regulations to eliminate confusion on the part of all users of the salmon resource in Cook Inlet. Both will make the ADF&G management during the busy salmon season much easier.

Proposal 125 does away with all the lines and areas put into regulation to limit fishing opportunity by the fleet and to limit the options available to ADF&G to manage for goals set by the Board of Fish. ADF&G managers have now and have always had the authority to restrict or liberalize the harvest of any user group to achieve goals by using Emergency Order Authority. Additionally, the public can respond to in season issues with BOF petitions, and finally the many ACs throughout the inlet can petition the BOF directly if they feel it is necessary. This process makes the regulations presently in force unnecessary. It is time for the Board to return its trust in the ADF&G by again allowing them to respond to the many and unexpected natural events that occur during the return of salmon stocks to Cook Inlet.

Proposal 128 establishes a single BEG goal to the Kenai River of 560,000 to 980,00 sockeye past the Didson counter. By all present biological science it is apparent that a single escapement goal will achieve all the goals set by the BOF, including the most important, Maximum Sustained Yield.

The central district drift gillnet fishery management plan has become too confusing and contradictory in its failure to combine seamlessly with the northern district salmon management plan. The present plan severely restricts ADF&Gs ability to use the fleet to harvest large sockeye returns to the Kenai even when the northern district salmon runs are strong.

Two years of genetic studies, brood tables, and weir counts of sockeye spawning in the Northern District drainages reveal an average exploitation harvest by the drift fleet of no more than 16% at the highest and 4% at the lowest, with an average of 8% in most seasons. Even in the most extreme example years fully 84% of sockeye salmon pass the mixed stock drift fishery. On average 92% of all salmon escape the fleet and are available to set nets and sport fisherman with plenty left over for spawning.

The "issue" statement of proposal 126 begins by stating, I quote: "The Central District Drift Gillnet fishery is arguably the most effective harvester of the mixed stocks of Upper Cook Inlet salmon." close quote. I present this true statement to remind the Board that the drift fleet has always harvested mixed stocks and has never been responsible for damaging a salmon stock by over fishing. Fishing two days a week allows five days a week for salmon to move through Cook Inlet. The drift fleet is not responsible for the weak salmon runs in the northern district.

*RE Merchant 2/18/2011*

Bob Merchant  
Kenai, Alaska

BOARD OF FISHERIES,  
2008/2009 Personal Use permits by location

February 20, 2011

Submitted by South Central Alaska Dipnetters association  
Ken Federico, Chair

Gentlemen,

I did a little number crunching and broke down 2008/2009 Personal Use permits, issued by Fish and Game, by location.

If a village had 10 or more permits, it was put on the spreadsheet. As an example, Nome had only eight permits so it did not make the list.

I thought this would give you a more detailed clue on where Alaskan residents reside and yet, dipnet at the Kenai/Kasilof. As you can see, people come from all over the state to partake in this fishery.



PERSONAL USE DATA - BREAK OUT BY CITY

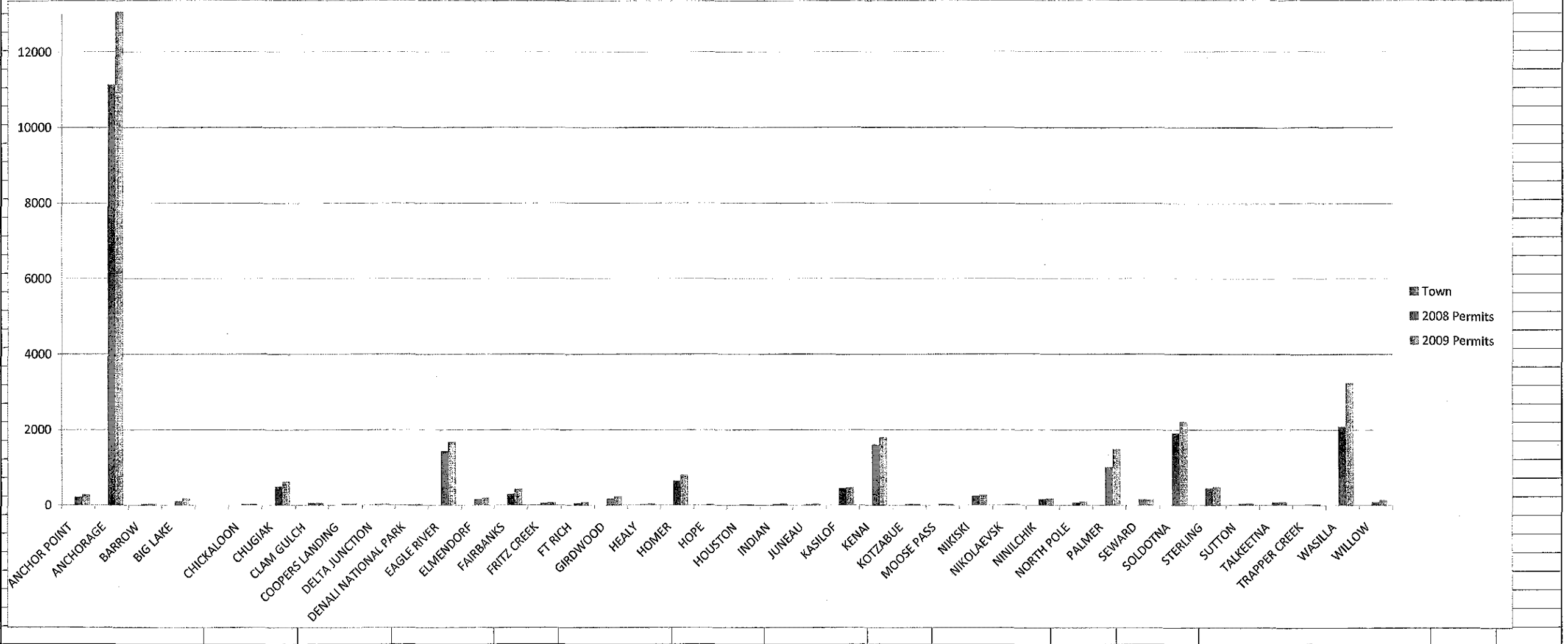
TOWN	POPULATION	2008 HOUSEHOLD PERMITS	HOUSEHOLD (AS ONE INDIVIDUAL) % RESIDENTS DIPNETTING	2008 CENSUS 2.78	PERCENT OF POPULATION WITH AVERAGE HOUSEHOLD	2009 HOUSEHOLD PERMITS	HOUSEHOLD (AS ONE INDIVIDUAL) % RESIDENTS DIPNETTING	2009 CENSUS 2.78	PERCENT OF POPULATION WITH AVERAGE HOUSEHOLD	2008 Vs. 2009 Household Permits
ANCHOR POINT	1845	208	0.11	578	0.31	271	0.15	753	0.41	63
ANCHORAGE	286174	11,132	0.04	30,947	0.11	13,541	0.05	37,644	0.13	2,409
BARROW	4580	23	0.01	64	0.01	35	0.01	97	0.02	12
BIG LAKE	2635	102	0.04	284	0.11	173	0.07	481	0.18	71
CHICKALOON	213	15	0.07	42	0.20	27	0.13	75	0.35	12
CHUGIAK	NO INFO	490	NO INFO	1,362	NO INFO	628	NO INFO	1,746	NO INFO	138
CLAM GULCH	199	54	0.27	150	0.75	58	0.29	161	0.81	4
COOPERS LANDING	385	29	0.08	81	0.21	29	0.08	81	0.21	0
DELTA JUNCTION	996	21	0.02	58	0.06	41	0.04	114	0.11	20
DENALI NATIONAL PARK	NO INFO	15	NO INFO	42	NO INFO	20	NO INFO	56	NO INFO	5
EAGLE RIVER	22231	1,418	0.06	3,942	0.18	1,673	0.08	4,651	0.21	255
ELMENDORF	NO INFO	155	NO INFO	431	NO INFO	193	NO INFO	537	NO INFO	38
FAIRBANKS	34290	284	0.01	790	0.02	428	0.01	1,190	0.03	144
FRITZ CREEK	1809	47	0.03	131	0.07	63	0.03	175	0.10	16
FT RICH	NO INFO	49	NO INFO	136	NO INFO	66	NO INFO	183	NO INFO	17
GIRDWOOD	1817	166	0.09	461	0.25	225	0.12	626	0.34	59
HEALY	984	26	0.03	72	0.07	43	0.04	120	0.12	17
HOMER	4137	638	0.15	1,774	0.43	794	0.19	2,207	0.53	156
HOPE	144	14	0.10	39	0.27	12	0.08	33	0.23	(2)
HOUSTON	1916	18	0.01	50	0.03	22	0.01	61	0.03	4
INDIAN	NO INFO	27	NO INFO	75	NO INFO	35	NO INFO	97	NO INFO	8
JUNEAU	30616	18	0.00	50	0.00	29	0.00	81	0.00	11
KASILOF	496	448	0.90	1,245	2.51	463	0.93	1,287	2.60	15
KENAI	7822	1,599	0.20	4,445	0.57	1,791	0.23	4,979	0.64	192
KOTZABUE	3180	20	0.01	56	0.02	22	0.01	61	0.02	2
MOOSE PASS	217	25	0.12	70	0.32	20	0.09	56	0.26	(5)
NIKISKI	4394	236	0.05	656	0.15	267	0.06	742	0.17	31
NIKOLAEVSK	356	20	0.06	56	0.16	21	0.06	58	0.16	1
NINILCHIK	850	157	0.18	436	0.51	183	0.22	509	0.60	26
NORTH POLE	2078	71	0.03	197	0.09	98	0.05	272	0.13	27
PALMER	7553	998	0.13	2,774	0.37	1,479	0.20	4,112	0.54	481
SEWARD	2834	144	0.05	400	0.14	142	0.05	395	0.14	(2)
SOLDOTNA	4275	1,906	0.45	5,299	1.24	2,208	0.52	6,138	1.44	302
STERLING	5233	439	0.08	1,220	0.23	483	0.09	1,343	0.26	44
SUTTON	1307	33	0.03	92	0.07	47	0.04	131	0.10	14
TALKEETNA	1117	73	0.07	203	0.18	72	0.06	200	0.18	(1)
TRAPPER CREEK	513	12	0.02	33	0.07	23	0.04	64	0.12	11
WASILLA	10524	2,071	0.20	5,757	0.55	3,234	0.31	8,991	0.85	1,163

PERSONAL USE DATA - BREAK OUT BY CITY

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WILLOW	2776	85	0.03	236	0.09	133	0.05	370	0.13	48		
										<b>5,806</b>	<b>MORE permits in 2009 than in 2008</b>	

PERSONAL USE DATA - BREAK OUT BY CITY

TOWN	POPULATION	2008 HOUSEHOLD PERMITS	HOUSEHOLD (AS ONE INDIVIDUAL) % RESIDENTS DIPNETTING	2008 CENSUS 2.78	PERCENT OF POPULATION WITH AVERAGE HOUSEHOLD	2009 HOUSEHOLD PERMITS	HOUSEHOLD (AS ONE INDIVIDUAL) % RESIDENTS DIPNETTING	2009 CENSUS 2.78	PERCENT OF POPULATION WITH AVERAGE HOUSEHOLD	2008 Vs. 2009 Household Permits
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SEWARD										
SOLDOTNA										
STERLING										
SUTTON										
TALKEETNA										
TRAPPER CREEK										
WASILLA										
WILLOW										



RC31

BOF, State of Alaska 2011 February meeting, February 20 to March 5<sup>th</sup>,  
UCI

From: South central Alaska Dipnetters Association, Ken Federico, chair

Mr. Chairman, BOF members,

The enclosed letter from Kenai Watershed Forum, Robert Ruffner, should show how so many diverse groups can come together when there is no allocation criteria, to make something positive happen for Habitat and for Alaskan residents to still be able to put fish into their freezers, at the same time. I am submitting this only to prove that such a diverse group can still agree to work together, regardless of allocation.

I'm sure that we can all agree that Habitat is a priority and with so much misinformation, concerning the dipnet fishery, being bandied about, that this shows that people care.

The Kenai is a case in point. Five years ago, people were pulling their hair out, concerning the Kenai, habitat and sanitation wise. If you look at the 2010 Kenai Dipnet fishery report, it shows a glowing report from all of the different departments from the Kenai City Government. ( please see PC 21) This just proves that when an entity puts it's mind together, things can get done.

Heck, looking at the response of Law enforcement, the most calls were transporting funds to and from Gate shacks to Kenai city coffers. How can a person argue with that?

The same thing is happening with the Kasilof Fishery. The state is in the process of creating a Special use area, regulations to be decided on at a later date. This fishery and the Habitat can both be protected. We just need to be able to separate the argument of habitat from allocation.

Thank you for your consideration, ken Federico, SCADA, 715-8363

Submitted by: SCADA  
Ken Federilo, Chair

(25)



Kenai  
Watershed  
Forum

44539 Sterling Hwy  
Suite #202  
Soldotna, AK 99669  
907 260-5449

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*Working together for healthy watersheds on the Kenai Peninsula*

2/25/10

Dear Governor Sean Parnell,

The following sixteen entities represent diverse interests that share a common concern over our natural resources on the Kenai Peninsula. The collective fisheries of the Kenai and Kasilof Rivers are spectacular natural and economic resources vital to fishing lifestyles, road accessible to nearly half of Alaska's population within a half-day drive.

We are writing now because the personal use fishery located at the mouths of the Kasilof and Kenai River need your attention. This popular fishery is attracting growing numbers of Alaskans from around the state, yet to date, there has been little state effort to address habitat and water quality concerns, particularly on the Kasilof River. As a result, our broad coalition is requesting your leadership in addressing fish habitat and water quality protection along both banks at the mouth of the Kenai and Kasilof Rivers.

The coastal dunes at the mouth of these rivers are unique habitats on the Western Kenai Peninsula. The vegetation on these dunes is being destroyed by undirected, unmanaged vehicle access. If the vegetation on these dunes is eliminated, so will the dunes. The City of Kenai and the Kenaitze Indian Tribe have made significant progress toward managing responsible access on the Kenai River, but no one is addressing the Kasilof access; State and private lands are suffering.

Water quality concerns consist of human waste, garbage and fish carcass management. The State of Alaska has recently addressed contamination from gasoline in the Kenai River, and the City of Kenai has some facilities to address human waste and trash. In contrast, the Kasilof has not had any water-quality monitoring; the bathroom and dumpsters at the Kasilof have been pieced together on an annual basis. The limited facilities at the Kasilof have been possible through cooperation with the Kenai Peninsula Borough and the Department of Natural Resources, the latter of which manages most of the impacted land. A more permanent and comprehensive solution for the Kasilof is needed.

While both river systems demand attention, our most immediate concerns are the impacts at the mouth of the Kasilof River. Some organizations and individuals may desire additional action, and will likely make individual requests of the State agencies and government officials, as a group we are only asking for attention to habitat degradation and water quality concerns.

Within these two concerns we respectfully request the following actions at the Kasilof to address short-term concerns (this year):

- Identify and charge a single point of contact within a State Agency with responsibility for on-the-ground management of access that does not continue to destroy wetlands and coastal dunes. Ideas include signage, fencing, brown shirt patrols (or other enforcement options), and supporting volunteer efforts. The point of contact would coordinate all state agency efforts related to water quality and habitat protection, and would serve as a liaison to all federal agencies and other entities with natural resource interests or jurisdiction in the area.
- At a minimum the state should ensure adequate funding is available for the required bathroom facilities and proper trash disposal at the mouth of the Kasilof River. Last year's funding was \$16k, and it was very inadequate.

To address the long-term issues at both the Kasilof and Kenai River mouths, we respectfully request the following actions:

- Identify sustainable funding sources to manage these fisheries in a way that reduces the impacts over current levels.
- Introduce legislation that makes it illegal to willfully destroy wetland or coastal dune vegetation in the Kasilof and Kenai River mouth.
- Establish a strategic planning process.

To facilitate this effort, we respectfully request that you direct the State's point of contact convene and attend a public workshop with ADFG, ADNR, and ADEC within 30 days of receipt of this correspondence, prior to the adjournment of the 26<sup>th</sup> Legislative Session.

Thank you for your prompt attention to this matter,



Robert Ruffner  
Executive Director

On behalf of the following organizations:

Alaska Fly Fishers - Mark Huber  
Alaska Sportfishing Association - Phil Cutler  
City of Kenai - Mayor Pat Porter  
City of Soldotna - Mayor Peter Micciche  
Cook Inletkeeper - Bob Shavelson  
Kasilof Historical Society - Brent Johnson  
Kenai Area Fisherman's Coalition - Ken Tarbox

Kenai Peninsula Borough - Mayor Dave Carey  
Kenai Peninsula Fisherman's Association - Paul Shadura  
Kenai Peninsula Marketing Tourism Council - Joe Connors  
Kenai River Professional Guides Association - Dave Goggia  
Kenai River Sportfishing Association - Ricky Gease  
Kenai Watershed Forum - Kristy McCullough  
Kenai/ Soldotna Fish and Game Advisory Committee - Mike Crawford  
Matanuska Valley Fish and Game Advisory Committee - Stephen Darilek  
South Central Alaska Dipnetters Association - Ken Federico  
United Cook Inlet Drifters Association - Roland Maw

cc:

Commissioners

Tom Irwin - Alaska Department of Natural Resources  
Denby Lloyd - Alaska Department of Fish and Game  
Larry Hartig - Alaska Department of Environmental Conservation

Senate President - Gary Stevens  
Senator - Tom Wagoner

House Speaker Representative - Mike Chenault  
Representative - Kurt Olson

Representatives Finance Subcommittee ADNR

Chair Representative Kelly  
Representative Gatto  
Representative Johnson  
Representative Neuman  
Representative T. Wilson  
Representative Crawford  
Representative Doogan

Senate Finance Subcommittee ADNR

Chair Senator Huggins  
Senator McGuire  
Senator Menard  
Senator Wielechowski

**KENAI LATE RUN SOCKEYE DIDSON RETURN TABLE**

**RC 32**

BRYR	SPWN	Total Return	Return per Spawner
1968	115,545	960,169	8.31
1969	72,901	430,947	5.91
1970	101,794	550,923	5.41
1971	406,714	986,397	2.43
1972	431,058	2,547,851	5.91
1973	507,072	2,125,986	4.19
1974	209,836	788,067	3.76
1975	184,262	1,055,374	5.73
1976	507,440	1,506,075	2.97
1977	951,038	3,112,852	3.27
1978	511,781	3,785,623	7.40
1979	373,810	1,321,707	3.54
1980	600,813	2,675,007	4.45
1981	527,553	2,465,818	4.67
1982	755,413	9,591,200	12.70
1983	792,368	9,489,648	11.98
1984	446,397	3,865,134	8.66
1985	573,611	2,592,968	4.52
1986	546,614	2,174,842	3.98
1987	1,982,501	10,378,573	5.24
1988	1,173,656	2,550,942	2.17
1989	2,027,299	4,480,888	2.21
1990	730,471	1,518,983	2.08
1991	756,348	4,444,531	5.88
1992	1,188,434	4,272,741	3.60
1993	992,096	1,690,264	1.70
1994	1,307,269	3,053,461	2.34
1995	771,935	1,900,509	2.46
1996	916,244	2,262,667	2.47
1997	1,326,202	3,627,321	2.74
1998	877,434	4,466,351	5.09
1999	916,047	5,755,767	6.28
2000	668,510	7,061,112	10.56
2001	713,484	1,705,700	2.39
2002	1,081,577	3,625,112	3.35
2003	1,395,432	1,908,893	1.37
2004	1,678,521	3,229,842	1.92
2005	1,646,987	2,650,255	1.61
2006	1,876,088	.	.
2007	957,584	.	.
2008	704,154	.	.
2009	876,593	.	.
2010	1,194,883	.	.

18 of Members

since the inception of 3 tiered Management in 1999 out of the 7 years of data 3 years - all have yielded a R/S ratio of less than

2

Due to high over-escapements it will probably happen for 2006 also.

GARY HOLLIER  
Soldotna, AK 99618



RC33

# “The Collapsing Kenai”

Published in the Fall 2010 Edition

Of

Salmon & Steelhead Journal

Author: Terry Sheely

  
Submitted By: Dwight Kramer  
Kenai

Dan Kearn hefts an average-size king from the Kenai River caught this past summer.



DAN KERN PHOTO

up ahead of the dismal 2009 return of 11,000 and change, the June run was unhappily far below the five year average of 18,195.

Rarely has an early season started so badly as this year's, which prompted a very worried ADF&G to slam the sport fishing season, closed in mid-stride.

The closure occurred in the first week of June when the early king salmon counts were the lowest on record. By June 2 only a dismal 739 Kenai kings had passed the sonar station. The historical average by that day is 3,114 fish.

Fish managers with the ADF&G looked at the plunging numbers, pulled out their calculators and publicly worried that only 3,800 early-run king salmon were likely to return to the Kenai River in 2010 — well below even the minimum

spawning escapement target of 5,300, and too low to allow even a catch-and-release fishery.

The effect was devastating on guides and traveling anglers, and as it turned out unnecessary.

Long-time Kenai River outfitter Greg Brush of E-Z Limit Guide Service in Soldotna fired off a letter to ADF&G and to every sport-fishing media in range asking the questions that hundreds of anglers were thinking.

*"When is ADF&G going to clean house and finally employ some people who are on the ball and accountable, ensuring the future of our salmon runs?"*

*"Yes, indeed, just when I think the management of our fisheries can't get any more appalling, breaking news emerges and I find*

*myself even more bitter, disgusted, and shocked! I am only "home on the computer" RIGHT now because of a cancellation that occurred due to your Emergency Orders!"*

Brush's outrage was symptomatically shared and reflected the opinions of many Kenai guides and anglers shocked by the surprise sport-fishing closure. The outrage grew stronger legs when guides learned that local biologists were also questioning the closure and were unaware of an even more explosive development.

Even before all of the trip cancellations were refunded, stunned fishing guides and local businesses learned that the Commercial Fisheries Division of ADF&G was gill netting near the mouth of the Kenai for sockeye (reds) to be sold to pump \$60,000 into ADF&G coffers. The bitter kicker

emergency early closure).

For the last few years though, Kenai River chinook numbers have been trending even farther below par. This year's early chinook run came in weak, ended poorly and created chaos in the middle.

Final counts at the Alaska Department of Fish & Game sonar station 8.6 miles up river pegged the final early run at 13,248 chinook. While that season eventually wound

Herb Good prepares to net a Kenai River salmon for Marilyn Moore caught on the lower river.



Daily News, "They're not testing anything. They're simply harvesting fish and selling them. There's a tension for sure between the statute the way it's written and the way it's been expanded."

After the political turmoil, the ADF&G *faux pas* and roller coaster surges of the early run chinook, fishermen belted in and waited to see what the late run of kings would bring. It brought less verbal fireworks but even more cause for worry.

The 2010 low returns continued from the early run into July when the late run hit the river. Before the late run season opened ADF&G area biologist Robert Begich predicted an in river run of

32,000 which would have been alarmingly below the 43,000 average for late Kenai kings and produced a sport catch of around 6,041.

An unpredicted surge at mid-season catapulted the late run back to near average—on paper—and produced an angler catch of 5,377 kings which, while better than feared was still the lowest in recent years, according to Begich. The commercial net kill of 5,733 Kenai kings was the second lowest in recent years, heaping more evidence on the argument that Kenai River run sizes are shrinking.

According to ADF&G reports, "If run and fisheries proceed at current rates, it is likely that the (spawning)

was that the ADF&G commercial nets would be in the river at the same time as that ADF&G's sport-fishing division was closing sport-fishing and scrambling to protect the "weakest early-run in history."

Looking to raise bucks for department projects, ADFG's commercial division contracted with Icicle Seafoods, which hired commercial fishermen to conduct the set net fishery for the department. As it happened, Icicle kept the fish and wrote Fish and Game a check.

The incidental by-catch killing of early run kings by the ADFG sockeye nets was expected to be low, but devastating given that Kenai biologists, at that time, didn't expect enough chinook to return to the river to fill spawning requirements. That one arm of ADF&G was killing Kenai kings while another arm was risking economic disaster in order to save the same Kenai kings sent the sport-fishing world spinning sideways. Criticism was immediate and fiery.

"How can ADF&G make the statement that the Kenai River early run can't afford one dead king (recent decision to close the river to sport-fishing and not to go to catch & release) and then allow a set-net fishery to occur near the mouth of the Kenai River?" asked Brush.

The Kenai River Professional Guides Association, bitterly complained that Commercial Fisheries Division, "is stunning in its arrogance," added the KRPGA. "This set net 'cost recovery' fishery is an unexpected, unacceptable practice. The

bottom line is that it appears ADF&G has been, and is allowing, a cost recovery program to be operated with little or no oversight and with little or no apparent regard for well established Upper Cook Inlet salmon management plans."

Ricky Gease, executive director of the Kenai River Sportfishing Association fired off an indignant letter to the Alaska Board of Fisheries, protesting bitterly. "This set net, 'fund raising' effort is wrong on so many levels. (It) targets early-run sockeye salmon bound for the world-famous sport fishery located at the Russian River and also will impact early-run Kenai River kings. Prosecution of this fishery at this time is outrageous and should be stopped immediately," he wrote.

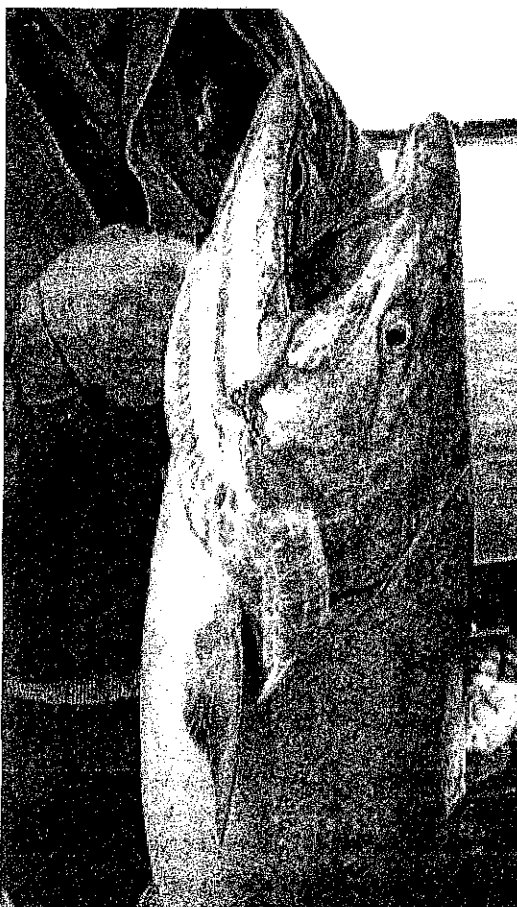
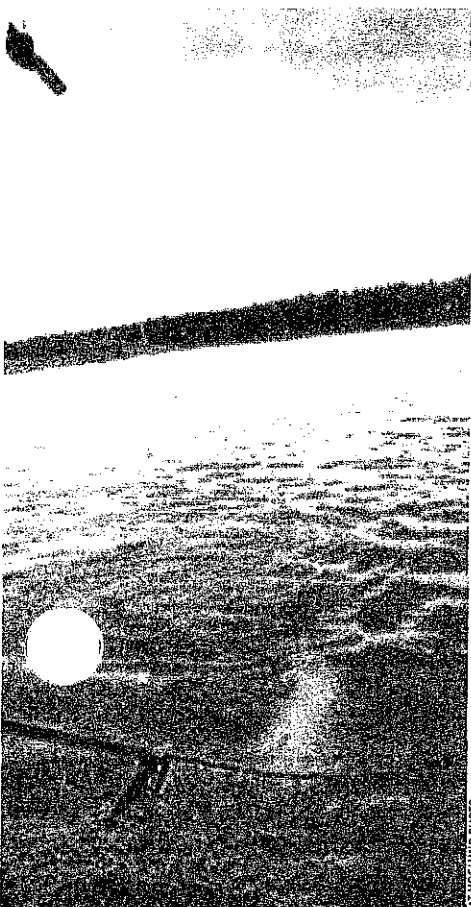
Shanon Hamrick, executive director of the Kenai Peninsula Tourism worried publicly that if runs continue to falter when combined with sport-fishing closures might jeopardize a \$989 million sport fishing industry. She pointed out that 73 percent of jobs and 71 percent of all angler expenditures in Alaska in 2007 came from sport-fishing in Southcentral, especially the dynamic Kenai fishery.

Kevin Delaney, former director of ADF&G's Sport Fish Division and now a member of the Kenai River Sportfishing Association, confirmed that fish and game is allowed to sell fish caught in test fisheries and has the authority to sell fish they catch when they conduct a test fishery.

"But they've stretched the definitions here," he told a reporter for the Anchorage

A good fish by today's standard, this 40-pound Kenai River king fell to a back-trolled salmon plug.

Herb prepares to release a Kenai River king salmon.



escapement will be near the lower end of the goal range." The report added that after allowing for shoulder factors including mis-identifying the species of the smaller fish in the run, "actual run strength is well below average," which is not good news for the next five years of trophy chinook return.

And the world-class trophy part of that return is also very much in question—debated to be sure—but definitely a concern.

While the average size of Kenai chinook continues to draw anglers from around the world to challenge wall hangers, most are now forced to be satisfied with a 45- to 60-pound trophy. Evidence is

increasing that the number of top-end, shout-and-dance fish has fallen and is not getting back up.

More than one Kenai guide interviewed for this article admitted that 70-pounders are rare, 80-pounders almost unheard of and that a lot more fishing time is coming between even the 50- to 60-pounders that were the bread-and-butter trophies for so many decades. Some remain optimistically upbeat hoping that their trophy clientele will continue.

Herb Good, who first guided on the Kenai in 1978, is not among the Pollyannaish.

"The size of these salmon is definitely going down, everywhere, every year," he says.

"As we target the big fish, the size just keeps going down. When I started on the Kenai you were allowed five salmon and they were all 50 pounds plus. But you can't do that now. Now I very rarely weigh a fish over 60 pounds. If you net all the big ones what do you have left to spawn? That's my question."

While the total 2010 late chinook run eventually inched upwards nearing the multi-year average, ADF&G biologist Begich is warning that those numbers are "paper salmon" and likely skewed and inaccurate. The actual return, he says, is probably significantly smaller.

Begich also reported the size of fish are smaller. "The

2010 late run of king salmon to the Kenai River are smaller and younger than usual which is represented in the department's indices of king salmon passage (test net catches, other sonar indices, harvest in all fisheries).

"All factors considered," he concluded, "projection for the 2010 king salmon late run to Kenai River is biased high. Catch rates in both the sport and commercial fisheries combined with low numbers of larger, older king salmon in the run indicate a run strength similar to, or smaller than the 2009 late run, which was approximately 26,000 kings, compared to the recent average of 43,000."

When an entire run is

Statistics show the size of king salmon on the Kenai River has decreased dramatically in the past 20 years.

judged "smaller and younger" it equates to fewer super-sized 50- to 60-pounders and almost nonexistent six-year-old chinook that push against the 70- and 80-pound weights. Dreams of catching another Anderson-esque 97.4-pounder become little more than wishful thinking.

Fisheries scientists around the world are currently examining a possible link between commercial fishing practices and smaller fish sizes, but in a radio crossfire type interview on KDLG, Ecologist Stephan B. Munch's data showing commercial netting was culling the gene pool of larger fish, was disputed by John Hilsinger, Director of Commercial Fisheries. Hilsinger argued that Alaska's commercial fisheries management practices protect species stock size in order to maintain diversity and resiliency within specific populations. That's a statement widely disputed by sport fishermen.

But net mesh size and chinook genes aren't the only factors determining salmon size; wild cards include ocean temperatures, nutritional upwellings, food availability, and habitat variations to name a few.

On the radio debate, Munch argued that commercial fishing



PAT HOGUND PHOTO

removing larger fish, created with four or five generations, yield that were off 50 percent in growth, and pointed to an Alaska study on removing the bigger fish that showed a (physical size) rebound after commercial fishing was stopped, where fish evolved back to the size they were before the commercial impacts.

A sport fishery that specifically targets the top end of the gene pool is likely to have the same long-range effect, as Good argues, as culling in commercial nets. When both commercial and sports are primarily targeting super-sized wall hangers, what, as Good asks, size chinook are left to breed in the Kenai?

While the study that Munich cited did not take place on the Kenai, the downsizing of North America's most celebrated trophy chinook run, while not yet documented by science, seems only too real on the river bank. □

RC 34



## Kenai River Late Run Sockeye (LRS) Salmon Escapement Goals Analysis and Recommendations

Roland Mann

### Late Run Sockeye – Kenai River – UCIDA Recommendation

- BEG at 650,000 to 950,000 (DIDSON)
  - OEG at 600,000 to 1,000,000 (DIDSON)
  - In River goals not to exceed 1,000,000 (DIDSON)
1. The reference document is: Review of Salmon Escapement Goals in Upper Cook Inlet, Alaska, 2011. Fishery Manuscript Series No. 10-06.
  2. On page 1 – 9 the Department **does not** inform the readers that there have been **250,000 sockeye deductions** from the Kenai returns and a corresponding **250,000 sockeye additions** to the Kasilof returns. See also page 11: Sockeye Salmon, Kasilof River, there is no mention of the additional 250,000 sockeyes.
  3. Page 12, paragraph 2. The contrast for the Kenai LRS is  $12.7 \div 1.4 = 9.07$ . The Kenai LRS have an SEG with a high contrast of 9.07. If there is an escapement contrast and exploitation with a high contrast, greater than 8, the SEG range should be the 25<sup>th</sup> to 75<sup>th</sup> percentile. If the Kenai LRS are to be managed under an SEG scenario, then the 25<sup>th</sup> to 75<sup>th</sup> percentile should be used. The Department can't have it both ways, i.e., an SEG with high contrast and not follow the percentile approach. The reader is never told that the contrast is 9.07. The reader is never told why the Kenai is an SEG and why the 25<sup>th</sup> to 75<sup>th</sup> percentile approach was not followed. If the Kenai LRS are to be managed under a BEG, then the 25<sup>th</sup> to 75<sup>th</sup> parallel should not be used.
  4. Page 12, paragraph 4. "Likelihood profiles of escapements that produced high sustained yields further showed the simple brood interaction model as the best described stock-recruitment relationship for this stock (Figure 11)." On Page 13, paragraph 1: "from analysis of the 1969-2005 data suggest a goal range of 650,000 – 950,000 (Table 8, page 29)" Fair, et al., 2010
  5. Page 12, paragraph 5. In this one paragraph there are four escapement goals given, see Fig. 1 below. The best model produced an escapement goal range of 650,000 – 950,000. Why was this abandoned in favor of a much higher escapement goal range?
  6. Page 13, paragraph 2. The next best model was the "Markov Yield Analysis." "a Markov yield analysis indicated highest (>3.9, million) mean yields occur within a range of 600,000 – 900,000 spawners (Table 9), and that escapements from 500,000 – 1,200,000 also produce high (>2.3 million) yields. Escapements below 400,000 salmon never produced yields exceeding 948,000. The highest yields (Figure 12) originated from



escapements of 755,000, 792,000, and 1,983,000 sockeye salmon (brood years 1982, 1983, and 1987). When escapements exceeded 900,000, yields were highly variable, ranging from 513,000 – 8,396,000. In this updated data set, 4 year classes (2002 – 2005) were added to the upper escapement interval (Appendix C6). Yield from the 2002 year class (2,543,500) was above average (2,459,400), whereas yields from 2003 to 2005 year classes (513,500, 1,551,300, and 1,003,300) were below average. This pattern of reduced yield from consecutive large escapements is consistent with the brood interaction observed in brood years 1987-1990.” See Table 9, page 30, Escapement Goal Report, Fair, et al. 2010. See Fig. 1 below.

**Figure 1**

<u>Model/Method</u>		<u>LRS Escapement Ranges</u>
Brood Interaction	1969 – 2005	650,000 – 950,000
Brood Interaction	1979 – 2005	500,000 – 1,000,000
90 – 100% MSY	1969 – 2005	700,000 – 1,200,000
90 – 100% MSY	1979 – 2005	650,000 – 1,100,000
Markov Yield	1969 – 2005	600,000 – 900,000

7. Page 13, paragraph 3. “We recommend that the Kenai River late-run sockeye salmon SEG be set at 700,000 – 1,200,000 spawners as estimated using the brood-interaction model fit to the full data set.” This is the highest numeric values for both the lower and upper ranges of the five (5) escapement goal ranges discussed in Fig. 1 above. This escapement goal range utilizes an **MSY value of 950,000**, 1969-2005 data set that came from the brood interaction model. The Department now rejects the 650,000 – 950,000 range, but utilizes the 950,000 MSY value form the brood interaction model to establish an SEG with 90 – 100% percentile ranges, 700,000 – 1,200,000. In this case, we know MSY is 950,000. A BEG is the appropriate type of escapement goal designation, NOT an SEG.
8. Page 29, Table 8. As you look at Table 8, the 5<sup>th</sup> and 9<sup>th</sup> columns display P<1000 values. These are the probabilities of having a return of less than (<) 1,000,000 sockeyes 6% of the time. The Department fails to visually graph these risk data values. Additionally, the Department fails to provide the probability risk values for returns of <1.5, 2.0, 2.5, 3.5, 3.5 and 4.0 million. These probability and risk values are important and need to be presented and discussed.
9. Pages 12, 13, 29 and 30 describe two data sets, 1969-2005 vs. 1979-2005. On these pages there are numerous references and escapement goals presented utilizing these data sets. There is an inadequate discussion as to the differences between them.



10. Precautionary Approach – In reviewing the Departments documents, we have noticed that there are many mathematical and statistical errors, unexplained leaps in logic, unsupported conclusions and recommendations.

Set of measures taken to implement the Precautionary Principle. A set of agreed effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of “being wrong.”

11. Recommendation(s) – UCIDA

1969-2005 data time-series:

- Kenai LRS Escapement Goal
  - BEG – **650,000 – 950,000**
  - OEG – **500,000 – 1,000,000** exists currently
  - In-River Goal **never to exceed 1,000,000 + 150,000** sport harvest allocation above the sonar site at River Mile 19.5

1979-2005 data time-series:

- Kenai LRS Escapement Goal
  - BEG – **500,000 – 1,000,000**
  - OEG – **500,000 – 1,000,000** exists currently
  - In River – **500,000 – 1,000,000 + 150,000** sport harvest allocation above the sonar site at River Mile 19.5

What concerns UCIDA is a scenario where the Kenai River LRS return of less than 2,000,000 and the following occurs:

Escapement	1,200,000
PU Harvest	300,000
In-River Harvest	<u>300,000</u>
	1,800,000

This scenario would provide for a commercial harvest of 200,000 among the 1,200-plus families. Escapement goals and allocations as small returns, <2 million, are a big deal and important. That is why we need a public debate about escapement goals and allocations.



## Kenai River

ADF&G adopted the current escapement goal range of 500,000–800,000 in 1999. In 2005 the goal changed from a BEG to an SEG (Clark et al. 2007). The goal does not include hatchery-produced sockeye salmon passing through the Hidden Creek weir. Results from this review use DIDSON as the estimate of inriver abundance.

Over the past 43 years, Kenai River sockeye salmon escapements ranged from about 73,000 to about 2.0 million (Figure 7, Appendix C6). During this same time span, recruit/spawner estimates ranged from approximately 1.4 to 12.7 (Figure 7). The second highest estimated escapement level occurred in 1987 and produced recruits at the rate of about 5 to 1, while a similar escapement in 1989 produced recruits at a rate of about 2 to 1. The highest estimate of recruits/spawner (12.7) came from the 1982 escapement (755,413).

Using the full data set, 1969–2005, the general Ricker model was significant ( $P < 0.001$ ) for the Kenai sockeye salmon spawner-return data. However, the density-dependent parameter ( $\beta$ ) did not significantly differ from zero ( $P = 0.157$ ), and  $\gamma$  was not different from one ( $P = 0.897$ ; Table 6). For the classic Ricker model (Figure 8),  $\beta$  was significantly different from zero ( $P = 0.004$ ), but a lag-1 autoregressive ( $\phi$ ) parameter was not significant ( $P = 0.079$ ; Table 6). The density-dependent parameter ( $\psi$ ) in the Cushing model significantly differed from one ( $P = 0.014$ ). Finally, the density-dependent parameters in the classic Ricker model with a single brood-interaction term (Carlson et al. 1999) did not significantly differ from zero ( $P \geq 0.100$ ). A stepwise regression procedure revealed a brood-interaction model describing the stock-recruitment relationship. The  $\beta$  parameter was significantly different from zero ( $P = 0.006$ ) in a 3-parameter model, but  $\gamma$  was not significantly different from one ( $P = 0.824$ ). A simplified 2-parameter brood-interaction model best described ( $P < 0.001$ ) the stock-recruitment relationship for this stock (Table 6, Figure 9). The improved fit of the simple brood-interaction model over the classic Ricker was primarily due to brood years 1988–1990, which followed the largest escapements ever observed in 1987 and 1989 (Figure 10). The improved fit of the simple brood-interaction model was also due to brood years 2004 and 2005, produced by the 3<sup>rd</sup> and 5<sup>th</sup> largest escapements.

Using the 1979–2005 data, the Ricker and Cushing models did not fit the spawner-return data for Kenai River sockeye salmon (Table 7). For the classic Ricker model,  $\beta$  was significantly different from zero ( $P = 0.016$ ), but the  $R^2$  for a regression of observed versus predicted adult returns was only 0.06. For the autoregressive Ricker model,  $\beta$  did not significantly differ from zero ( $P = 0.839$ ), but the lag-1 autoregressive parameter was significantly different from zero ( $P = 0.003$ ). For the autoregressive Ricker model, the  $R^2$  for a regression of observed versus predicted adult returns increased to 0.23, and the likelihood ratio test demonstrated a significant ( $P < 0.05$ ) improvement in model fit over the classic Ricker model. For the classic Ricker model with a single brood-interaction term, the first density-dependent parameter ( $\beta_1$ ) did not significantly differ from zero ( $P = 0.088$ ), but  $\beta_2$  was different from zero ( $P = 0.021$ ). As before, a stepwise regression procedure revealed a simplified 2-parameter brood-interaction model that best fit the spawner-return data (Table 7). Likelihood profiles of escapements that produced high sustained yields further showed the simple brood interaction model as the best described stock-recruitment relationship for this stock (Figure 11).

Applying the same criteria (<6% risk of a yield <1 million sockeye salmon) used to establish the current SEG (Carlson et al. 1999), simulations of the brood-interaction model using parameters

from analysis of the 1969–2005 data suggest a goal range of 650,000–950,000 (Table 8). Simulations using parameters from analysis of the 1979–2005 data suggest a goal range of 500,000–1,000,000. Using escapements that represent 90–100% MSY (1969–2005: MSY = 3,103,000; 1979–2005: MSY = 3,378,000), the ranges were 700,000–1,200,000 and 650,000–1,100,000 spawners for the full and reduced data sets (Table 8).

A simple 2-parameter brood-interaction model (Carlson et al. 1999) best fit the Kenai River sockeye salmon spawner-return data based on  $R^2$  and AIC values (Tables 6 and 7). Edmundson et al. (2003) hypothesized that brood interactions likely result from food limitation and subsequent mortality of fry immediately following emergence and during the first winter. Large fry populations from the previous brood year cause reduced copepod (zooplankton) density the following spring, limiting food resources for subsequent fry. The effect that fry grazing on copepod biomass has the following spring is caused by the 2-year lifecycle of the dominant copepod species in this system.

Using the full data set (1969–2005), a Markov yield analysis indicated highest (>3.9 million) mean yields occur within a range of 600,000–900,000 spawners (Table 9), and that escapements from 500,000–1,200,000 also produce high (>2.3 million) yields. Escapements below 400,000 salmon never produced yields exceeding 948,000. The highest yields (Figure 12) originated from escapements of 755,000, 792,000, and 1,983,000 sockeye salmon (brood years 1982, 1983, and 1987). When escapements exceeded 900,000, yields were highly variable, ranging from 513,000–8,396,000. In this updated data set, 4 year classes (2002–2005) were added to the upper escapement interval (Appendix C6). Yield from the 2002 year class (2,543,500) was above average (2,459,400), whereas yields from 2003 to 2005 year classes (513,500, 1,551,300, and 1,003,300) were below average. This pattern of reduced yield from consecutive large escapements is consistent with the brood interaction observed in brood years 1987–1990.

We recommend that the Kenai River late-run sockeye salmon SEG be set at 700,000–1,200,000 spawners as estimated using the brood-interaction model fit to the full data set. The related inriver goal will be assessed with DIDSON. The range approximately represents the escapement that on average will produce 90–100% of MSY. We also recommend using the 90–100% range to set the SEG because it results in a broader interval with the highest predicted yield near its center. Basing a goal range from a model's prediction of escapements that produce 90–100% MSY is common practice throughout Alaska. Finally, this goal is supported by a plot of yield versus escapement, showing that escapements in this range generally produce the highest yields (Figure 12).

### **Russian River Early Run**

The Russian River sockeye salmon early run has an SEG of 14,000–37,000, developed in the 2001/2002 review using the 25<sup>th</sup> and 75<sup>th</sup> percentile of the 1965–2000 weir escapement data. We currently have escapement, total return, and exploitation data for 40 years (1970–2009; Appendix C9).

During the 2007 escapement goal review, inclusion of escapement data for the past 6 years into the original SEG percentile analysis resulted in a slight increase in both the lower and upper values of the SEG range due to large escapements between 2001–2006 that were in excess of the upper goal range. During this same review, a Ricker model was fit to the brood year data (1970–1999); however, the  $\beta$  parameter was not significant, probably because the large escapements from 2001 to 2006 were not included since their brood years were still incomplete. Therefore,

Table 8, page 29 - Fair, et al., 2010

Table 8.—Simulation results from a brood-interaction model for Kenai River late-run sockeye salmon (numbers of fish in thousands).

Escapement	1969–2005				1979–2005			
	Mean Run	Mean Yield	Yield CV (%)	P<1000	Mean Run	Mean Yield	Yield CV (%)	P<1000
100	641	541	0.64	0.934	746	646	0.63	0.886
150	947	797	0.56	0.768	1,101	951	0.56	0.632
200	1,247	1,047	0.53	0.544	1,448	1,248	0.53	0.416
250	1,539	1,289	0.52	0.380	1,783	1,533	0.53	0.265
300	1,822	1,522	0.51	0.265	2,105	1,805	0.52	0.174
350	2,094	1,744	0.51	0.189	2,410	2,060	0.52	0.122
400	2,352	1,952	0.51	0.140	2,697	2,297	0.52	0.086
450	2,597	2,147	0.51	0.105	2,964	2,514	0.52	0.068
500	2,826	2,326	0.52	0.083	<b>3,209</b>	<b>2,709</b>	<b>0.53</b>	<b>0.056</b>
550	3,038	2,488	0.52	0.071	<b>3,431</b>	<b>2,881</b>	<b>0.53</b>	<b>0.050</b>
600	3,232	2,632	0.52	0.064	<b>3,628</b>	<b>3,028</b>	<b>0.53</b>	<b>0.043</b>
<b>650</b>	<b>3,408</b>	<b>2,758</b>	<b>0.53</b>	<b>0.059</b>	<b>3,800</b>	<b>3,150</b>	<b>0.54</b>	<b>0.040</b>
<b>700</b>	<b>3,565</b>	<b>2,865</b>	<b>0.53</b>	<b>0.053</b>	<b>3,946</b>	<b>3,246</b>	<b>0.54</b>	<b>0.039</b>
750	3,702	2,952	0.53	0.050	4,066	3,316	0.54	0.039
800	3,820	3,020	0.54	0.050	4,160	3,360	0.55	0.039
850	3,917	3,067	0.54	0.050	4,228	3,378	0.56	0.041
900	3,995	3,095	0.55	0.053	4,272	3,372	0.56	0.044
950	4,053	3,103	0.56	0.058	4,291	3,341	0.57	0.050
1,000	4,092	3,092	0.56	0.062	4,287	3,287	0.58	0.056
1,050	4,112	3,062	0.57	0.066	4,261	3,211	0.59	0.064
1,100	4,114	3,014	0.58	0.071	<b>4,214</b>	<b>3,115</b>	<b>0.60</b>	<b>0.071</b>
1,150	4,100	2,950	0.59	0.080	4,149	2,999	0.61	0.083
<b>1,200</b>	<b>4,069</b>	<b>2,869</b>	<b>0.60</b>	<b>0.089</b>	4,067	2,868	0.63	0.100
1,250	4,023	2,774	0.62	0.104	3,969	2,721	0.65	0.124
1,300	3,963	2,665	0.63	0.123	3,858	2,560	0.67	0.150
1,350	3,891	2,543	0.65	0.143	3,736	2,389	0.69	0.180
1,400	3,807	2,410	0.67	0.172	3,606	2,210	0.72	0.225
1,450	3,713	2,267	0.69	0.203	3,470	2,027	0.75	0.261
1,500	3,612	2,117	0.72	0.238	3,334	1,845	0.80	0.318

Note: Model parameters were obtained from regression analyses conducted using brood year 1969–2005, and 1979–2005 data. Ranges corresponding to the original criteria (<6% risk of a yield <1 million salmon; Carlson et al. 1999) used to establish the SEG range are indicated in bold. Ranges corresponding to escapement needed to produce 90100% of maximum yield (assuming a constant escapement goal policy) are shaded.

Table 9, page 30 - Fair, et al., 2010

Table 9.—Markov yield table for Kenai River late-run sockeye salmon constructed using data from brood years 1969–2005 (numbers in thousands of fish).

Escapement		Mean	Mean	Return per	Yield	
Interval	n	Spawners	Returns	Spawner	Mean	Range
0–200	3	120	679	5.7	559	358–871
100–300	3	165	798	5.0	633	449–871
200–400	2	292	1,055	3.6	763	578–948
300–500	4	414	2,180	5.1	1,766	580–3,419
400–600	9	495	2,450	5.0	1,955	580–3,419
500–700	8	555	3,048	5.3	2,493	999–6,393
600–800	8	724	4,798	6.6	4,075	788–8,697
700–900	7	771	4,731	6.1	3,960	788–8,697
800–1,000	5	931	3,458	3.8	2,527	698–4,840
900–1,100	5	971	3,289	3.4	2,318	698–4,840
1,000–1,200	3	1,148	3,483	3.0	2,335	1,377–3,084
1,200–1,400	3	1,343	2,863	2.1	1,520	513–2,301
>1,300	7	1,623	4,190	2.5	2,566	513–8,396

**Table 1.** Kenai sockeye salmon brood table calculated using DIDSON-adjusted Bendix sonar estimates in an age composition catch allocation model. Genetic estimates of stock-specific harvests used for some age classes returning from the 1999-2006 year classes.

RC35

Brood Year	Spawners	Recruits
1968	115.545	960.170 — 844,625
1969	72.901	430.947 — 358,046
1970	101.794	550.923 — 449,129
1971	406.714	986.397
1972	431.058	2547.851 — 2,116,793
1973	507.072	2125.986 — 1,618,914
1974	209.836	788.067 — 578,231
1975	184.262	1055.374 — 811,112
1976	507.440	1506.075 — 998,635
1977	951.038	3112.852 — 2,161,814
1978	511.781	3785.623
1979	373.810	1321.707 — 947,897
1980	600.813	2675.007 — 1,938,265
1981	527.553	2465.818
1982	755.413	9591.200
1983	792.368	9489.648
1984	446,397	3865.134
1985	573.611	2592.968
1986	546.614	2174.842
1987	1982.501	10378.573 — 8,396,072
1988	1173.656	2550.942 — 1,377,286
1989	2027.299	4480.888 — 2,453,589
1990	730.471	1518.983 — 788,512
1991	756.348	4444.531 — 3,688,183
1992	1188.434	4272.741 — 3,084,307
1993	992.096	1690.264 — 698,168
1994	1307.269	3053.461 — 1,746,192
1995	771.935	1900.509
1996	916.244	2262.667
1997	1326.202	3627.321
1998	877.434	4466.351
1999	916.047	5755.767 — 4,839,720
2000	668.510	7068.840 — 6,400,330
2001	713.484	1706.352 — 992,868
2002	1081.577	3625.363 — 2,543,786
2003	1395.432	1908.893 — 513,461
2004	1678.521	3229.841 — 1,551,320
2005	1646.987	2650.255 — 1,003,268
2006	1876.088	
2007	957.584	
2008	704.154	
2009	876.593	
	1194.883	

Roland Man Kenai Sockeye



## Kenai River Late Run Sockeye (LRS) Salmon Escapement Goals and Lost Yields

### Introduction

This RC will discuss the lost yields associated with escapement goal options. This type of lost yield analysis is commonly used in financial planning, agricultural crop production, livestock and the forest industry. This analysis graphically allows the Board of Fish (BOF) managers and the general public to quickly assess the lost yield effects of different escapement goals and their predicted effects on future yields (harvests).

### Data Sources and Significant Differences

The data used in found on Table 8, page 29 of the Review of Salmon Escapement Goals in Upper Cook Inlet, Alaska, 2011, No. 10-06. See Table 8 attached. Table 8 provides the data and describes the simulation results from a brood-interaction model for Kenai River late-run sockeye salmon (numbers of fish in thousands). The mean run sizes shown in columns 2 and 6 and the mean yields (harvests) in columns 3 and 7. The mean yields are entered at 50,000 escapement intervals. These escapement intervals (column 1) are the inputs, stocking rates or investments. While the mean runs (columns 2 and 6) and mean yields (columns 3 and 7) are the expected returns on investment. There are two data sets, 1969-2005 and 1979-2005, that have different yields (harvests) at the same escapement level. Example: in the 1979-2005 data series, the 950,000 escapement provides for a 3,341,000 yield (harvest), while in the 1969-2005 data series, the 950,000 escapement provides for a smaller, 3,103,000 yield (harvest). See Table 8, page 29 – Fair, et al., 2010. The difference bring that the 1979-2005 data series always produces a larger annual (3,341,000 – 3,103,000) yield (harvest).

### Data Calculations of Lost Yields

Using the 1969-2005 data series from Table 8, (Fair, et al., 2010) column 3, mean yields with an MSY escapement of 950,000 yields an average of 3,103,000 sockeyes. This highest yield, 3,103,000, is subtracted from yields at all escapements. See Table 1, column 5 attached. These lost yield values were graphed and occur in Figure 1.

- Example 1 – For escapement at 950,000, the MSY point is 3,103,000 less 3,103,000 equals 0 lost sockeye yield.



- Example 2 – Escapement at 1,200,000 provides for a mean yield of 2,869,000 less 3,103,000 (MSY) yield equals an annual lost yield of -234,000 sockeyes.
- Example 3 – Escapements of 1,400,000 provides for a mean yield of 2,410,000 less 3,103,000 (MSY) yield equals an annual lost yield of -693,000 sockeyes.

In Table 1, column 5, all lost yields are calculated at each level of escapement. As seen in Figure 1, as escapements occur below and above MSY (950,000), the yields decline gradually and then drop dramatically as escapements move away from the MSY value.

Using the 1979-2005 data series from Table 8 (Fair, et al., 2010), column 7 describes the sockeye yields at all escapements. Table 2, column 5 takes these numerical values and calculates the lost yields at all escapement levels when MSY equal to 850,000 spawners with a maximum yield of 3,378,000 sockeyes. As seen in Table 2, column 5, the MSY of 3,378,000 were subtracted from all yields to generate a lost yield value. These lost yield values were graphed and occur in Figure 2.

#### **Plotting of Escapement Goal Options on Lost Yield Curve 1969-2005**

Figure 3 has the proposed escapement goal of 700,000 – 1,200,000, where MSY is 950,000, plotted on the lost yield curve. Where this escapement goal occurs on the lost yield curve is plotted. The lost yield values are provided as per Table 1: -238,000 at 700,000 and -234,000 at 1,200,000. That is to say that if these escapements occurred, a lost yield of -238,000 or -234,000 can be expected. These lost sockeye yields can be summed to arrive at the overall lost yield index of -481,000. Both of these escapements and subsequent lost yields cannot occur in the same year.

Figure 5 has several escapement goals plotted and their overall lost yield index calculated when MSY escapement equals 950,000.

#### **Plotting of Escapement Goal Options on Lost Yield Curve 1979-2005**

Figure 4 has the proposed escapement goal of 700,000 – 1,200,000, where MSY is 850,000, plotted on the lost yield curve. Where these escapement goals occur on the lost yield curve are plotted, -132,000 at 700,000 and -510,000 at 1,200,000. That is to say that when these escapements occur, a lost yield of -132,000 or -510,000 can be expected. These lost sockeye yields can be summed at arrive at the overall lost yield index of -642,000. Both of these escapements and subsequent lost yields cannot occur in the same year.



Figure 6 has several escapement goals plotted when MSY escapement equals 850,000.

For the convenience of the reader, most escapement goals are plotted and their unique lost yield values are calculated for both, 850,000 MSY and 950,000 MSY. See Figures 5 and 6.

### **Lost Yield Curve to Assess Escapements Above 1,200,000 – 1969-2005**

On the 1969-2005 data series, Figure 5, at 950,000 escapement, MSY equals 3,103,000. Any combination of escapements, OEG, in-river, management error or political influence that ends with an escapement of 1,400,000 sockeyes will also produce a lost yield potential of -693,000 sockeyes per year. This equates to an annual loss of \$35,000,000 to the Kenai/Alaskan/USA economy. Just to be clear, escapements of 1,400,000, or 450,000 above the 950,000 MSY value, costs us all \$35,000,000 annually. Whereas a series of 1,200,000 escapements produce, on average, a loss of -234,000 sockeyes, equating to an annual loss of \$15,000,000 to the Kenai/Alaskan/USA economy. Similar losses occur as the minimum escapement goals are not met.

### **Lost Yield Curve to Assess Escapements Above 1,200,000 – 1979-2005**

On the 1979-2005 data series, Figure 6, at 850,000 escapement, MSY equals 3,378,000. Any combination of escapements, OEG, in-river, management error or political influence that ends with an escapement of 1,400,000 sockeyes will also produce a lost yield potential of -1,168,000 sockeyes per year. This equates to an annual loss of \$58,000,000 to the Kenai/Alaskan/USA economy. Just to be clear, escapements of 1,400,000, or 550,000 above the 850,000 MSY value, costs us all \$58,000,000 annually. Whereas a series of 1,200,000 escapements produce, on average, a loss of -510,000 sockeyes, equating to an annual loss of \$25,000,000 to the Kenai/Alaskan/USA economy. Similar losses occur as the minimum escapement goals are not met.

### **Precautionary Approach**

Precautionary Approach – In reviewing the Departments documents, we have noticed that there are many mathematical and statistical errors, unexplained leaps in logic, unsupported conclusions and recommendations.

Set of measures taken to implement the Precautionary Principle. A set of agreed effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent





possible, taking explicitly into account existing uncertainties and the potential consequences of "being wrong."

**UCIDA Recommendations - 1969-2005 data set**

Kenai River LRS:

BEG Goal - **650,000 - 950,000**

OEG - **500,000 - 1,000,000** exists currently

In-River **never to exceed 1,000,000 + 150,000** harvest above the sonar

**UCIDA Recommendations - 1979-2005 data set**

Kenai River LRS:

BEG Goal - **500,000 - 1,000,000**

OEG - **500,000 - 1,000,000** exists currently

In-River **never to exceed 1,000,000 + 150,000** harvest above the sonar

## Kenai River

ADF&G adopted the current escapement goal range of 500,000–800,000 in 1999. In 2005 the goal changed from a BEG to an SEG (Clark et al. 2007). The goal does not include hatchery-produced sockeye salmon passing through the Hidden Creek weir. Results from this review use DIDSON as the estimate of inriver abundance,

Over the past 43 years, Kenai River sockeye salmon escapements ranged from about 73,000 to about 2.0 million (Figure 7, Appendix C6). During this same time span, recruit/spawner estimates ranged from approximately 1.4 to 12.7 (Figure 7). The second highest estimated escapement level occurred in 1987 and produced recruits at the rate of about 5 to 1, while a similar escapement in 1989 produced recruits at a rate of about 2 to 1. The highest estimate of recruits/spawner (12.7) came from the 1982 escapement (755,413).

Using the full data set, 1969–2005, the general Ricker model was significant ( $P < 0.001$ ) for the Kenai sockeye salmon spawner-return data. However, the density-dependent parameter ( $\beta$ ) did not significantly differ from zero ( $P = 0.157$ ), and  $\gamma$  was not different from one ( $P = 0.897$ ; Table 6). For the classic Ricker model (Figure 8),  $\beta$  was significantly different from zero ( $P = 0.004$ ), but a lag-1 autoregressive ( $\phi$ ) parameter was not significant ( $P = 0.079$ ; Table 6). The density-dependent parameter ( $\gamma$ ) in the Cushing model significantly differed from one ( $P = 0.014$ ). Finally, the density-dependent parameters in the classic Ricker model with a single brood-interaction term (Carlson et al. 1999) did not significantly differ from zero ( $P \geq 0.100$ ). A stepwise regression procedure revealed a brood-interaction model describing the stock-recruitment relationship. The  $\beta$  parameter was significantly different from zero ( $P = 0.006$ ) in a 3-parameter model, but  $\gamma$  was not significantly different from one ( $P = 0.824$ ). A simplified 2-parameter brood-interaction model best described ( $P < 0.001$ ) the stock-recruitment relationship for this stock (Table 6, Figure 9). The improved fit of the simple brood-interaction model over the classic Ricker was primarily due to brood years 1988–1990, which followed the largest escapements ever observed in 1987 and 1989 (Figure 10). The improved fit of the simple brood-interaction model was also due to brood years 2004 and 2005, produced by the 3<sup>rd</sup> and 5<sup>th</sup> largest escapements.

Using the 1979–2005 data, the Ricker and Cushing models did not fit the spawner-return data for Kenai River sockeye salmon (Table 7). For the classic Ricker model,  $\beta$  was significantly different from zero ( $P = 0.016$ ), but the  $R^2$  for a regression of observed versus predicted adult returns was only 0.06. For the autoregressive Ricker model,  $\beta$  did not significantly differ from zero ( $P = 0.839$ ), but the lag-1 autoregressive parameter was significantly different from zero ( $P = 0.003$ ). For the autoregressive Ricker model, the  $R^2$  for a regression of observed versus predicted adult returns increased to 0.23, and the likelihood ratio test demonstrated a significant ( $P < 0.05$ ) improvement in model fit over the classic Ricker model. For the classic Ricker model with a single brood-interaction term, the first density-dependent parameter ( $\beta_1$ ) did not significantly differ from zero ( $P = 0.088$ ), but  $\beta_2$  was different from zero ( $P = 0.021$ ). As before, a stepwise regression procedure revealed a simplified 2-parameter brood-interaction model that best fit the spawner-return data (Table 7). Likelihood profiles of escapements that produced high sustained yields further showed the simple brood interaction model as the best described stock-recruitment relationship for this stock (Figure 11).

Applying the same criteria (<6% risk of a yield <1 million sockeye salmon) used to establish the current SEG (Carlson et al. 1999), simulations of the brood-interaction model using parameters

from analysis of the 1969–2005 data suggest a goal range of 650,000–950,000 (Table 8). Simulations using parameters from analysis of the 1979–2005 data suggest a goal range of 500,000–1,000,000. Using escapements that represent 90–100% MSY (1969–2005: MSY = 3,103,000; 1979–2005: MSY = 3,378,000), the ranges were 700,000–1,200,000 and 650,000–1,100,000 spawners for the full and reduced data sets (Table 8).

A simple 2-parameter brood-interaction model (Carlson et al. 1999) best fit the Kenai River sockeye salmon spawner-return data based on  $R^2$  and AIC values (Tables 6 and 7). Edmundson et al. (2003) hypothesized that brood interactions likely result from food limitation and subsequent mortality of fry immediately following emergence and during the first winter. Large fry populations from the previous brood year cause reduced copepod (zooplankton) density the following spring, limiting food resources for subsequent fry. The effect that fry grazing on copepod biomass has the following spring is caused by the 2-year lifecycle of the dominant copepod species in this system.

Using the full data set (1969–2005), a Markov yield analysis indicated highest (>3.9 million) mean yields occur within a range of 600,000–900,000 spawners (Table 9), and that escapements from 500,000–1,200,000 also produce high (>2.3 million) yields. Escapements below 400,000 salmon never produced yields exceeding 948,000. The highest yields (Figure 12) originated from escapements of 755,000, 792,000, and 1,983,000 sockeye salmon (brood years 1982, 1983, and 1987). When escapements exceeded 900,000, yields were highly variable, ranging from 513,000–8,396,000. In this updated data set, 4 year classes (2002–2005) were added to the upper escapement interval (Appendix C6). Yield from the 2002 year class (2,543,500) was above average (2,459,400), whereas yields from 2003 to 2005 year classes (513,500, 1,551,300, and 1,003,300) were below average. This pattern of reduced yield from consecutive large escapements is consistent with the brood interaction observed in brood years 1987–1990.

We recommend that the Kenai River late-run sockeye salmon SEG be set at 700,000–1,200,000 spawners as estimated using the brood-interaction model fit to the full data set. The related inriver goal will be assessed with DIDSON. The range approximately represents the escapement that on average will produce 90–100% of MSY. We also recommend using the 90–100% range to set the SEG because it results in a broader interval with the highest predicted yield near its center. Basing a goal range from a model's prediction of escapements that produce 90–100% MSY is common practice throughout Alaska. Finally, this goal is supported by a plot of yield versus escapement, showing that escapements in this range generally produce the highest yields (Figure 12).

### **Russian River Early Run**

The Russian River sockeye salmon early run has an SEG of 14,000–37,000, developed in the 2001/2002 review using the 25<sup>th</sup> and 75<sup>th</sup> percentile of the 1965–2000 weir escapement data. We currently have escapement, total return, and exploitation data for 40 years (1970–2009; Appendix C9).

During the 2007 escapement goal review, inclusion of escapement data for the past 6 years into the original SEG percentile analysis resulted in a slight increase in both the lower and upper values of the SEG range due to large escapements between 2001–2006 that were in excess of the upper goal range. During this same review, a Ricker model was fit to the brood year data (1970–1999); however, the  $\beta$  parameter was not significant, probably because the large escapements from 2001 to 2006 were not included since their brood years were still incomplete. Therefore,



Table 1. Lost Yields at various escapement levels 1969-2005

Escapement	Mean Run	Mean Yield	MSY Yield	Lost Yield	P < 1000	
100	641	541	3,103	-2,562	0.934	0.066
150	947	797	3,103	-2,306	0.768	0.232
200	1,247	1,047	3,103	-2,056	0.544	0.456
250	1,539	1,289	3,103	-1,814	0.380	0.62
300	1,822	1,522	3,103	-1,581	0.265	0.735
350	2,094	1,744	3,103	-1,359	0.189	0.811
400	2,352	1,952	3,103	-1,151	0.140	0.86
450	2,597	2,147	3,103	-956	0.105	0.895
500	2,826	2,326	3,103	-777	0.083	0.917
550	3,038	2,488	3,103	-615	0.071	0.929
600	3,232	2,632	3,103	-471	0.064	0.936
<b>650</b>	<b>3,408</b>	<b>2,758</b>	3,103	-345	<b>0.059</b>	<b>0.941</b>
<b>700</b>	<b>3,565</b>	<b>2,865</b>	3,103	-238	<b>0.053</b>	<b>0.947</b>
<b>750</b>	<b>3,702</b>	<b>2,952</b>	3,103	-151	<b>0.050</b>	<b>0.95</b>
<b>800</b>	<b>3,820</b>	<b>3,020</b>	3,103	-83	<b>0.050</b>	<b>0.95</b>
<b>850</b>	<b>3,917</b>	<b>3,067</b>	3,103	-36	<b>0.050</b>	<b>0.95</b>
<b>900</b>	<b>3,995</b>	<b>3,095</b>	3,103	-8	<b>0.053</b>	<b>0.947</b>
<b>950</b>	<b>4,053</b>	<b>3,103</b>	3,103	0	<b>0.058</b>	<b>0.942</b>
1,000	4,092	3,092	3,103	-11	0.062	0.938
1,050	4,112	3,062	3,103	-41	0.066	0.934
1,100	4,114	3,014	3,103	-89	0.071	0.929
1,150	4,100	2,950	3,103	-153	0.080	0.92
1,200	4,069	2,869	3,103	-234	0.089	0.911
1,250	4,023	2,774	3,103	-329	0.104	0.896
1,300	3,963	2,665	3,103	-438	0.123	0.877
1,350	3,891	2,543	3,103	-560	0.143	0.857
1,400	3,807	2,410	3,103	-693	0.172	0.828
1,450	3,713	2,267	3,103	-836	0.203	0.797
1,500	3,612	2,117	3,103	-986	0.238	0.762



Table 2. Lost Yields at various escapement levels 1979-2005

Escapement	Mean Run	Mean Yield	MSY Yield	Lost Yield	P < 1000	
100	746	646	3,378	-2,732	0.886	0.114
150	1,101	951	3,378	-2,427	0.632	0.368
200	1,448	1,248	3,378	-2,130	0.416	0.584
250	1,783	1,533	3,378	-1,845	0.265	0.735
300	2,105	1,805	3,378	-1,573	0.174	0.826
350	2,410	2,060	3,378	-1,318	0.122	0.878
400	2,697	2,297	3,378	-1,081	0.086	0.914
450	2,964	2,514	3,378	-864	0.068	0.932
500	<b>3,209</b>	<b>2,709</b>	3,378	-669	<b>0.056</b>	0.944
550	<b>3,431</b>	<b>2,881</b>	3,378	-497	<b>0.050</b>	0.95
600	<b>3,628</b>	<b>3,028</b>	3,378	-350	<b>0.043</b>	0.957
<b>650</b>	<b>3,800</b>	<b>3,150</b>	3,378	-228	<b>0.040</b>	0.96
<b>700</b>	<b>3,946</b>	<b>3,246</b>	3,378	-132	<b>0.039</b>	0.961
<b>750</b>	<b>4,066</b>	<b>3,316</b>	3,378	-62	<b>0.039</b>	0.961
<b>800</b>	<b>4,160</b>	<b>3,360</b>	3,378	-18	<b>0.039</b>	0.961
<b>850</b>	<b>4,228</b>	<b>3,378</b>	3,378	0	<b>0.041</b>	0.959
<b>900</b>	<b>4,272</b>	<b>3,372</b>	3,378	-6	<b>0.044</b>	0.956
<b>950</b>	<b>4,291</b>	<b>3,341</b>	3,378	-37	<b>0.050</b>	0.95
1,000	<b>4,287</b>	<b>3,287</b>	3,378	-91	<b>0.056</b>	0.944
1,050	4,261	3,211	3,378	-167	0.064	0.936
1,100	4,214	3,115	3,378	-263	0.071	0.929
1,150	4,149	2,999	3,378	-379	0.083	0.917
1,200	4,067	2,868	3,378	-510	0.100	0.9
1,250	3,969	2,721	3,378	-657	0.124	0.876
1,300	3,858	2,560	3,378	-818	0.150	0.85
1,350	3,736	2,389	3,378	-989	0.180	0.82
1,400	3,606	2,210	3,378	-1,168	0.225	0.775
1,450	3,470	2,027	3,378	-1,351	0.261	0.739
1,500	3,334	1,845	3,378	-1,533	0.318	0.682

Table 8, page 29 - Fair, et al., 2010

Table 8.—Simulation results from a brood-interaction model for Kenai River late-run sockeye salmon (numbers of fish in thousands).

Escapement	1969–2005				1979–2005			
	Mean Run	Mean Yield	Yield CV (%)	P<1000	Mean Run	Mean Yield	Yield CV (%)	P<1000
100	641	541	0.64	0.934	746	646	0.63	0.886
150	947	797	0.56	0.768	1,101	951	0.56	0.632
200	1,247	1,047	0.53	0.544	1,448	1,248	0.53	0.416
250	1,539	1,289	0.52	0.380	1,783	1,533	0.53	0.265
300	1,822	1,522	0.51	0.265	2,105	1,805	0.52	0.174
350	2,094	1,744	0.51	0.189	2,410	2,060	0.52	0.122
400	2,352	1,952	0.51	0.140	2,697	2,297	0.52	0.086
450	2,597	2,147	0.51	0.105	2,964	2,514	0.52	0.068
500	2,826	2,326	0.52	0.083	3,209	2,709	0.53	0.056
550	3,038	2,488	0.52	0.071	3,431	2,881	0.53	0.050
600	3,232	2,632	0.52	0.064	3,628	3,028	0.53	0.043
650	3,408	2,758	0.53	0.059	3,800	3,150	0.54	0.040
700	3,565	2,865	0.53	0.053	3,946	3,246	0.54	0.039
750	3,702	2,952	0.53	0.050	4,066	3,316	0.54	0.039
800	3,820	3,020	0.54	0.050	4,160	3,360	0.55	0.039
850	3,917	3,067	0.54	0.050	4,228	3,378	0.56	0.041
900	3,995	3,095	0.55	0.053	4,272	3,372	0.56	0.044
950	4,053	3,103	0.56	0.058	4,291	3,341	0.57	0.050
1,000	4,092	3,092	0.56	0.062	4,287	3,287	0.58	0.056
1,050	4,112	3,062	0.57	0.066	4,261	3,211	0.59	0.064
1,100	4,114	3,014	0.58	0.071	4,214	3,115	0.60	0.071
1,150	4,100	2,950	0.59	0.080	4,149	2,999	0.61	0.083
1,200	4,069	2,869	0.60	0.089	4,067	2,868	0.63	0.100
1,250	4,023	2,774	0.62	0.104	3,969	2,721	0.65	0.124
1,300	3,963	2,665	0.63	0.123	3,858	2,560	0.67	0.150
1,350	3,891	2,543	0.65	0.143	3,736	2,389	0.69	0.180
1,400	3,807	2,410	0.67	0.172	3,606	2,210	0.72	0.225
1,450	3,713	2,267	0.69	0.203	3,470	2,027	0.75	0.261
1,500	3,612	2,117	0.72	0.238	3,334	1,845	0.80	0.318

Note: Model parameters were obtained from regression analyses conducted using brood year 1969–2005, and 1979–2005 data. Ranges corresponding to the original criteria (<6% risk of a yield <1 million salmon; Carlson et al. 1999) used to establish the SEG range are indicated in bold. Ranges corresponding to escapement needed to produce 90100% of maximum yield (assuming a constant escapement goal policy) are shaded.

Table 9, page 30 - Fair, et al., 2010

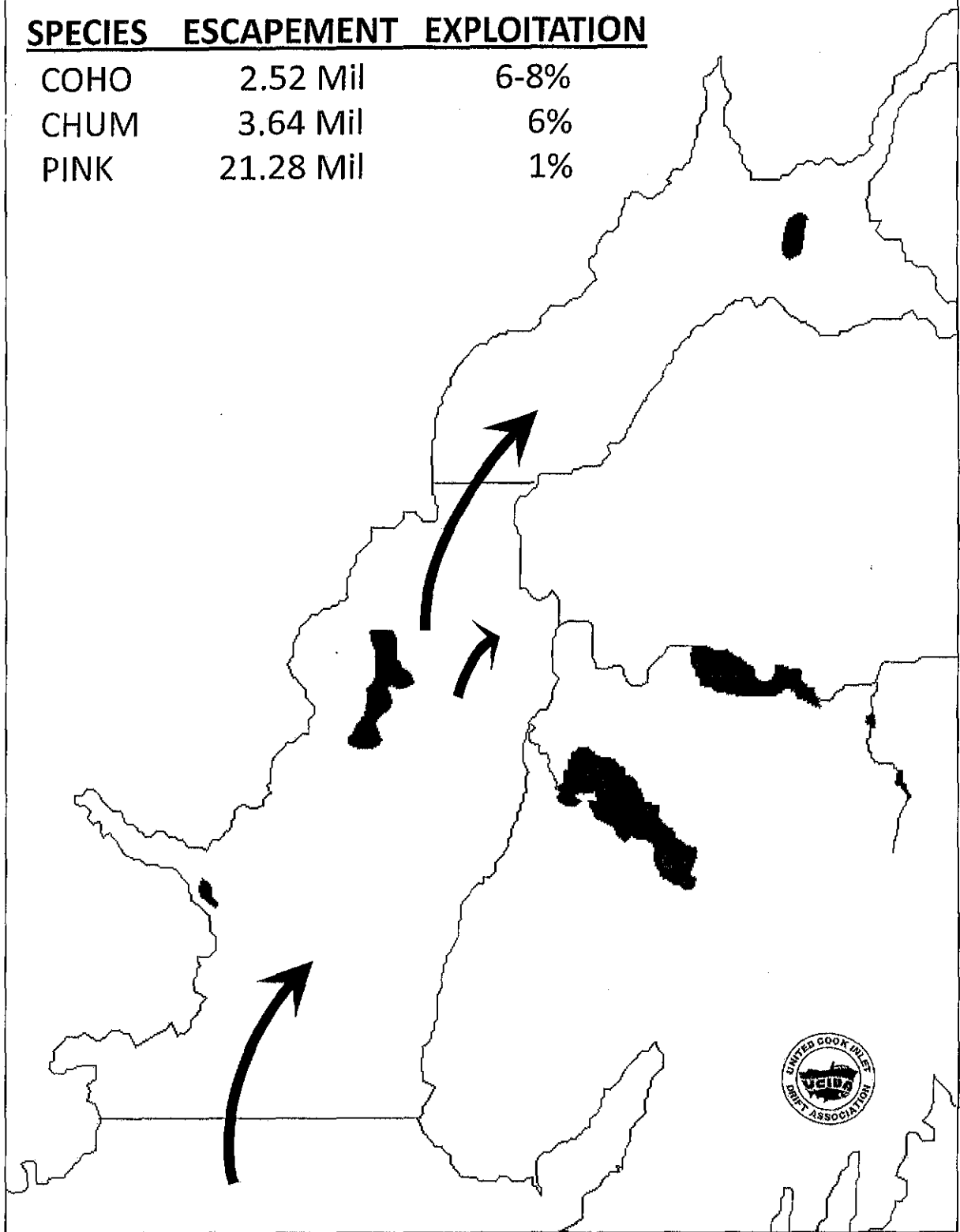
Table 9.—Markov yield table for Kenai River late-run sockeye salmon constructed using data from brood years 1969–2005 (numbers in thousands of fish).

Escapement		Mean	Mean	Return per	Yield	
Interval	n	Spawners	Returns	Spawner	Mean	Range
0–200	3	120	679	5.7	559	358–871
100–300	3	165	798	5.0	633	449–871
200–400	2	292	1,055	3.6	763	578–948
300–500	4	414	2,180	5.1	1,766	580–3,419
400–600	9	495	2,450	5.0	1,955	580–3,419
500–700	8	555	3,048	5.3	2,493	999–6,393
600–800	8	724	4,798	6.6	4,075	788–8,697
700–900	7	771	4,731	6.1	3,960	788–8,697
800–1,000	5	931	3,458	3.8	2,527	698–4,840
900–1,100	5	971	3,289	3.4	2,318	698–4,840
1,000–1,200	3	1,148	3,483	3.0	2,335	1,377–3,084
1,200–1,400	3	1,343	2,863	2.1	1,520	513–2,301
>1,300	7	1,623	4,190	2.5	2,566	513–8,396

LC37

# PIT TAG ESTIMATES ALL COMMERCIAL FISHERIES

<u>SPECIES</u>	<u>ESCAPEMENT</u>	<u>EXPLOITATION</u>
COHO	2.52 Mil	6-8%
CHUM	3.64 Mil	6%
PINK	21.28 Mil	1%



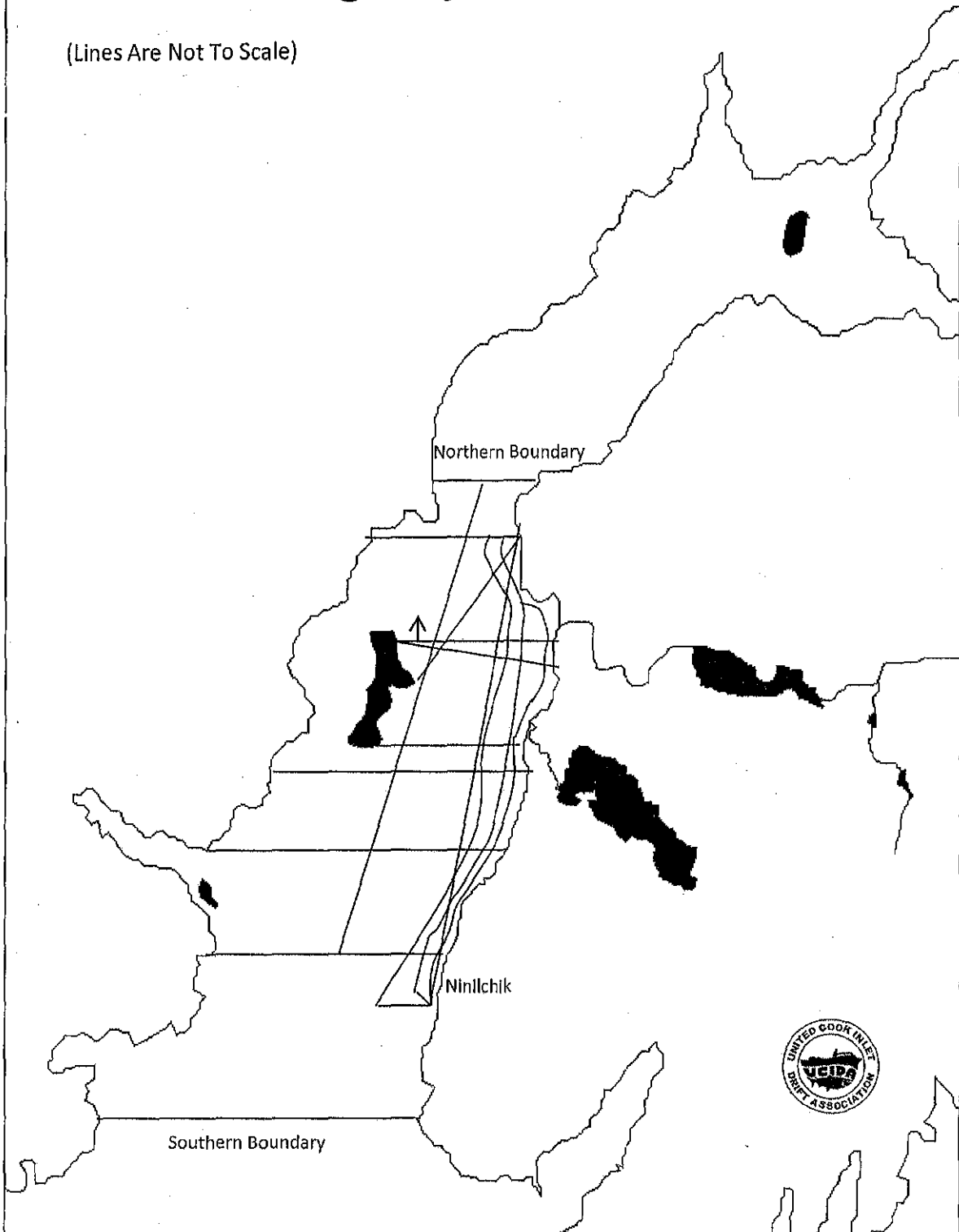
Rolantm 122



2638

# ADF&G Emergency Order Lines

(Lines Are Not To Scale)



Roland man 122

## Drift Harvest Exploitation Rates on the JCL-Su-Yen – KT Stocks

JCL-S-Y Run Timing

at OTF Line

2005	June 27-July 7
2006	July 31
2007	July 16
2008	July 14-18
2009	July 6-16

Peak Harvest of JCL-S-Y

2005	July 11-18
2006	
2007	July 16-19
2008	July 14-17
2009	July 13-16

Drift

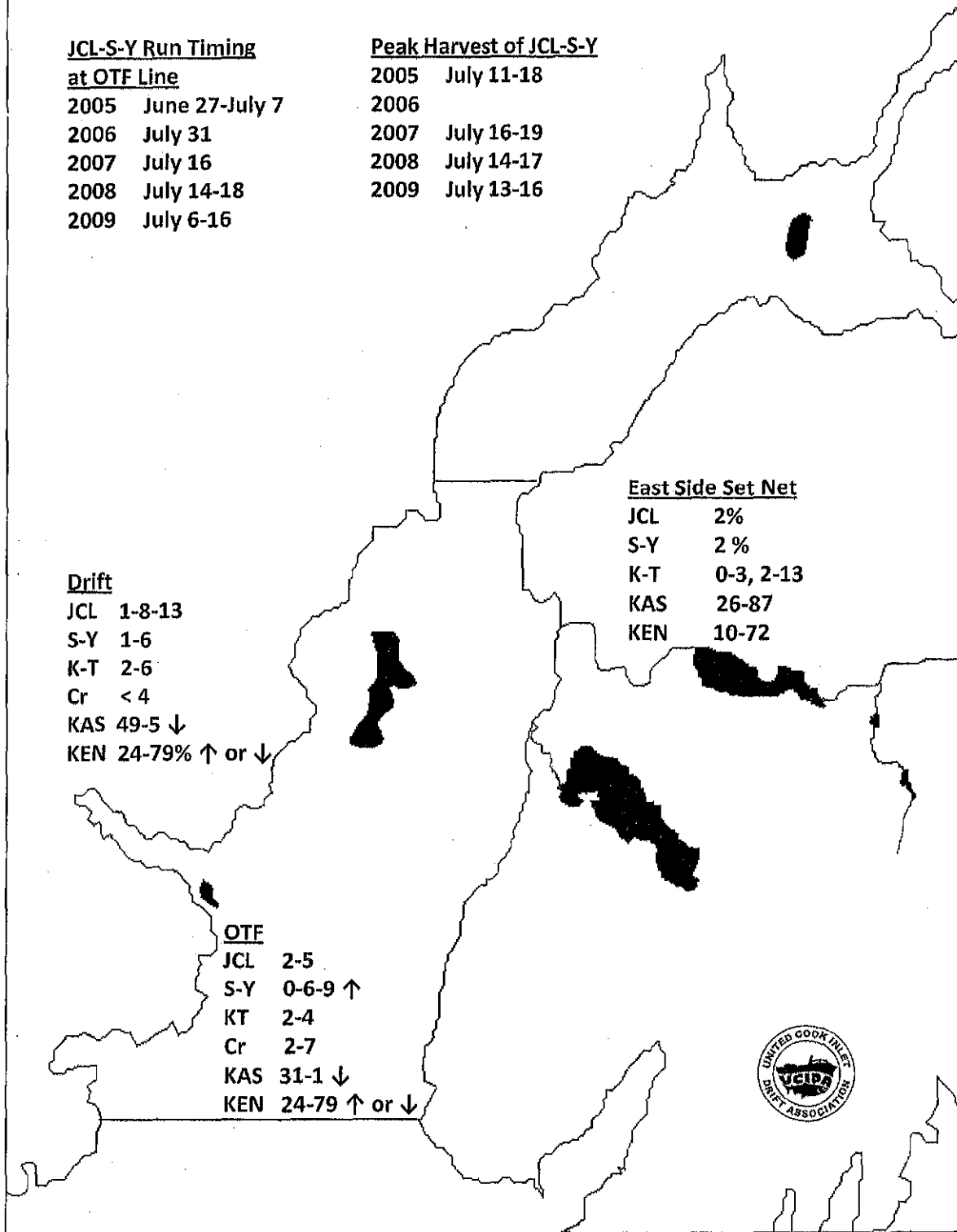
JCL	1-8-13
S-Y	1-6
K-T	2-6
Cr	< 4
KAS	49-5 ↓
KEN	24-79% ↑ or ↓

East Side Set Net

JCL	2%
S-Y	2%
K-T	0-3, 2-13
KAS	26-87
KEN	10-72

OTF

JCL	2-5
S-Y	0-6-9 ↑
KT	2-4
Cr	2-7
KAS	31-1 ↓
KEN	24-79 ↑ or ↓



## Pike Management

1. Have a Board of Fisheries make a finding that pike are an invasive species in the entire Cook Inlet Basin.
2. Legalize all forms, methods and means of pike removal, except the use of poisons and explosives by general public.
3. All pike are "catch & keep" – no "catching & releasing." Consider/recommend instituting a \$5.00 per pike bounty.
4. Rehabilitate and remediate water bodies in the Cook Inlet Basin as best as possible to restore salmonid populations.
5. Develop a predator pike management plan to accommodate specific rehabilitation strategies and practices throughout the Cook Inlet Basin, similar to the Board of Game's predator-intensive management programs.

*Robert Man*

RC 41



Talking Points:

Drift Corridor(s)

Negative Outcomes

1. Huge economic loss to industry/economy
2. Corridors facilitate the build-up of all salmon stocks in Upper Cook Inlet
3. Escapement goals are put at risk (overescapement) in current year
4. Reduced yields in future years
5. Causes very large peak harvests when fishing occurs
6. Harvests exceed processor capacity
7. Quality issues develop
8. No benefits to be gained
  - Pinks - 1% harvest - 99% escapements
  - Chum - 6% harvest - 94% escapements
  - Coho - 5-10% harvest - 90-95% escapements
  - Sockeye - 30% harvest - 70% escapements (Mat-Su)

Robert M. 122

RC 42

Data on Personal Use Fisheries Provided to the Office of  
Representative Stoltze by the Department of Fish & Game

**Ben Mulligan**

---

**Subject:** Personal use fishery information

**From:** Swanton, Charles O (DFG) [mailto:charles.swanton@alaska.gov]

**Sent:** Thursday, February 04, 2010 10:20 AM

**To:** Ben Mulligan

**Cc:** Yuhas, Jennifer S (DFG)

**Subject:** FW: Personal use fishery information

**Chatanika River Personal Use Whitefish Spear Fishery Results**

Year	Permits		Number of Households that Fished	Total Whitefish Harvest	Average Harvest/ Permit
	Issued	Returned			
2007	100	97	52	267	5.13
2008	200	191	92	522	5.67
2009*	200	174	113	682	6.04

\* 2009 results are preliminary

Upper Cook Inlet including Kenai Dip Net, Kasilof Dip Net, and Kas Gillnet (all fisheries are covered under the same permit)

Year	Permits Issued	Mean number of individuals per permit	Number of Individuals Represented	Total Salmon Harvested	Mean Harvest per Household	Mean Harvest per Individual
2006	18,563	3.0	56,198	234,391	12.6	4.2
2007	23,046	3.0	70,065	364,334	15.8	5.2
2008	23,722	3.0	70,903	336,040	14.2	4.7

Chitna Dipnet

Year	Permits Issued	Individual Permits	Household Permits	Mean number of individuals per permit	Number of Individuals Represented	Total Salmon Harvested	Mean Harvest per Household	Mean Harvest per Individual
2006	8,642	1,357	7,285	2.9	25,203	130,515	15.0	5.0
2007	8,474	1,305	7,169	2.9	24,495	131,217	15.5	5.4
2008	8,258	1,256	7,002	2.9	23,922	86,476	10.5	3.6

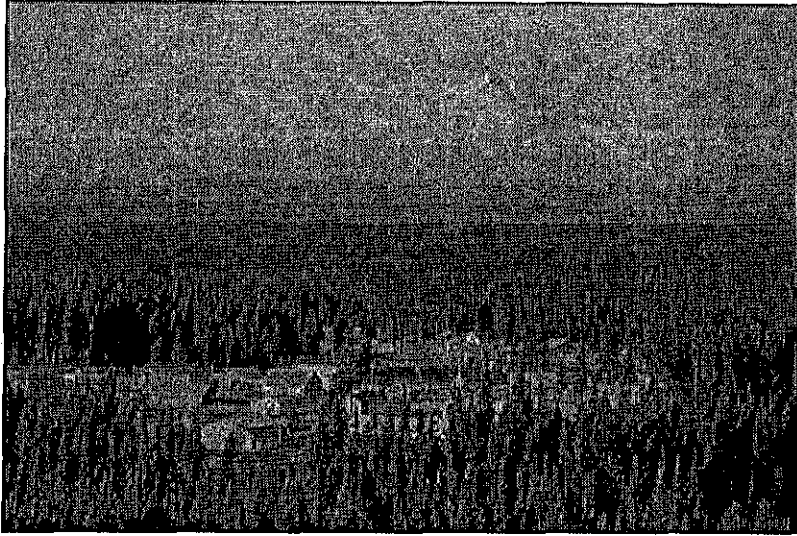
Total for Upper Cook Inlet and Chitna

Year	Permits Issued	Mean number of individuals per permit	Number of Individuals Represented	Total Salmon Harvested	Mean Harvest per Household	Mean Harvest per Individual
2006	27,207	3.0	81,401	364,906	13.4	4.5
2007	31,520	3.0	94,560	495,551	15.7	5.2
2008	31,980	3.0	94,825	422,516	13.2	4.5

## Nikolaevsk

(pronounced NICK-oh-lyvsk)

The tiny picturesque village of Nikolaevsk is a community of nearly 500 people located on the southern Kenai Peninsula in south Central Alaska, about 20 miles north of Homer. A 6-mile gravel road connects this small town to Anchor Point and the Alaska road system. Nikolaevsk is located in the Homer Recording District and the Kenai Peninsula Census Area. The village encompasses 36.3 square miles of land. Winter temperatures range from 14 to 27; summer temperatures vary from 45 to 65. Average annual precipitation is 24 inches.



Russian culture thrives in Nikolaevsk, an almost hidden village where Russian is the de facto language and the residents, members of the Old Believers branch of the Russian Orthodox Church, still dress as if they were in Siberia in the 1700s. The Old Believers split from the church in the 17th century when Patriarch Nikon ordered a number of reforms to Russian Orthodoxy. Some changes were minor, such as the number of fingers used to make the sign of the cross, but the Old Believers considered any

change to the rites heretical and refused to accept the new practice, continuing with the old rites. The Russian Orthodox Church excommunicated their defiant members and the czars persecuted them. Many left Russia or moved to the Siberian taiga where they could pass the old rites down to their children in peace. But the Bolshevik Revolution of 1917 forced many of the remaining Old Believers out of Russia for good, as the Soviets tried to destroy the old religion and the collective farms threatened their livelihood.

About 300 Old Believers left Siberia in 1945 to take up residence in Manchuria, China. When that country fell to communism, the group sought a new home. Several South American countries took in the Old Believers. In Brazil, the government did not interfere with their religion, but many of the families found it difficult to make a living. Next, they came to the United States, establishing themselves primarily in Woodburn, located in Oregon's Willamette Valley in the early 1960s.

As several years passed by and some of the families began to establish firm financial footing for themselves, another problem drew their attention. Young people in the community, through a combination of influences from American schools and society and the restrictiveness of the Staroveri traditions, were beginning to fall away from the old ways. A few community elders viewed the situation with sufficient alarm that they began seriously considering other more isolated locations for their parishes. One of them discovered that government land was available in the Kenai Peninsula area of Alaska, where the fishing was reputed to be outstanding. The first Old Believer settlers on the Kenai Peninsula received a grant from the Tolstoy Foundation in New York and purchased 640 acres of land on the peninsula in 1967. After initial investigations by four men, five families moved up to Alaska

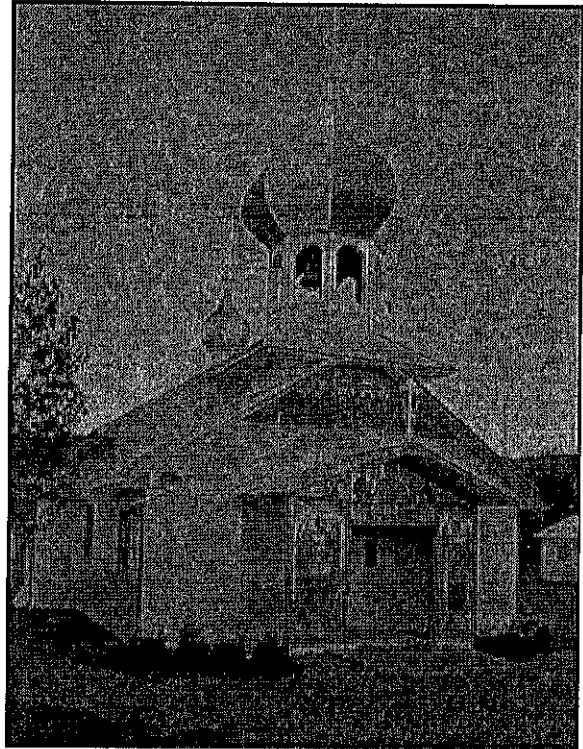
*Lenny Reato*



and began building a community there in the summer of 1968. Ten adults, twelve children, eight cows and four calves started Nikolaevsk. Solomia Kalugin, Tatiana Martushev and Kondraty Fefelov\* were among those first settlers.

This unique community of expatriate Russians descended from ancestors who refused to conform to changes in their traditional Orthodox religion. After almost 16 generations of seeking places to live where they could preserve their culture, they started anew, and called their settlement Nikolaevsk in honor of St. Nicholas, the patron saint of the town's church. Alaskan neighbors refer to it as "Russian Village."

During the first summer, the families camped in tents on an "oil pan," a bed of gravel about a hundred yards in diameter, originally laid down in preparation for drilling on the spot. The men began constructing an access road to their village from the nearby roads leading inland from Anchor Point. They then began laying out the plan for the village itself, and logged out an area for it in the spruce forest. The first five cabins in the village were built from the initial trees felled in the area, enabling the small band to spend the first winter there.



Some of the families who had come later were unable to withstand the cold winters and had to return to Oregon. However, the majority prevailed and the village continued to grow each year, with the population stabilizing around 1974. Russian Old Believers from China, Brazil, Iran, Turkey, Australia and other parts of the United States moved to Nikolaevsk. By the second year, homes had running water and electricity. When the growing season in the Alaskan summers proved too short for the production of various favorite vegetables, the Old Believers built greenhouses with wood-fueled stoves in them to extend the season.

With cooperative efforts of retired Army Brigadier General B.B. Talley, 59 Old Believers prepared for and successfully obtained American citizenship. On June 19, 1975, a ceremony for their naturalization took place in the Anchor Point School gymnasium with Judge James A. von der Heydt presiding. In 1979 a second group of Old Believers took the oath of citizenship and became American citizens. Since then, religious and cultural concerns prompted some families to fight against assimilation and leave Nikolaevsk to form new communities.

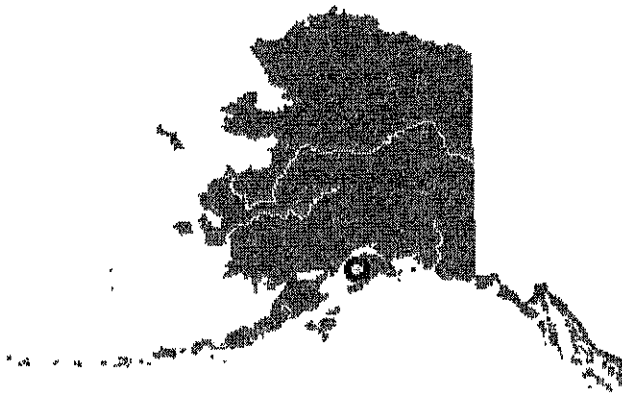
The initial settlers tried to limit their interaction with outsiders so they could better keep the old rites, even using separate dishes for outsiders who dined with them. They erected a sign that stood at the end of the dirt road: "Village of Nikolaevsk. Private Property. Road Closed."

Today, the sign is gone, the road is paved and the village is more welcoming to outsiders. The town has modernized. Economically and politically, the residents are integrated.

Socially, however, although polite and highly hospitable, they still maintain a sense of social separatism.

This new openness was sped by a religious schism in the village in the early 1980s. Some of the villagers decided to reinstate the priesthood into their religion, a major change by the Old Believers, whose priests had died out centuries ago. With Russian Orthodox bishops practicing within the reformed church, there was nobody to ordain new clergy according to the old rites. An Old Believer bishop, Sergei Lipolit came from Romania in 1983 and brought back the priesthood. Bishop Lipolit built the Church of St. Nikolas in 1983, then the next two years painting holy icons for inside and outside the church. He also painted holy icons for the Old Rite Orthodox Churches in Oregon and Australia. Lipolit later became a bishop for the Australian-Canadian-American Diocese. His arrival in Nikolaevsk however, created a significant rift within the community. Having clergy to provide spiritual guidance helped in the villager's integration to some extent, while others rejected the return of priests. Many of these priestless Old Believers moved away from Nikolaevsk to establish new communities deeper in the Kenai Peninsula.

Old Believers are having to adapt their culture to their surroundings in order to survive. Many residents are employed in the Anchor Point and Homer areas. A majority of the Russian Old Believers depended on commercial fishing as an income while many of the women worked in the fish processing plants. Uncertainty in the fishing industry, however, with its feast-or-famine price fluctuations, has caused a growing number of Old Believers to seek other jobs, such as construction, and move to new communities outside their Russian village.



Nikolaevsk is comprised of 490 residents, about 50 dwellings, two stores - one of them, the Fefelov Mercantile, a general store/post office, is the only year-round business. Some of the men constructed their own fishing boats after working at a Homer marina where they learned the trade. They set up their own shop in the village by 1972, building boats not only for themselves, but for non-Old Believers, as well.

The first school opened in an 8-by-20-foot trailer in 1972. Today, Nikolaevsk has its own combined

elementary/middle/high school, built in 1976 and renovated in 1981. It is a dual language school with Russian spoken. In 2002, the 12-mile road inland from Anchor Point was paved and a state-of-the-art gymnasium was added to the school. Significantly under capacity, the 250-student school now serves about 90 students in kindergarten through 12th grade. The village remains primarily Old Believer, though about 25 percent of the students are now non-Old Believer as the demographics of the village change.

Russian village schools operate on an alternative school calendar. While schools in the larger towns operate on a schedule similar to that of schools in the Lower 48, the village schools run according to the Old Believers' religious calendar, which includes several holidays of varying degrees. Russian classes are central to students' education, mostly because it is

the language they speak at home. Most students in the village now come to school speaking English, rather than Russian, but all students graduate speaking two languages.

While the residents of the Old Believer village struggled to maintain their own ways of life, though, they also were subject to the outside world's expectations. Previous to their arrival in the United States, their children may not have had formal education. Within villages, youngsters learned to read the Bible and learned enough not to be taken advantage of. But their residence in America meant that by law, the children now had to be in school. The first generation of children in Alaska received at least an eighth-grade education. Until 1980, students attended classes through the ninth grade, then began their adult lives. Now, more students are postponing marriage, graduating high school and even venturing Outside for college.

4.9% of the population are Alaska Native or part Native. The community includes Russian Orthodox, Russian Old Believers (Old Right Believers) and some non-Russians. The Old Believers in this area lead a family-oriented, self-sufficient lifestyle. They use modern utilities, and food sources are from gardening, small livestock, fishing and hunting. The villagers stock up on meat and fish for the winter. Light trapping for beaver, muskrats, minks, and weasels adds to the winter stores. They also hunt deer, elk and caribou. In addition, the Old Believers raise their own turkeys, ducks, geese, chickens, beef, and pork. During the summer entire families go subsistence fishing to get the limit per person. Some of the people fish only in the summer for salmon and work on construction during the winter in Anchorage. Others fish year round. The Old Believers freeze, smoke, dry, and can salmon.

Families are typically very large with 8 to 12 children. Traditional clothing is worn, Russian is the first language, and the church dictates that males do not shave. Boys typically marry at age 15 or 16, while girls are married at 13 or 14. In keeping with the Old Rite, three elements given at baptism—the shirt, belt, and cross—must be worn at all times by the faithful. Hence men and boys are seen in the long Russian shirt, or *rubashka*, girded with a belt. Women and girls lengthen the shirt to form a blouse/slip combination and wear it under a jumper, or *sarafan*, sometimes with a peasant apron. The Old Believers adhere strictly to the church rituals of prolonged fasting periods, long church ceremonies, and do not allow outsiders or those not "in union" to eat with them in their homes or attend church services.

A deep concern has arisen that the village will lose its Russian language and culture as the children take on American ways. Keeping the traditional language is central to preserving culture, but many of today's generation won't speak in Russian and have no interest in church because they don't understand the Old Slavonic read at the services. The Old Believers no longer fear persecution. But other factors - cultural integration, internal divisions and an ailing fishing industry - are changing the way they've lived for centuries.

I am a relatively new participant in this fishery, but have had the opportunity to speak and/or fish with many who have been in it their entire lives, some of them having three generations of their family depending on it for their livelihoods.

When I and some of my parishioners first started discussing the commercial fishery that supports, either directly or indirectly, so many families on the Kenai Peninsula, I was immediately struck by the similarities between these small family operations and the family farm and ranch that I grew up on in South Texas. Our lives on that farm and ranch were very similar to the lives of the commercial fishing families that I have come to know and respect on the Peninsula.

I was officially introduced to the fishery by one of my parishioners who allowed me to deckhand for him and taught me the basics of the industry. This allowed me to supplement my parish income at a time when funds were very tight, but at the same time I was troubled by the hardship I saw thrust upon those in the industry when they were not allowed to fish or were highly restricted on where they could fish due to poor returns resulting from over-escapement. I say this because the state's own research appears to demonstrate that the thing that impacts returning numbers most severely is over-escapement into the rivers. This does not surprise me since having grown up in agriculture I learned very early that any natural resource has a limited carry capacity, whether that resource is a wheat field, pasture, river, or lake. What I see as a disregard for this simple biological reality by some in our communities and state is what ultimately compelled me to travel to Anchorage this week and testify before your board.

I have parishioners, neighbors, and fellow volunteer firefighters and Emergency Medical Technicians (EMTs) who depend on the Upper Cook Inlet Fishery for their livelihoods and when the number of returning salmon is negatively impacted by over-escapement it ripples through my entire community as well as the food supply for the entire nation. These facts should compel everyone involved in the fishery to manage it to achieve the highest possible return every year by avoiding over-escapement which costs everyone in Alaska. Over-escapement represents a failure to practice good stewardship by striving for the greatest abundance of the resource as well as its sustainability as a source of employment and food locally and nationally by managing the fishery to produce the maximum sustained yield.

Rev. Tim H. Tolar  
Evangelical Lutheran Diocese of North America  
Pastor, Saint Luke Lutheran (UAC) - Kenai, Nikiski, & Homer, AK  
Chaplain/Firefighter/EMT, Nikiski Fire Department - Nikiski, AK  
Captain, F/V ICHTHUS - Kenai, AK

<http://saintlukekenai.com>

907-335-0036

RC 45

Testimonial for proposal 285  
Bob Pence, Wasilla/Alexander lake Alaska  
715-4420

My name is Bob Pence from Wasilla and I also live part time at my property on Alexander Lake. I am retired from the Alaska Dept. Fish and Game Sport Fish Div. I have been working and involved in Alaska fisheries and science for the last 30 years.

I am concerned about proposal 285 which addresses regulation changes for the Alexander Lake drainage.

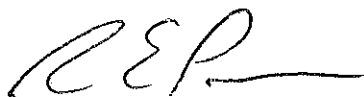
It says in section (E) *No season, no bag limit. Pike need not be salvaged, but must be disposed of in flowing water or on land at least 1 mile from a dwelling.* There is no readily accessible place to dispose of pike outside a mile boundary from dwellings on all the lake shore and it is too shallow to venture downstream from the lake to dispose of pike carcasses. I own about a 1000 feet of shoreline over the best fishing hole on the lake and I am worried that this regulation change will see people disposing of fish on private property, creating a safety concern with the attraction of bears. This is unit 16 B and we already have a bear problem. It is also wanton waste, which I have a moral concern with.

Section F *shows you will be able to use spears, gill nets, pond nets and bow and arrow to catch pike on Alexander Lake.* I believe that the public fishing with gill and pond nets will create a safety concern for float plane traffic on this lake. There are flights that drop off pike fishermen, hunters and property owners almost every day. Nets strung in channels and in the lake can be a hidden danger for a landing floatplane.

Alexander Lake is an active sport fishery that sees fishermen almost every day throughout the year. I think it is the best pike fishing lake in south central Alaska and has produced 40+ inch trophy class northern pike for years. Unfortunately pike are predators that feed on salmon smolt. But I have questions. Why have the king salmon suddenly declined in the last 5 years when pike have been in Alexander since the 1950's? From my observance, I believe there are changes in the ecosystem of the Alexander drainage that is tilting in favor of pike and against the kings. The temperatures in our drainage's are warming up gradually. USGS research data shows that temperatures have warmed in this area over the last 10 years by 3 degrees. The story is playing out right in front of our eyes with the increased aquatic growth in the lake and creek. Some of the old timers I talk with also mention changes. Pike love the warmer water and kings do not. We hear about it in our oceans with the changes in ice patterns, but it is happening inland too. I am no environmental activist trying to paint a gloom and doom picture here. I am just telling you the facts. I believe in time the kings will come back on their own when mother nature swings back in favor of them. There are other issues with Alexander kings. This is unit 16B and we have an overpopulated black bear population. Over 100 bears were killed by Fish and Game programs around Alexander Lake in the last 2 years. You better believe that they were eating quite a few spawning kings in the system. There is mortality of Alexander kings by both high seas and Cook Inlet fisheries. There are so many issues and uncertainties with this king salmon fishery that it makes your head spin.

I also want to see the king salmon stocks rebuild, but the actions included in proposal 285 seem misdirected and grasping at straws. I am experienced in Alaska king salmon enhancement projects. Alexander Creek is perfect for a state fish hatchery stocking program. Hatchery staff can adipose clip and CWT tag every king smolt that they release in the system. From this tagging project, biologists can track their life out in the ocean by retrieving these marked fish caught in the high seas and inlet commercial fisheries. There is a new ADF&G sport fish hatchery coming on line this summer and hatchery rearing space is available. Fish and Game has just received almost 1 million dollars for research and pike killing in the Alexander creek drainage. Let's use some of this money for king salmon stocking. It is the perfect time.

Thank you, Bob Pence



Scott Eggemeyer  
35655 Teresa Way

Soldotna Alaska 99669

RC 46

UCI Board Of Fish

Proposal 256

Please replace "oar Length" with "10 feet" as this is a measurable distance for enforcement issues. The intent of this proposal is that the measured distance is from the closest side of the boat to the northern shore of this area of the river otherwise known as "People Hole".

Thank You

Scott Eggemeyer

2/20/2011  
Members of Alaska Bowditch Fish

This is a cover sheet supporting  
Proposals # 105, 106, 107  
108, 109, 167, 322. RC47

These proposals ask for  
additional fishing time  
prior to July 8, in the

statistical area - 244-32 -

North Kotlitowsky Beach

Thank you

Brian Gabriel Sr.  
BRIAN GABRIEL SR  
2305 WATERGATE WAY  
KENAI, AK.

99668

# Kalifornsky Beach Harvest

Area 244-31 South KBeach

Area 244-32 North KBeach

- The data below is representation of Forgone and Potential Harvest In Area 244-32

<b>Year</b>	<b>24431 Season</b>	<b>24432 Season</b>	<b>24431 prior to July 8</b>	<b>24431 pre July 8 as a percent of 24432 Season</b>
1999	279,753	64,799	13,938	22%
2000	106,652	75,064	13,468	18%
2001	236,621	73,116	51,403	70%
2002	218,273	140,884	64,794	46%
2003	255,104	165,113	63,331	38%
2004	356,124	303,849	83,651	28%
2005	413,661	311,545	142,981	46%
2006	258,344	71,733	62,754	87%
2007	183,364	105,180	17,583	17%
2008	345,293	108,419	92,200	85%
2009	196,885	61,781	76,531	124%
2010	157,800	110,536	40,633	37%
<b>Avg</b>	<b>250,656</b>	<b>132,668</b>	<b>60,272</b>	<b>55%</b>



# Kalifornsky Beach King Harvest

-Prior to July 8

Average harvest Per Fishing Period

54 Kings

8,144 Sockeye

## **Summary of Stat Area 244-31, harvest prior to July 8**

Year	Chinook	Sockeye	Days Open
1999	140	13,938	3
2000	148	13,468	2
2001	344	51,403	6
2002	332	64,794	7
2003	985	63,331	8
2004	553	83,651	8
2005	800	142,981	14
2006	382	62,754	8
2007	361	17,583	7
2008	262	92,200	9
2009	243	76,531	9
2010	260	40,633	8
Avg	401	60,272	7.4

-NorthK Beach harvest has been at or below 75,000 Sockeye 5 of the past  
12years

## 1980 -1998 244-30 harvest prior to July 1-7

### Summary of Stat Area 244-30 (July 1-7)

---

Year	Chinook	Sockeye
1980	234	4,942
1981	369	8,547
1982	306	951
1983	1,097	11,410
1984	342	6,806
1985	317	15,599
1986	484	7,466
1987	398	14,168
1988	211	17,739
1989	332	19,563
1990	174	9,299
1991	248	19,357
1992	307	11,531
1993	484	10,596
1994	460	9,408
1995	726	9,252
1996	428	29,245
1997	368	28,583
1998	228	16,431
Avg	395	13,205

# ESSN SUBSECTION HARVEST

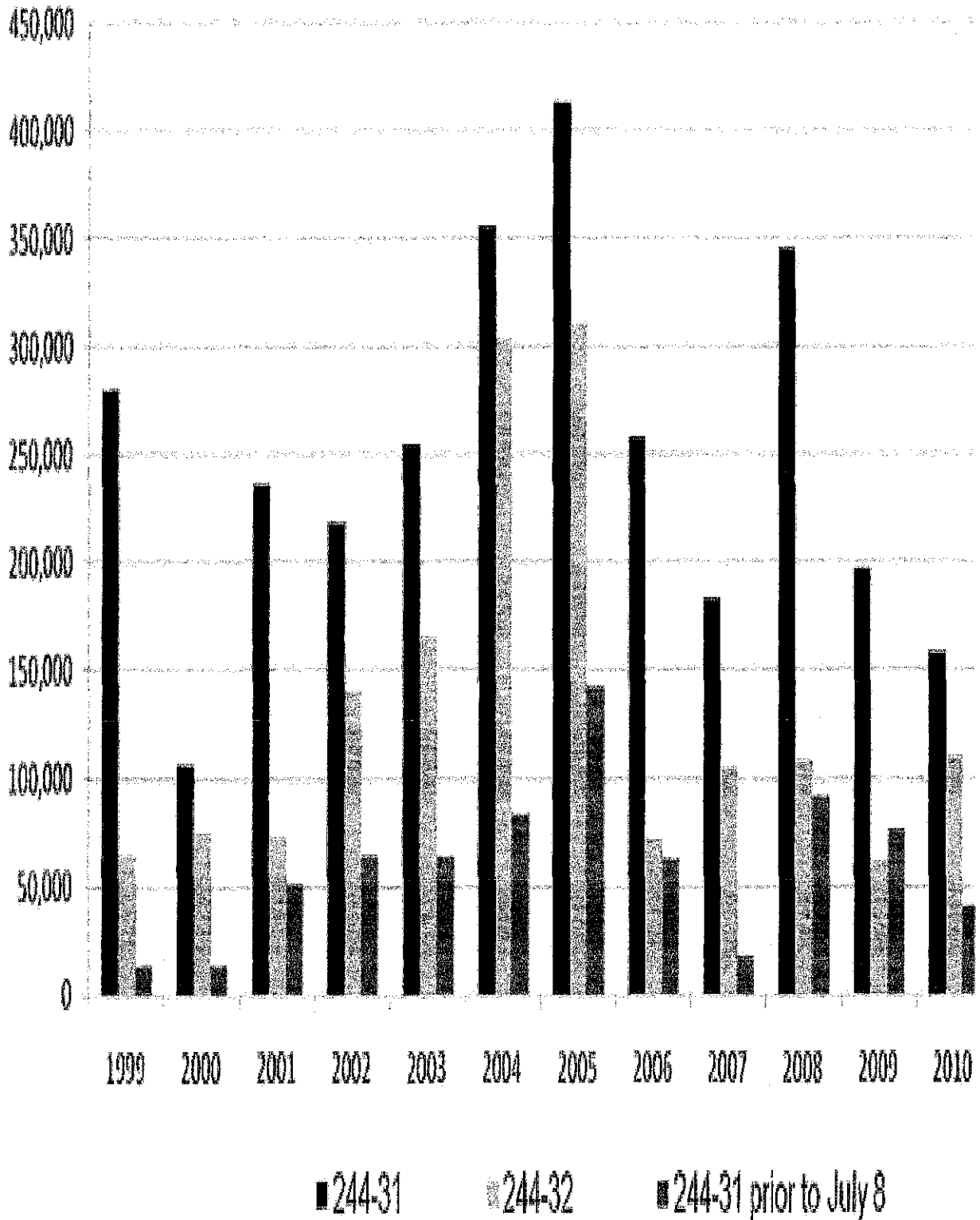
## CHINOOK SALMON

Year	24421	24422	24431	24432	24441	24442
1999	1,879	1,974	2,653	1,113	1,721	123
2000	781	994	1,221	295	367	26
2001	1,261	2,121	1,546	403	653	25
2002	2,387	2,561	1,857	970	1,665	38
2003	2,852	3,601	3,813	1,511	2,941	92
2004	5,066	5,706	4,157	2,925	3,599	163
2005	2,694	4,850	4,404	3,284	5,522	718
2006	1,346	2,650	1,783	804	2,008	100
2007	2,256	2,812	2,624	1,344	2,946	142
2008	1,799	1,966	1,509	553	534	48
2009	865	1591	1379	548	1117	88
2010	976	1481	1612	784	1880	39
	2,014	2,692	2,380	1,211	2,079	134
	19%	26%	23%	12%	20%	1%

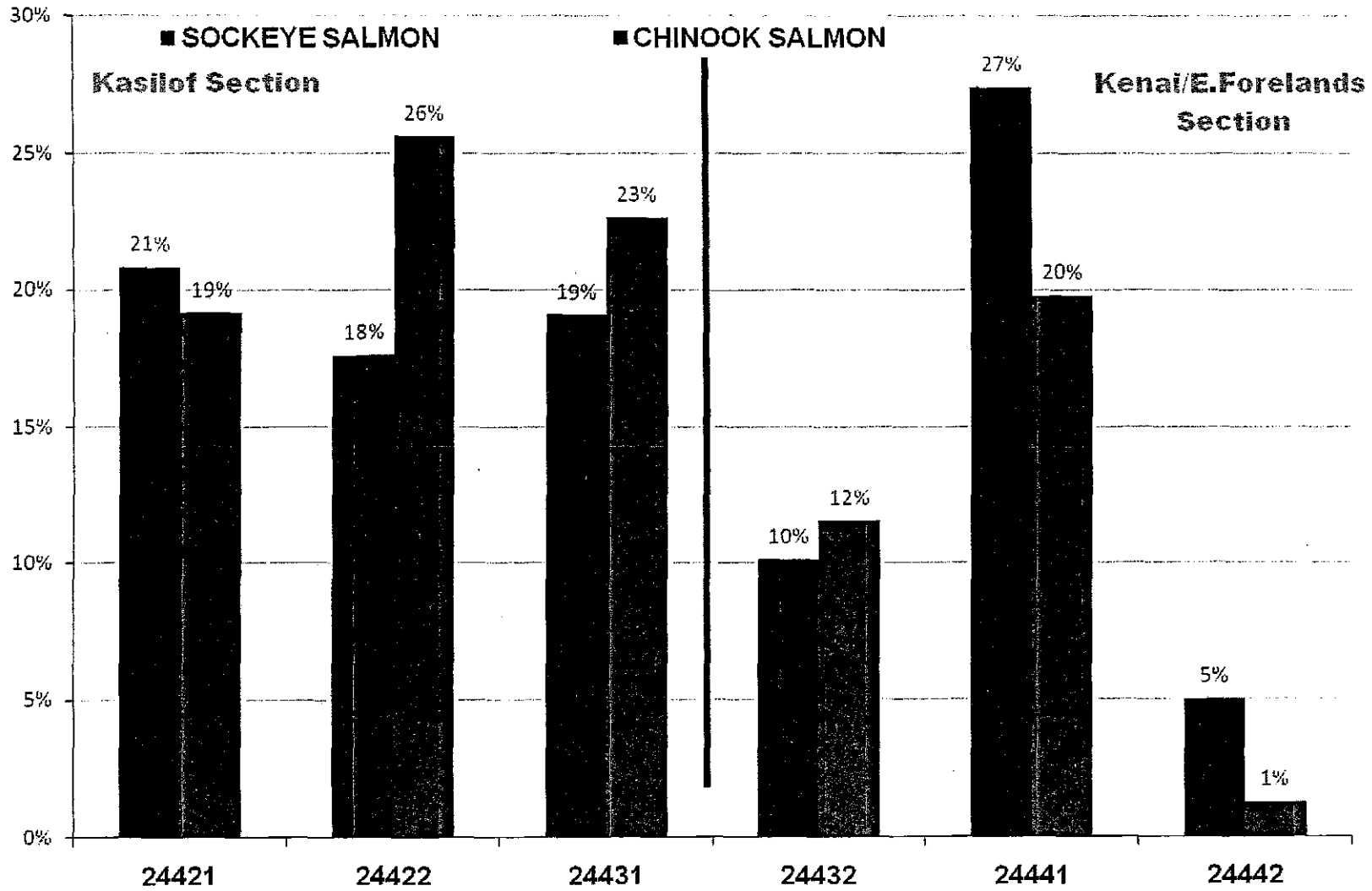
## SOCKEYE SALMON

Year	24421	24422	24431	24432	24441	24442
1999	279,822	251,526	279,753	64,799	163,868	53,178
2000	85,037	69,587	106,652	75,064	152,359	41,048
2001	250,214	197,098	236,621	73,116	100,181	12,789
2002	280,339	236,265	218,273	140,884	382,277	45,120
2003	433,375	338,953	255,104	165,113	481,981	72,315
2004	358,722	279,897	356,124	303,849	821,406	110,908
2005	329,823	395,651	413,661	311,545	810,702	194,552
2006	179,064	217,882	258,344	71,733	199,541	36,556
2007	315,835	219,673	183,364	105,180	439,200	74,524
2008	337,114	199,372	345,293	108,419	210,784	41,755
2009	253,606	190,799	196,885	61,781	167,341	35,441
2010	175,885	183,905	157,800	110,536	391,821	65,842
	273,236	231,717	250,656	132,668	360,122	65,336
	21%	18%	19%	10%	27%	5%

## Sockeye Salmon Harvest in Stat Areas 244-31 & 244-32, 1999-2010



# Upper Subdistrict Set Gillnet Harvest, 1999-2010



RC 48

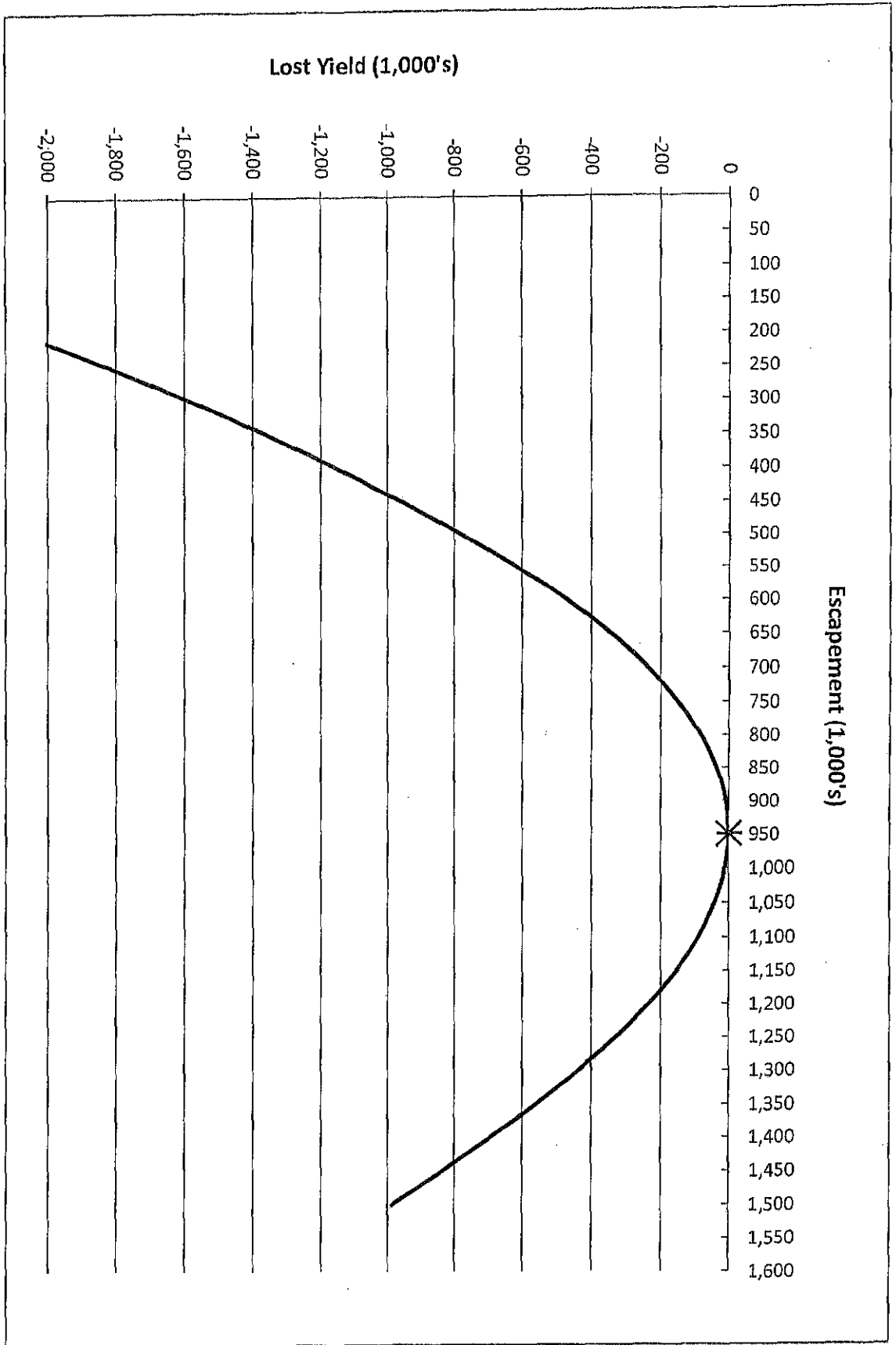
Kenai River Late Run Sockeye (LRS)  
Salmon Escapement Goals and Lost Yields

Roland Maw

- cont. of RC 36



Figure 1 Lost Yield 1969 - 2005



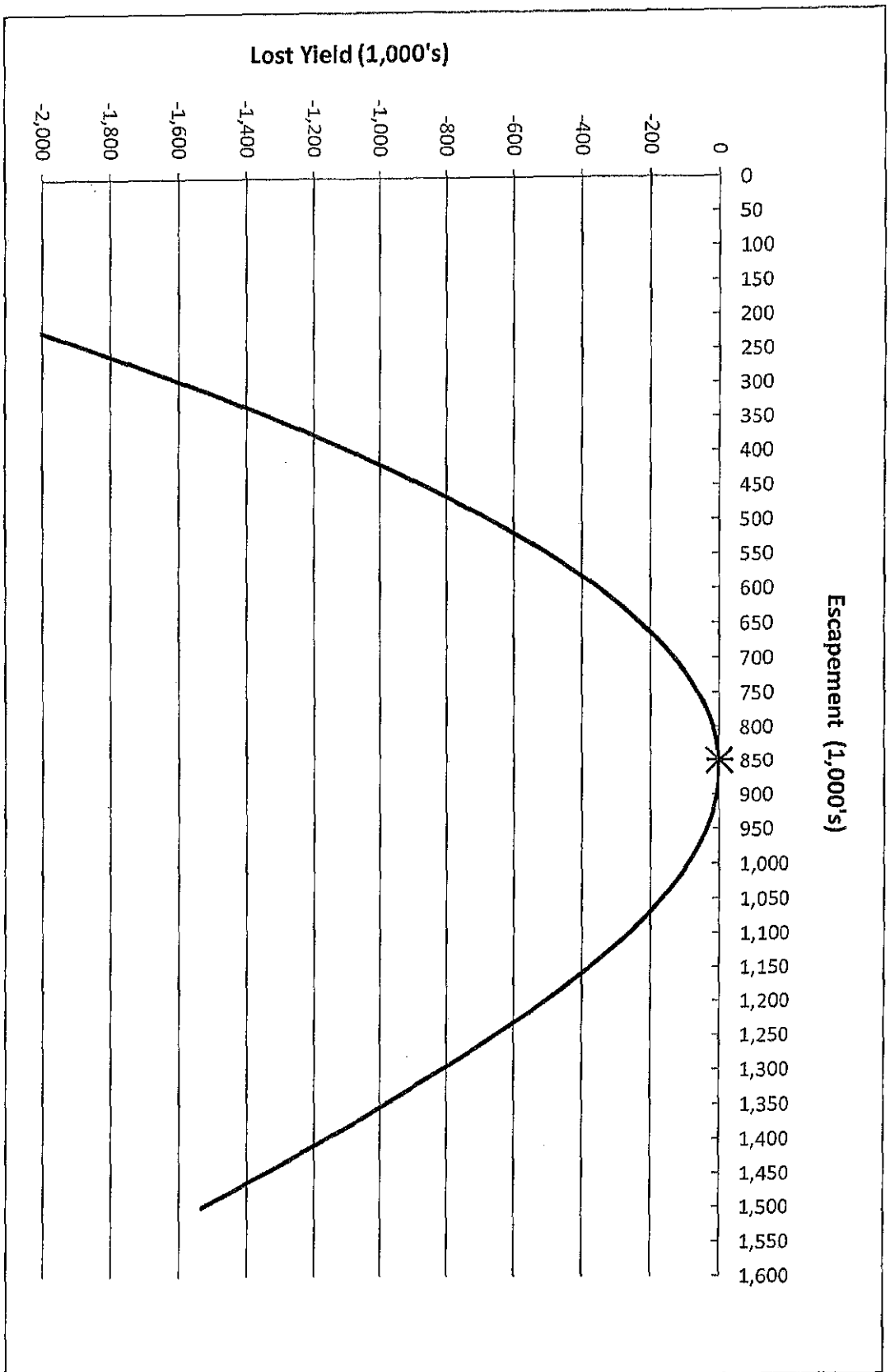


Figure 2

Lost Yield 1979-2005



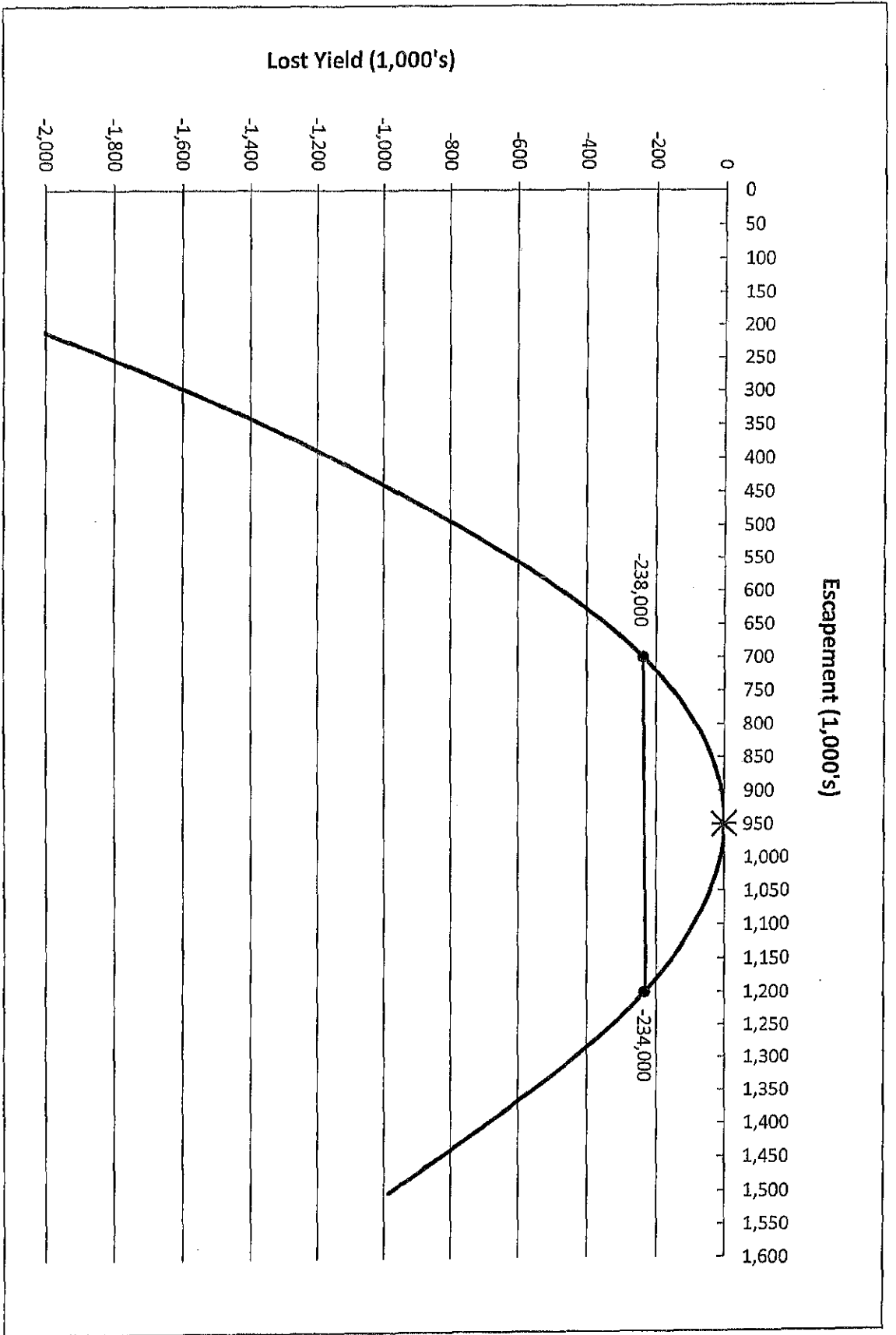


Figure 3 Lost Yield 1969 - 2005





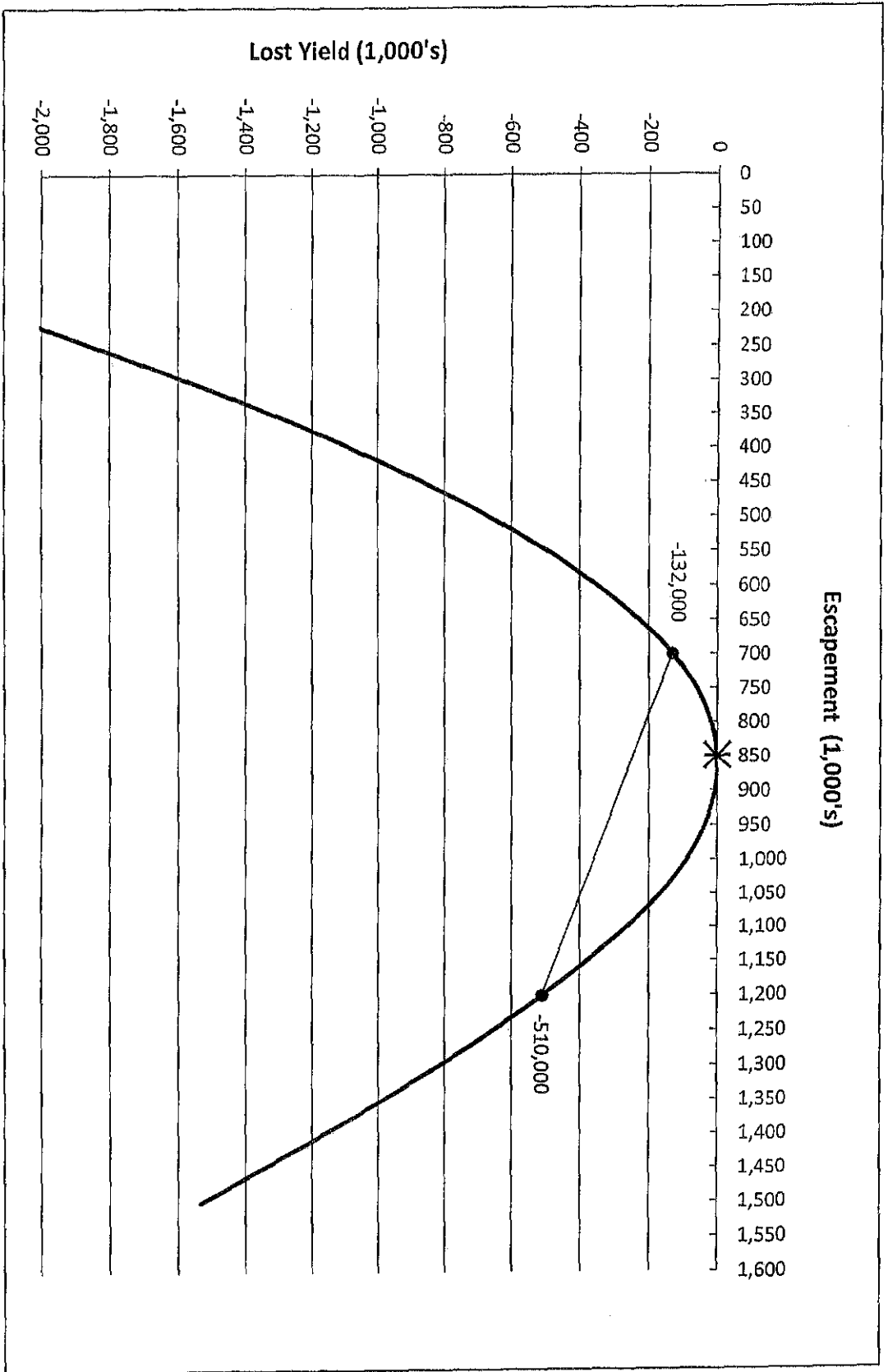
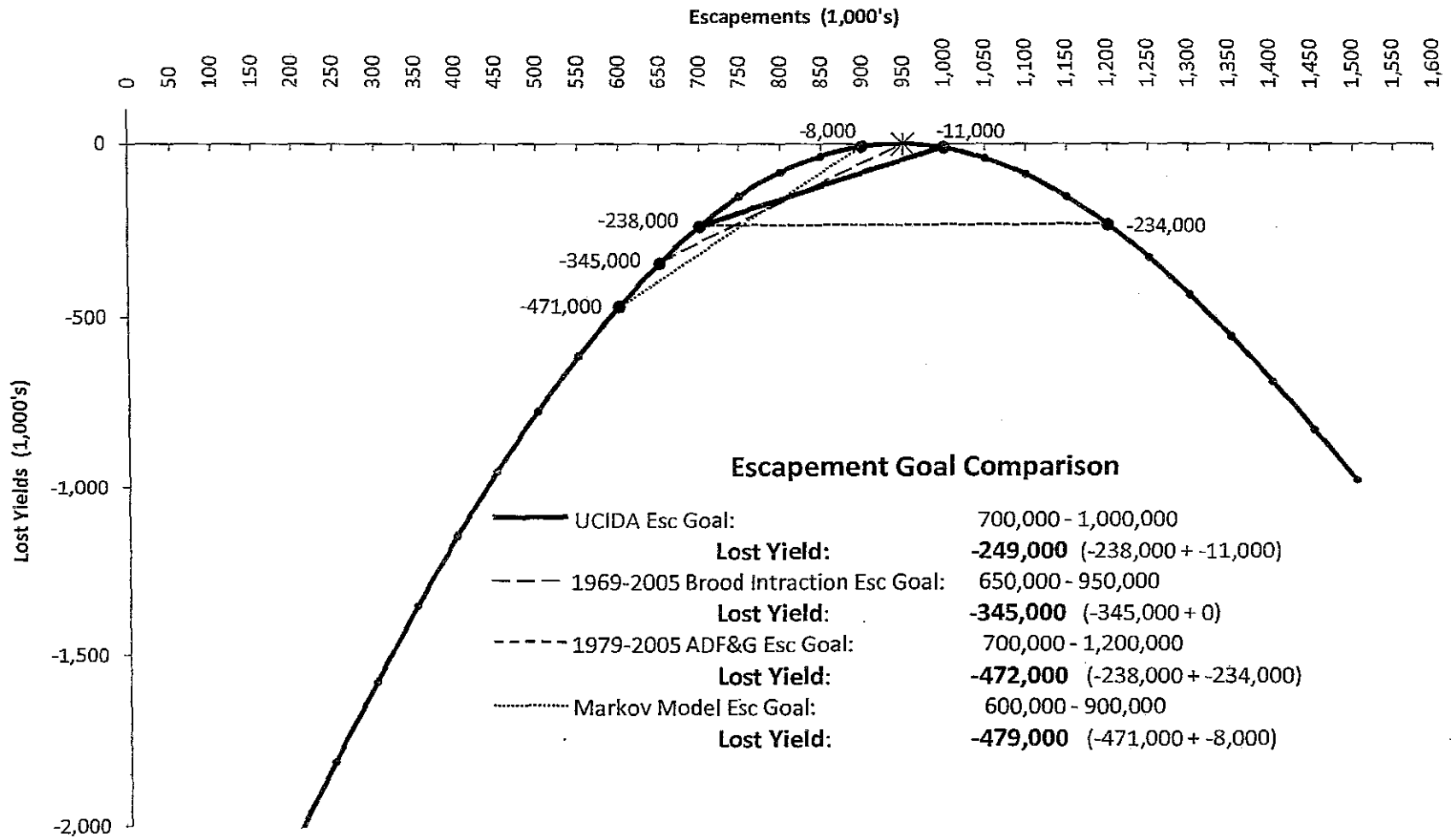


Figure 4

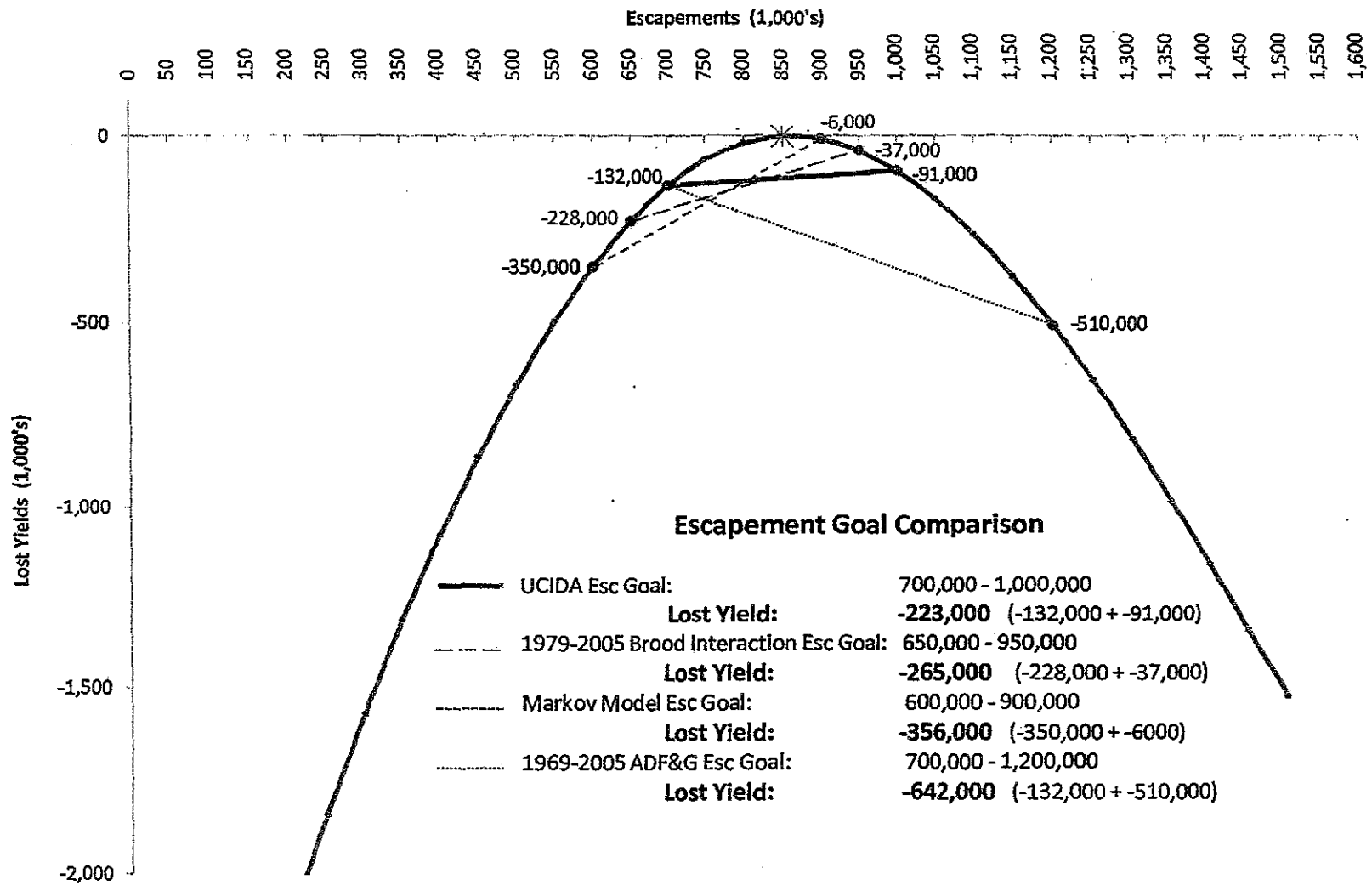
Lost Yield 1979-2005



**Figure 5. Lost Yield 1969-2005 - 950,000 MSY**



**Figure 6. Lost Yield 1979-2005 - 850,000 MSY**

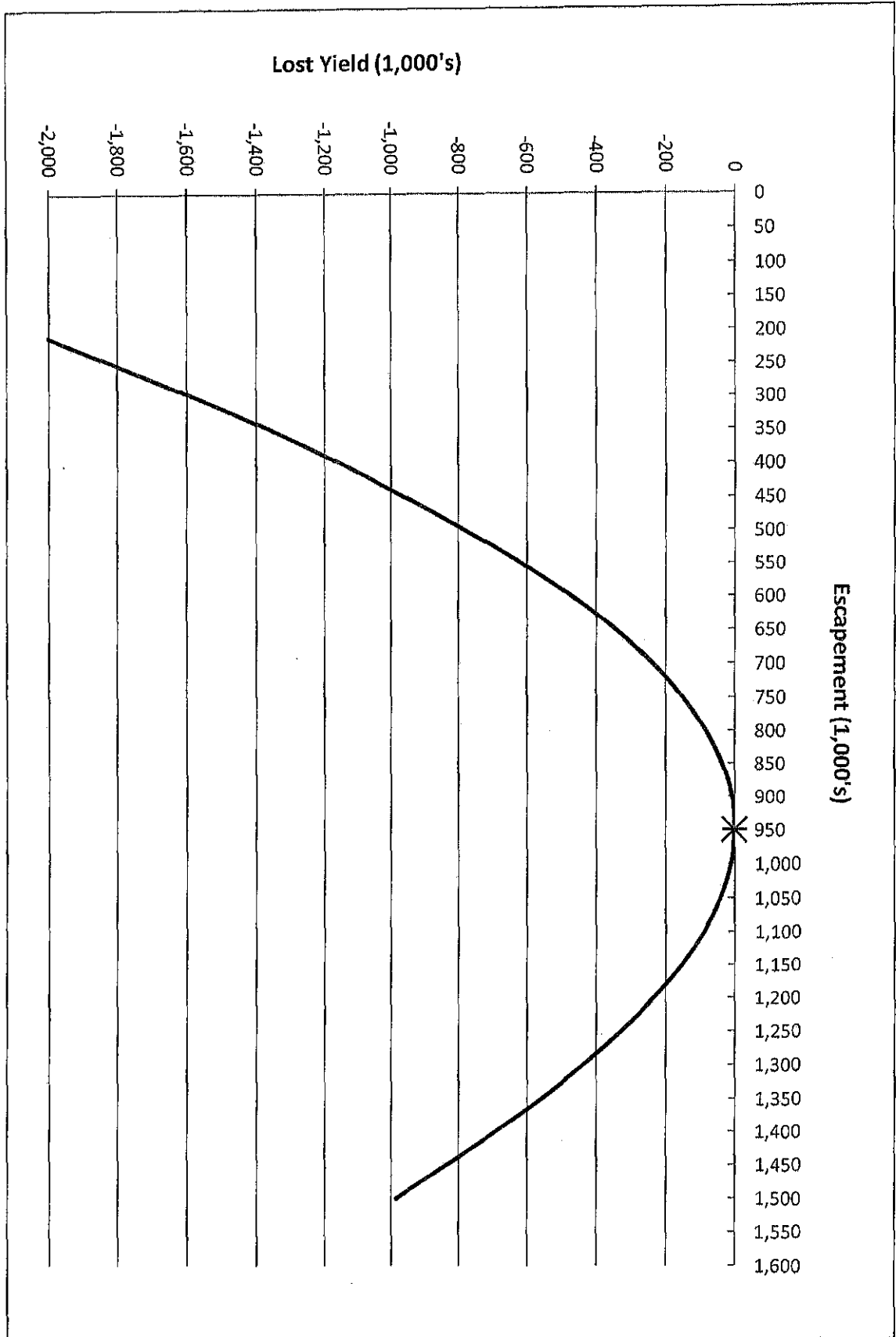


RC48

Kernai River Late Run Sockeye (LRS)  
Salmon Escapement goals + lost yields  
cont. RC36



Figure 1 Lost Yield 1969 - 2005



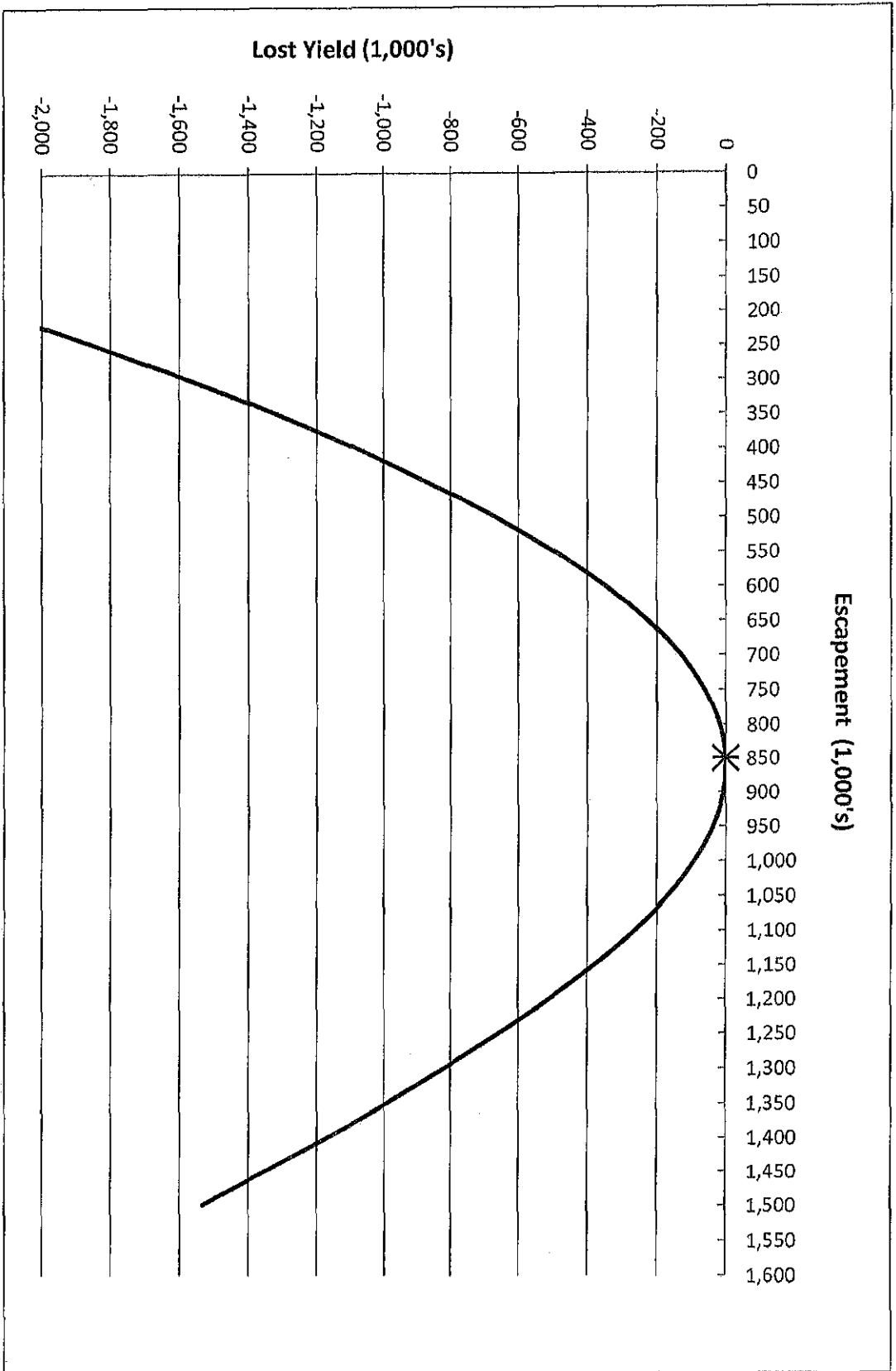


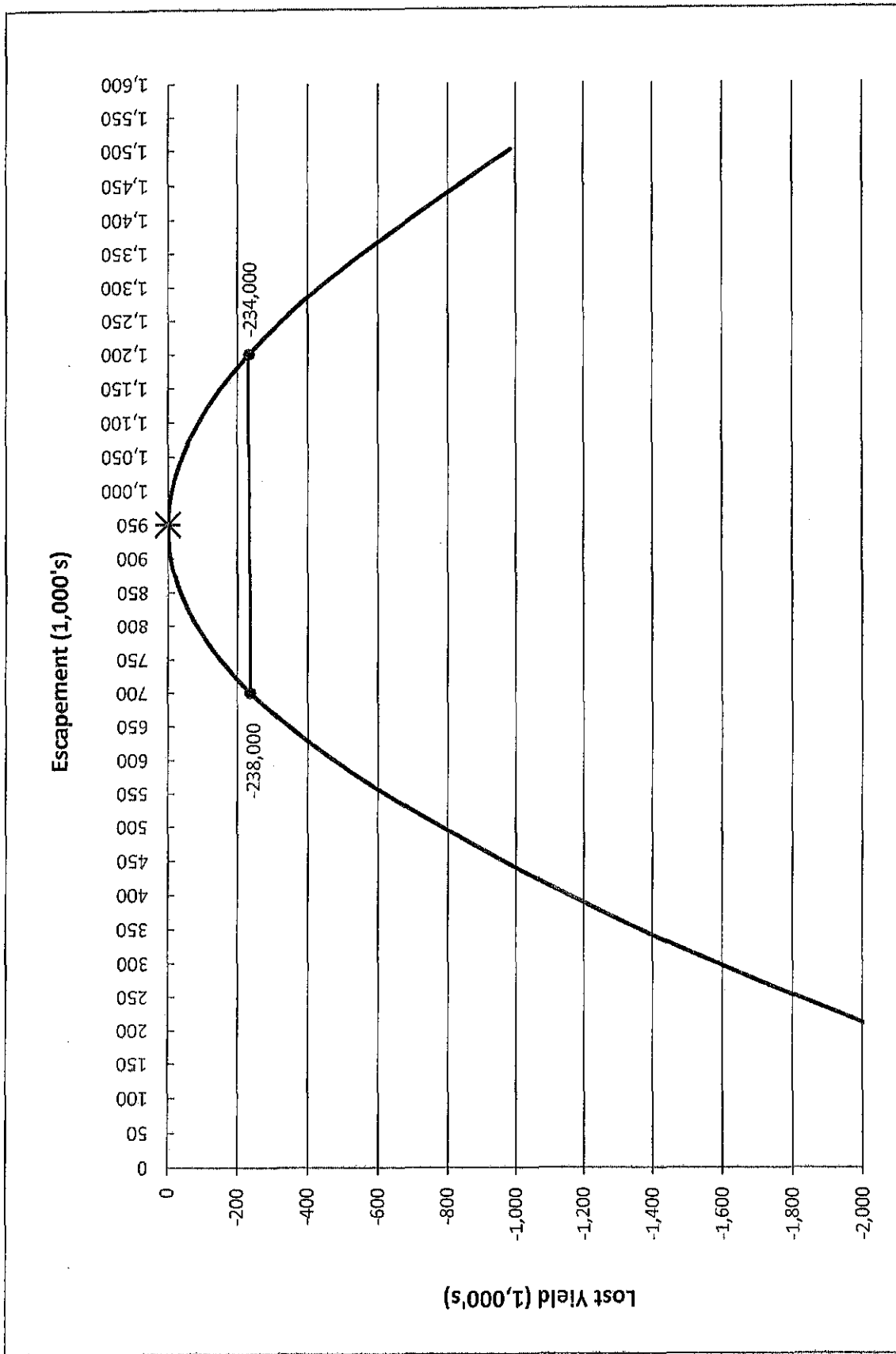
Figure 2

Lost Yield 1979-2005





Figure 3 Lost Yield 1969 - 2005



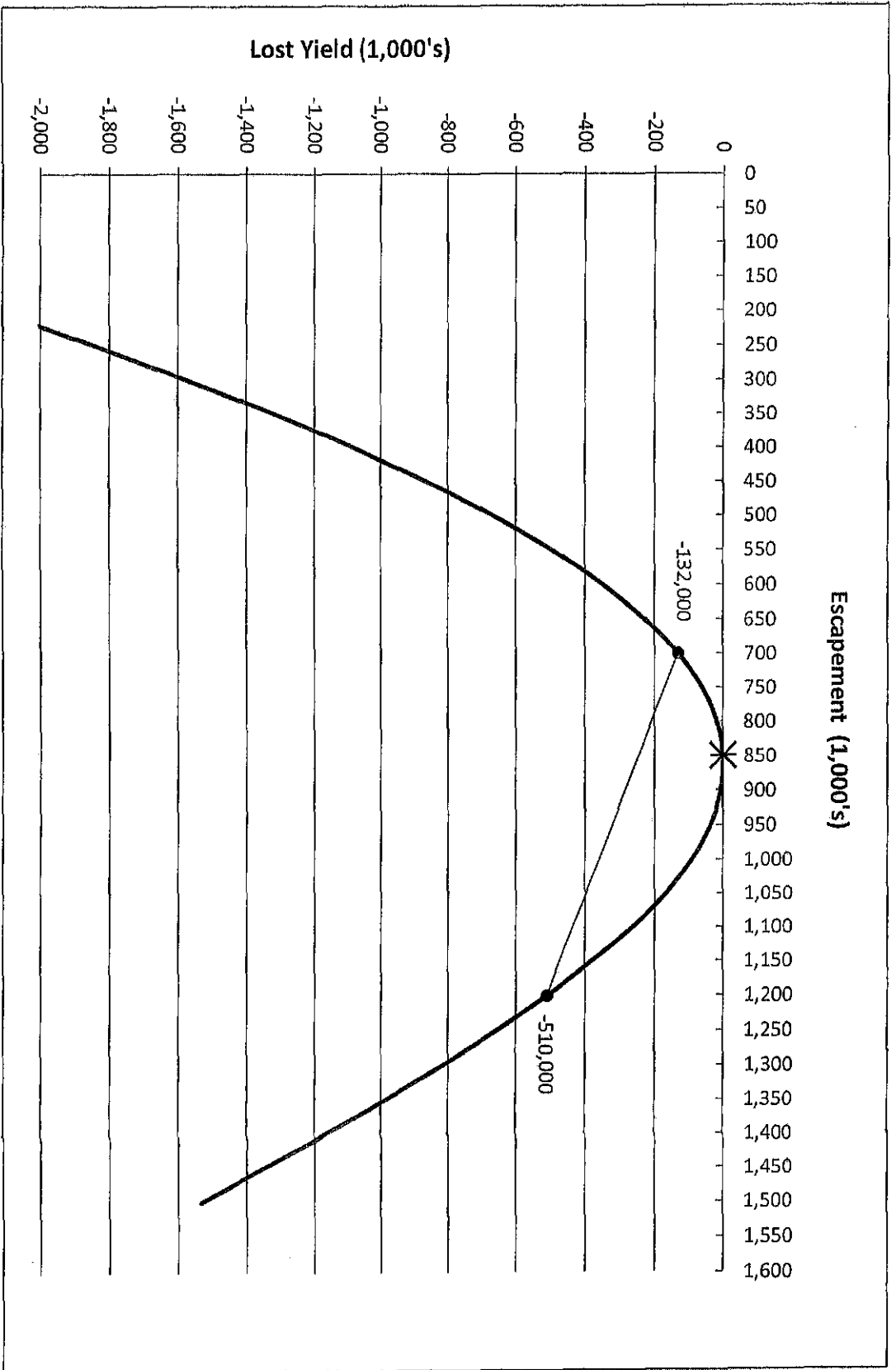
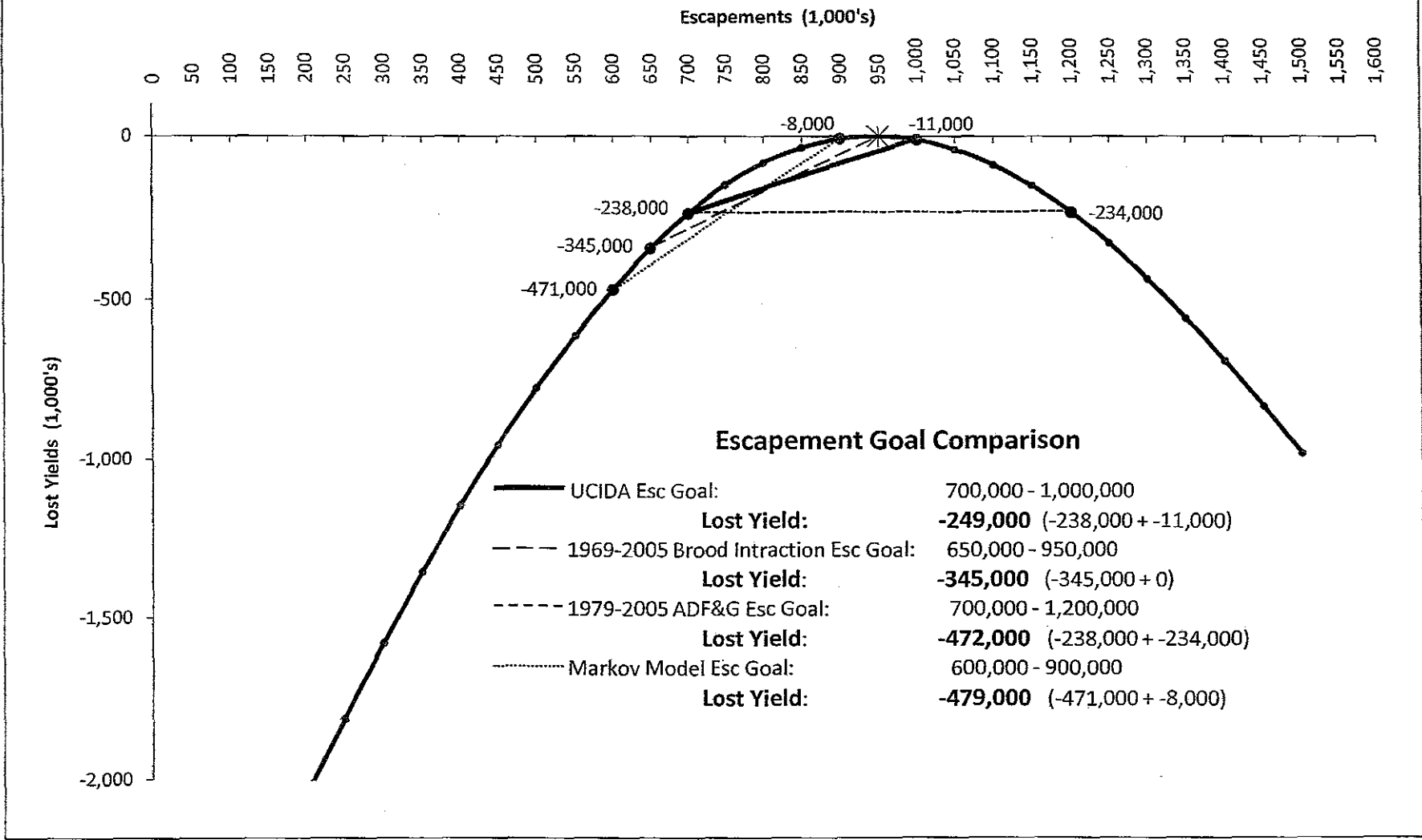


Figure 4

Lost Yield 1979-2005

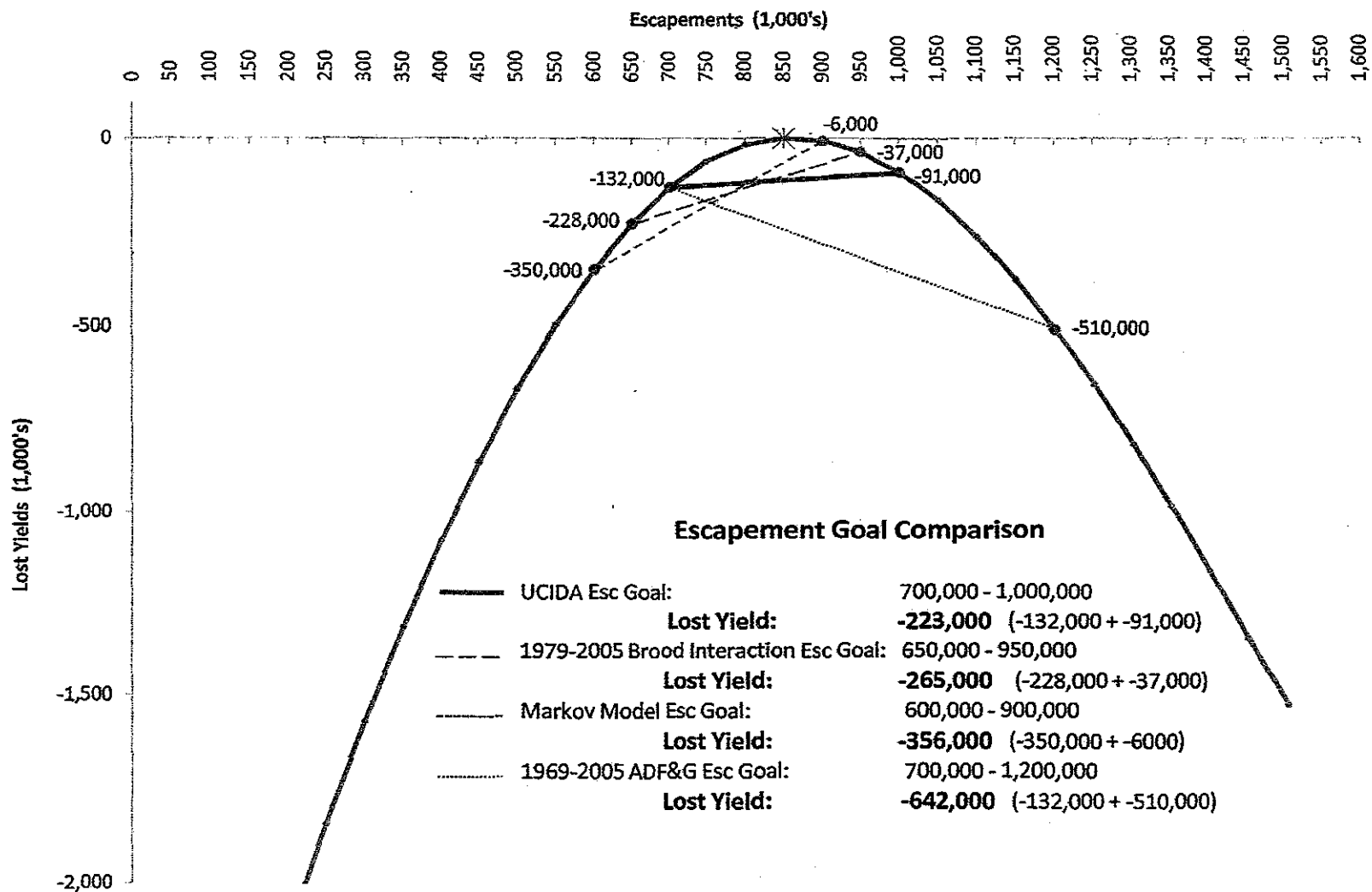


**Figure 5. Lost Yield 1969-2005 - 950,000 MSY**





**Figure 6. Lost Yield 1979-2005 - 850,000 MSY**



2/21/2011

RC 49

Mr. Chairman, Members of the Board of Fish and Staff,

My name is Gary Hollier. I live in Soldotna, Ak. I have been attending the BOF process since the middle 80s. I am the vice-president of the set-net group, Kenai Peninsula Fisherman's Association. I started set-netting Kalifonsky Beach in 1971. Currently all my fishing operation is located in statistical area 244-32, which is North Kalifonsky Beach. This area is located between the Kasilof section, 244-31, and the Kenai River. There are four main concerns that I would like to address.

First I would urge the passing of proposal 324, which deals with permit stacking in the set-net fishery. This proposal would definitely help multi-permit family operations, that have elderly parents, shift workers, or members in the military, etc.... I do not believe that it would add more gear to the fishery, it would enable family operations to adhere to regulations.

Second would be the personal use fishery in the Kenai River. From its inception in 1996, where the projected harvest was to be around 80,000 sockeye, this fishery has grown to a reported 400,000 harvest in 2010. In this growing fishery, with its lack of facilities, continuing habitat damage, minimal enforcement, and high degree of abuse, [REDACTED]

[REDACTED] Plan. What does the BOF plan on doing to the PU fishery on runs under 2 million to the Kenai River? There are many proposals submitted that address some of the problems. It was very frustrating in 2008 when the commercial set-net season closed on July 23, because the minimum escapement goals could not be projected to the Kenai River. The P.U. fishery never was restricted. In the Upper Cook Inlet Salmon Management Plan (5AAC 21.363 (6) it states .....where there are known conservation problems, the burden of conservation shall, to the extent practicable, be shared among all user groups in close proportion to their respective harvest on the stock of concern. At a minimum I would hope that proposal 328 would be adopted. This proposal would close all fisheries in 24 hours when ever the minimum OEG is projected to not be achieved in the Kenai River.

Third, as stated I am a concerned North Kalifonsky Beach Fisherman. I would like to refer my comments to RC ~~42~~<sup>49</sup> This area is sandwiched between the Blanchard Line and the Personal Use fishery in the Kenai River. This area along with Salamatoff Beach were the traditional dominant set-net sockeye harvesters in Cook Inlet. Due to ever increasing escapement goals to the Kenai River, a later opening date, windows, restrictions in hours, and with the growing P.U. fishery, North K-Beach has shouldered

the burden of the above mentioned allocation increases and thus harvest share has dropped dramatically. If it was the intent of the State of Alaska and past BOF's to drive this section of the beach to economic chaos, they certainly have accomplished that. I would hope that this BOF would look at considering one of the proposals, like 105 or 167. They address this section, by allowing some additional fishing time in concert with the Kasilof section until July 8, when the entire Kenai Section opens.

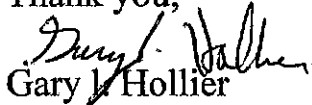
Fourth and most important are the three tiered abundant-based escapement goals to the Kenai River. The system simply is not working. Since its inception in 1999, I believe that 10 out of 12 years the pre-season estimate of late-run sockeye to the Kenai River did not occur. Thus resulting in changes to in-season management so that goals could be achieved with whatever the new tier required.

I would like to refer to RC-32, the Kenai Late Run Sockeye Didson Return Table. The state-wide average spawner/return ratio is around 4 to 1, To me the most important issue using 3 tiered management, since 1999, is the resulting very poor spawner /return ratio. In 3 out of 7 years less than 2 to 1 ratio has occurred which is 43% of the time. It probably will occur in 2011, thus 50% of the time, a less than 2 to 1 spawner /return ratio will occur.

I don't believe that ratio's like this, reflect the intent of the (1) national standard of the Magnuson-Stevens Act which states-conservation and management measures shall prevent over fishing while achieving, on a continuous basis, the OPTIMUM yield from each fishery for the U.S. fishing industry. I would urge the BOF to go to a single Didson in-river goal, that would yield optimum or maximum sustained yield. Proposal 151 addresses this issue.

In closing I participated in the Bethe study, in 1996, and was one of two Icicle fisherman that prosecuted the cost-recovery fishery in Cook Inlet in 2010. I would be happy to answer any questions and will be available to participate in the committee process.

Thank you,

  
Gary J. Hollier  
43680 Ross Dr.  
Soldotna, Ak.

RC50



# Alaska Department of Fish and Game

February 20, 2011

Please note correction to RC 20: there was a transcription error from Table 1 in Tyonek Option 4B.

Tyonek Option 4B:

- King salmon 750-~~1,350~~
- Sockeye salmon 50-300
- Chum salmon 50-100
- Pink salmon 50-100
- Coho salmon 50-350

2650  
,

Stock	Range of harvest		ANS range option (rounded)	
	Low	High	Low	High
King salmon	770	2,665	750	1,350
Sockeye salmon	45	310	50	300
Chum salmon	0	46	50	100
Pink salmon	0	50	50	100
Coho salmon	44	352	50	350

*Rounded to*

2650

**Board of Fisheries February 20 – March 5 Upper Cook Inlet meeting at the Egan Convention Center in Anchorage, Alaska**

RC Index to date

RC 51

Log #	Submitted by	Topic	# of pages
1	ADF&G Boards	BOF Workbook	
2	ADF&G	Staff comments – Subsistence / Comm Fish	
3	ADF&G	Staff comments – Personal Use/Sport Fish	
4	ADF&G	Staff reports – UCI oral and written	
5	ADF&G	Reserved for ADF&G – nothing submitted	
6	Cooper Landing AC	Meeting minutes of January 7	2
7	Justin Gruenberg	Proposal comments	1
8	Jason Smith	Proposal comments	1
9	Kenai Soldotna AC	Minutes of January 19	2
10	Craig Crestler	Proposal 230 comments	1
11	City of Kenai	Resolution 2011-14	3
12	Les & Charlotte Allen	Proposal comments	1
13	Peter Nelde	Proposal comments	1
14	State of AK – DNR	Prop 117-118 & 324 comments	2
15	KRSA	List of proposal comments not included in index	1
16	Terry Jorgensen – Chuitna Citizen's Coalition	Prop 144-145, 158, 119, 129	4
17	Mat Su Mayor Blue Ribbon	Comments on Dept Report 08-01 (Dec '08)	2
18	ADF&G – SF	Mulligan review Kenai assessment	6
19	ADF&G – SF	Adkison review Kenai assessment	9
20	ADF&G – Subsistence	ANS options report re: Tyonek/Yentna	16
21	Tyonek AC	2-7-11 minutes	2
22	Tyonek AC	1-18-11 minutes	2
23	ADF&G	Pamphlet re: Economic impacts	10
24	ADF&G	2007 report re: Economic impacts	289
25	Wayne Smartwood	A.D.N. article re: Ship Creek fishing	1
26	Cindy Calzada	Personal comments re: Kasilof PU setnet	1
27	Rod Campbell	Cook Inlet map	1
28	Bob Merchant	Personal comments Prop 123-124, 126-127	2
29	Bob Merchant	Personal comments Prop 125, 128	2
30	Ken Federico	'08/09 PU permit information	4
31	Ken Federico	Kenai watershed forum letter	4
32	Gary Hollier	Kenai River sockeye Didson return table	1
33	Dwight Kramer	"The Collapsing Kenai-Salmon & Steelhead Journal Fall 2010 Edition"	6
34	Roland Maw	Kenai River late run sockeye escapement goals	7
35	Roland Maw	Kenai sockeye brood table DIDSON	1
36	Roland Maw	Kenai River late run sockeye escapement goals and lost yields	16
37	Roalnd Maw	Pit tag estimates – all commercial fisheries	1
38	Roland Maw	ADF&G Emergency Order lines map	1

**Board of Fisheries February 20 – March 5 Upper Cook Inlet meeting at the Egan Convention Center in Anchorage, Alaska**

**RC Index to date**

**RC 51**

<b>Log #</b>	<b>Submitted by</b>	<b>Topic</b>	<b># of pages</b>
39	Roland Maw	Drift Harvest exploitation rates on the JCL-Su-Yen – KT stocks	1
40	Roland Maw	Pike management	1
41	Roland Maw	Talking points	1
42	Roland Maw	Data PU – Rep. Stoltze	3
43	Roland Maw	Nikolaevsk community / culture	4
44	Rev Tim Tolar	Personal comments re: Kenai Peninsula commercial fishing	1
45	Bob Pence	Prop 285 testimony	1
46	Scott Eggemeyer	Prop 256 amendment	1
47	Gary Hollier	Brian Gabriel North K-Beach	7
48	Roland Maw	Kenai R. escapement goal	6
49	Gary Hollier	Personal testimony	2
50	ADF&G	Correction to RC 20	1

2011 BOF UCI Testimony by Ben Allen

**Mr. Chairmen and members of the BOF my name is Ben Allen and I am here today as the owner / proprietor of Millers Riverboat Service, member of the Matanuska Fish and Game Advisory Committee and passionate sports fishermen.**

**\*As a representative of the Matanuska Fish and Game Committee, I plan to attend Committee G.**

**I would like to direct your attention at this time to Northern District King Salmon.**

**Livelihood Challenges / Business Concept:**

**For the last two seasons I have been providing professional guided sport fishing services, on a variety of streams and rivers within the Susitna Drainage. In the 2009 King Salmon season (my first season as business owner) I lost \$10,000 as a result of multiple river closures in our region. In 2010, the Deshka River was on the brink of another King Salmon closure. If a Deshka River closure had occurred the second week of June as Fish and Game officials were speculating, I would have taken an additional \$20,000 loss. Currently as a direct result of operating a fishing guide service, I spend at least \$20000 annually which is circulated through the local economy. The multiplier economic effects of my total customers cumulative spending locally, is conservatively up to 4 times that of my annual spending.**

**Prior to the 2009 season I developed a business plan for my guide service, where I had established, I would be expanding Millers Riverboat Service, beginning in 2011 by hiring additional guides and purchasing additional boats. At this time, due to the poor returns in 2008, 2009 and 2010 and the below average forecast for 2011, I cannot justify business expansion. Investing into a business that depends on the declining Susitna drainage King Salmon resource is impractical. In fact if the Susitna Drainage King returns, continue to decline for the next 2 years, the financial feasibility of continuing business most likely will be extinguished. It is my goal to be in a position to provide professional guided sport fishing services within the Susitna Drainage for at least the next 30 years.**

Management Concerns:

REFER TO PC 27 pg. 16-17

**Recent expansion of the Northern District commercial fishery for kings is of particular concern on the declining trend in numbers and widespread sport fishery restrictions.**

\*The NCI kings have declined significantly over the last decade. The trend in return numbers from 2004 through 2008 is steadily downward. Productivity of most stocks has continued to spiral downward even when escapement goals were attained.

\*In 2005 the BOF lengthened fishing periods from 6 to 12 hours and the targeted commercial fishery harvest of Northern District kings remains contrary to the long term established sport fish priority for kings salmon that was first adopted in 1977.

\*Declining King Abundance: King salmon runs have declined in recent years throughout much of Alaska, driven apparently by a period of unfavorable ocean conditions. Effects of floods in 2006 are also likely to have contributed to the past and projected low returns.

**Given the extensive restrictions sports fishermen have been dealt, I strongly support the MSBSC recommendations and Proposal 143, which calls for a revision of the Northern District King Salmon Management Plan to clarify that Northern Cook Inlet king stocks are to be managed primarily for sport and guided sport uses in order to provide a reasonable opportunity to harvest these salmon over the entire run, as measured by the frequency of in-river restrictions. Additionally revising the Northern District King Salmon Management Plan to return regulations for the Northern District commercial set net fishery to those in place prior to 2002, is largely justified due to the recent identifications of stocks of concern in western Cook Inlet, Alexander Creek and eastside Susitna streams.**

**Given the Stock of Concern status of Willow Creek and Goose Creek and recent failing escapements (In 2010, 13 of the 15 systems surveyed failed to make escapements), I strongly support Proposal 144, which seeks to establish a Susitna River small stream and river management plan.**

\*The majority of the tributaries in the Susitna River do not have any type of management plan. These include: Willow, Little Willow, Greys, Kashwitna, Caswell, Goose, Rabideux, Sunshine, Trapper, Birch, Montana, Clear, Sheep and Lake Creeks, and the Talachulitna and Chulitna Rivers.

\*Although Willow and Goose Creeks are the only eastside fisheries recommended for Stock of Concern status it is evident that other stocks are on the "brink" of becoming similarly classified. The development of a precautionary harvest strategy for all Fishery Management Unit 2 appears



prudent.

my family, and the many anglers of South Central Alaska, the Susitna drainage King Salmon resource is more precious than gold, possessing the capacity and potential to be a world class King Salmon sport fishery. When I was in second grade I caught my first King Salmon, a 35 pounder out of Lake Creek. My prayer, is that my kids someday will have that same opportunity. **I have invested nearly all I own to have the opportunity to live my dream of being Alaskan fishing guide; I would like the opportunity to continue this dream and perpetually enjoy sport fishing for King Salmon on the rivers I have learned to love.**



RC 53

MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

**Mac Minard**  
**Testimony to Alaska Board of Fisheries**  
**February, 2011**  
**Anchorage, Alaska**

Mr. Chairman and members of the Board, my name is Mac Minard. I am a retired fisheries biologist with 25 years of service with ADFG where I worked as a research and management biologist for both Commercial and Sport Fish Divisions and then as a Regional Supervisor. Upon retirement I had six years service with Kenai River Sport Fishing Association as a fisheries consultant.

Today I am testifying on behalf of the Mat/Su Borough and the Mayors Blue Ribbon Sportsman's Committee. I will be referring to RC \_\_\_\_\_ in this testimony.

The problem the Board faces at this meeting is that the management of the commercial fisheries of the Central District is focused almost entirely on Kenai and Kasilof sockeye salmon stocks. This challenge has been with us for years.

In March of 1988 Doug Eggers, Chief Fisheries Scientist, wrote a memo to Ken Flory who was the Regional Supervisor for Comm. Fish Division Central Region.

In that memo Eggers described the management challenge in the following manner:

“Most of the management problems associated with the Upper Cook Inlet fisheries stem from the fact that the major (Susitna, Kasilof, and Kenai) sockeye stocks, upper Cook Inlet coho stocks, all chum salmon stocks, and late run Kenai Chinook salmon stocks have virtually identical run timing and share the same migratory corridor to natal streams. Thus, the stocks co-mingle and are collectively harvested in the Cook Inlet commercial gillnet fishery”

Doug went on to say that the commercial fishery is “in effect managed only for Kenai and Kasilof escapement goals and that coho and Chinook are harvest incidentally” and that “the coho and Chinook stocks are treated as a necessary by-catch to the harvest of sockeye”.

Eggers went on to recommend management policy given these considerations and stated that **the sockeye fishery should be managed to meet Kenai and Kasilof escapement goals only.**

What has changed in the 23 years since Doug Eggers offered his views on Cook Inlet?

- Sadly Commercial fish management still focuses on a single species in two major systems.
- Little advancement in the fishery management system has been realized
- While commercial harvests have remained stable at 2.9 million sockeye per year we now have Susitna sockeye labeled as a stock of concern
- In addition we have serious conservation issues associated to Northern District Chinook
- Sport anglers in the Mat/Su are limited to a two fish bag limit for coho salmon and
- The economic benefits that could accrue from the inriver sport fisheries are being stifled by overemphasis on the economically less important commercial fishery

The problems we address today in Cook Inlet have more to do with a persistent culture and management paradigm within the Department than it does anything else.

The Blue Ribbon Sportsmen's committee has identified six important steps that when taken together will advance this arcane management approach.

Specifically we propose that the Board

- 1) Reassert the sport priority for chinook and coho salmon stocks destined for the Northern District.
- 2) Adopt and have management follow conservation actions directed toward Northern District chinook salmon stocks.
- 3) Increase sport fishing opportunities for coho salmon in Upper Cook Inlet
- 4) Adopt meaningful conservation measures for Susitna Sockeye
- 5) Establish effective passage of sockeye and coho salmon to Northern District waters through the use of a conservation corridor.
- 6) Maintain or extend personal use fishing opportunity for Alaskans who choose to harvest fish to eat with a net.

I appreciate the opportunity to address the Board and would like to serve on Committee A and C.



MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

Mr. Chairman and members of the BOF my name is Larry Engel and I am here today as a member of the MSBSC.

I would like to direct your attention at this time to Susitna River sockeye salmon because four of you were not present in 2008 when this stock was declared a Stock of Concern. Susitna sockeye were labeled a Stock of Concern by the BOF because of greatly diminished harvests in both the Northern District set net fishery and in the drift net fishery and because minimum SEG escapements had not been achieved in 5 of the previous 7 years.

It is noteworthy that the BOF took this important conservation action without the normal supporting recommendation from ADF&G. The staff did express concern about Susitna sockeye, at that time, but felt the status of the stock was "clouded" by just too many uncertainties to warrant a Stock of Concern designation. As you learned at your October work session they have since altered this position.

The required Action Plan developed for Susitna sockeye in 2008 was little more than a research proposal. Existing management plans affecting Susitna sockeye remained unchanged despite the Stock of Concern classification.

In 2009, ADF&G'S preferred approach to managing Susitna sockeye became evident. The Yentna River sonar SEG was eliminated after nearly 30 years because it undercounted escapement. In the eyes of many this action was clearly out of "step" with the intent of your codified Escapement Goal Policy

which calls for changing escapement goals in the BOF's normal cycle whenever possible. Adhering to the 3 year cycle, of course, facilitates public review of allocative issues associated with escapement goals

Elimination of the Yentna sonar escapement goal has the following impacts on management:

1. **Meaningful in-season management is no longer possible.**
2. **The Yentna OEG is now moot.**
3. **And a BOF mandate which states: "achieving the lower end of the Yentna escapement goal shall take priority over not exceeding the upper end of the Kenai River inriver run goal" is no longer binding.**

The Yentna sonar goal was replaced by three weir based SEG's (Larson, Chelatna and Judd Lakes). These weirs along with a fourth weir at Shell Lake provide a post- season assessment of escapement. Recent studies suggest that the weirs represent about 50% of the entire Susitna drainage sockeye escapement.

Since weirs have become ADF&G's choice for monitoring escapements there has been no meaningful Emergency Orders issued to conserve Susitna sockeye...despite plans that identify measures and authorities to do so.

How well have we done escapement wise since dropping the sonar SEG? Some might say we made 4 of 6 possible weir targets. Others might point out we have failed to achieve a minimum goal in each of the past two years.

The MSBSC suggests that escapement trends might best be evaluated by looking at the aggregate annual weir counts since the four weirs were first put into operation. A combined weir

count of **186,277** sockeye in 2006 has dropped each and every year to just **78,691** fish in 2010. Yes, in just 5 years (the life span of a sockeye) Susitna escapements have **dropped over 50%**. (Please refer to PC 27, Table 1, page 29)

You might also consider that both systems (weir counts) that have failed to meet minimum escapements the past two years are located in the Yentna River drainage where 75% of the entire Susitna drainage's production occurs.

Sonar counts over the past 5 years also clearly reflect a similar downward spiral in escapement. The 2009 DIDSON count (or Bendix equivalent) was the lowest on record. The 2010 sonar count was likewise very poor. (Please refer to PC 27, Figure 7, page 28)

**The very serious steady decline of Susitna sockeye as measured by harvest, sonar and weirs demands the development of a regulatory-based recovery plan.** A management plan that features the concept of a conservation corridor must be developed because meaningful in-season management appears unlikely without sonar assessment of escapement. I respectfully hope you will seriously consider **Proposal 126.**

I request to serve on Committee B.



RC 55

MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

Public Testimony to the Alaska Board of Fisheries  
Mayor Larry DeVilbiss, Borough  
907 745-9682  
Larry.Devilbiss@matsugov.us

Mr. Chairman and Members of the Board; my name is Larry Devilbiss and I serve as the Mayor of the Matanuska Susitna Borough. The Mat/Su Borough encompasses 24,000 square miles and is home to Alaska's fastest growing community.

Our residents have a close affinity to Alaska's natural resources and rely on them to sustain sport, personal and subsistence uses. We are also heavily dependent on the tourism that these resources attract to provide for a strong and sustainable economy. It is this link to the natural resource base found within the Borough that drives the intense interest of our residents in the Board of Fisheries process.

In response to obvious conservation concerns for Northern District salmon stocks and the erosion of local opportunity to participate and utilize the fishery resources of the Northern District the Borough formed the Mayor's Blue Ribbon Sportsmen's Committee in 2007 for the purpose of representing the interests of the Borough in the preservation and allocation of available fish, game, and habitat for sportsmen's purposes.

The Sportsmen's Committee advises the MSB Assembly and the State of Alaska Boards of Fish and Game regarding fish and game practices and policies that affect the Matanuska – Susitna Borough.

The make up of the Blue Ribbon Committee makes it particularly well suited to address fisheries concerns. Serving on the committee we have experienced and well respected retired fish and game biologists, ex-Board of Fish members, guides, sportsmen and landowners. Their collective experience and knowledge make them particularly well suited to examine the problems facing fishery resources important to the Borough; and to provide workable solutions that address conservation and allocative issues.

The committee has identified three core areas of work:

- Conservation of diverse and productive natural habitats
- Scientifically sound and sustainable management
- Fair and equitable balance in allocation of fishery resources

Consistent with those core areas they have brought forward several important recommendations to solve the conservation crisis we know exists with some salmon stocks within the borough. I have every confidence that you as Board members will consider the information this outstanding Committee brings forward carefully and will make decisions in the best interest of the resource and to the benefit of all Alaskans.

In closing I would like to draw your attention to the **PC 27**; which is a document titled *Upper Cook Inlet 2011 Fishery Issues and Recommendations*. This booklet was produced by the Mat/Su Borough and is a treasure trove of information presented in a very readable and informative manner. It is intended to serve you as Board members in your efforts to understand the complex issues we face. We are proud of this product and I believe you will find it useful as you move forward in this process.

Through the work of the Blue Ribbon Committee, two resolutions were presented to the Borough Assembly and passed unanimously last week. One urges the Board of Fisheries to upgrade the Susitna sockeye stocks to the level of a Stock of Management Concern, asks the Governor and Legislature to support funding continuing fisheries research in the Northern District, and supports the need for a conservation corridor to move fish through Cook Inlet and into the Northern District so escapement goals can be achieved. The second resolution asks that no changes in current personal use fishing opportunities or bag limits be made, that personal use gillnet opportunities be expanded, and that adjustments be made to how the Fish Creek personal use fishery is managed.

We are excited and proud of the work this group of dedicated individuals has done on behalf of their fellow Borough residents.

Thank you

The Sportsmen's Committee consists of seven representatives from the following segments of the community: one representative from the Matanuska-Susitna Borough Assembly; one sport fishing representative; one hunting representative, and four at-large positions.



**Public Testimony to the Alaska Board of Fisheries**  
by Frankie Barker, Environmental Planner, Mat-Su Borough  
frankie.barker@matsugov.us, 907-746-7439  
February 2011

Mr. Chairmen and members of the Board, my name is Frankie Barker and I am the Environmental Planner for the Matanuska-Susitna Borough. In this capacity, I serve as the staff person for the Mayor's Blue Ribbon Sportsmen's Committee and also as a Steering Committee member of the Mat-Su Basin Salmon Habitat Partnership.

You will be hearing from many members of the Sportsmen's Committee during these meetings. My purpose in speaking to you today is to inform you about the extensive activities of the Mat-Su Basin Salmon Habitat Partnership in protecting and restoring salmon habitat in the Mat-Su.

- MSBSHP Formed in 2005 from existing partnerships concerned with fish habitat conservation in the Mat-Su. Steering committee - ADF&G, USFWS, NOAA, TNC, MSB, CVTC and rotating at-large (GLT & ARRI) meets 6x a year. Now there are over 40 partners from businesses, local, state and federal government and nonprofits
  - **Goals:** *increase knowledge about Mat-Su Salmon and their habitats, protect priority salmon habitats, mitigate impacts of threats to salmon and restore connectivity between salmon habitats*
- National Recognition & Funding – In 2007, MSBSHP was 1 of 4 original National Fish Habitat Action Plan Board recognized partnerships. NFHAP has awarded \$300,000 per year grant awards for Mat-Su projects which have been used to match and leverage other funds – approximately \$500,000/year has been spent on salmon habitat projects for the past 4 years.
- MSBSHP Strategic Plan was completed in 2008 with science and citizen working groups identifying threats to salmon such as filling of wetlands, culverts that block fish passage and loss of vegetation around water bodies. The plan proposed actions to address the threats (fish passage projects, wetlands mapping & assessment and public education).
- Fish Passage projects – MSBSHP partners have identified and prioritized culverts that block fish passage and have been working with MSB road service areas, nonprofits, local, state and federal agencies to replace culverts

In 1999, 495 culverts surveyed, 76% were barriers to juvenile salmon. From 2001-2010, 67 have been replaced. \$1.2 million in active projects in 2010.

- Education – 3 annual Salmon Science Symposiums have been held with 100+ participants and 25-20 presentations. MSBSHP also sends out quarterly newsletters, email list serves and information about funding opportunities.
- Restoration - One of the most ambitious restoration projects undertaken in the Mat-Su was the restoration of Moose Creek. Chickaloon Village Traditional Council realized that a mining railroad, long since removed, had rerouted the creek and actually created a waterfall that blocked adult salmon from reaching the upper reaches. In two phases, Chickaloon relocated the creek to the original bed, adding engineered log dams for juveniles. King salmon swam upstream within days after opening the creek back up. The project added access to 5 miles of new spawning habitat.
- Protection - MSBSHP and partner Great Land Trust applied for 1.5 million in Port of Anchorage mitigation funds to purchase and establish conservation easements on *wetlands and riparian areas in the Mat-Su – most are at confluence of Knik and Matanuska River, prime salmon habitat.*

MSBSHP was been recognized nationally by the Department of the Interior in 2008 with the Cooperative Conservation Award and in 2010 one of our members received an award from NFHAP Board for salmon education and outreach.

These are just a few of the many examples of conservation work being done by members of the MSBSHP to ensure that salmon habitat remains healthy for the future. We're proud of the work that has been accomplished and we recognize that we still have *much more to do.*

I appreciate the opportunity to share with you what the Salmon Partnership has accomplished since its inception in 2005 and invite you to join us next year for our Salmon Symposium to learn more.



MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

### 2011 BOF UCI Testimony

*My name is Howard Delo and I am a member of the Mayor's Blue Ribbon Sportsmen's Committee. I would like to be placed on committees D; E; and G.*

#### **Species Management Priorities (Proposal 159)**

Please refer to PC 27, pages 10 to 22 for reference material and RC \_\_\_\_ for my testimony.

*Proposal 159, submitted by MBRSC and Kenai River Sportfishing Association, seeks to restore critical language removed from the UCI Salmon Management Plan (Umbrella Plan) that addresses species priorities and management direction. These changes are needed to affirm long-standing policies and provide clear and comprehensive guidance to Department managers to minimize incidental commercial harvest of Chinook and coho stocks that are not specifically identified in step-down plans. The proposal recommends that:*

1.  *All king and coho salmon be managed primarily for sport and guided sport fishermen;*
2.  *All late-run Kenai, Kasilof and Northern District sockeye, chum, and pink salmon be managed primarily for commercial uses based on abundance;*
3.  *Commercial fisheries be managed to minimize the harvest of king and coho salmon and to provide personal use, sport and guided sport fishermen with a reasonable opportunity to harvest sockeye salmon resources.*

#### **Issue**

Species priorities for commercial and sport fisheries have been established in UCI by policy and regulation since 1977. Chinook and coho salmon were identified as primarily targets of sport fisheries. Sockeye, chum and pink salmon were identified as primarily targets of commercial fisheries. Fishery managers were directed to "minimize" the impact of commercial species harvest on Chinook and coho runs. Corresponding language was included in the UCI Salmon Management Plan ("Umbrella Plan") from 1977 through 1999.

With the continuing growth in complexity of fisheries and management requirements in UCI, the 1999 BOF made comprehensive revisions to the management plans. ***Beginning in 1999, many of the specific elements of the original Umbrella Plan, including species priorities and minimization directions, started being moved into the step-down management plans.***

***Species priority and minimization direction is currently provided in SOME management plans for SOME species and stocks, but not all.*** For instance, the Kenai late-run sockeye plan directs that this stock shall be managed primarily for commercial uses and that commercial fisheries shall minimize the harvest of Northern District coho, late-run Kenai kings, and Kenai River coho [5 AAC 21.360 (a)].

Similarly, the Northern District Management Plan identifies commercial priorities for chum, pink, and sockeye, and the sport priority for Northern District coho [5 AAC 21.358 (a)]. Current management plans do not identify fishery priorities for a number of coho and Chinook stocks that are not addressed by specific management plans. Management plan reorganization and revision over the years has gradually lost the explicit guidance contained in the historical Umbrella Plan for species priorities in UCI sport, personal use, and commercial fisheries. For instance, the 1999 BOF inadvertently failed to place a primary use provision into the Northern District King Salmon Management Plan when it dropped the primary use provision from the Umbrella Plan.

The lack of clear species priorities has been compounded by other changes to the Umbrella Plan by the 2008 BOF which prioritized established escapement goals as the primary management objective and affirmed the commissioner's use of emergency order authority to meet escapement goals at the expense of other management plan provisions. ***Recent fishery management practice has been to manage primarily for well-established lower and upper escapement goals for commercially valuable Kenai and Kasilof late-run sockeye. Because no explicit objectives are defined for minimizing the impact of commercial species harvest on Chinook and coho runs in some of the relevant management plans, this long-standing management provision of sport priority has been effectively ignored at the expense of the biological integrity of affected king and coho stocks and lost opportunity for thousands of Alaskan fishers.***

## **NORTHERN DISTRICT KING SALMON**

### ***Northern District King Salmon (Proposal 143)***

#### **Background**

□ ***The Northern Cook Inlet (NCI) king salmon stock collectively is the largest within the entire Cook Inlet drainage.*** The Susitna run is the fourth largest in Alaska, following the Yukon, Kuskokwim, and Nushagak rivers. ***The NCI king salmon stock is actually an aggregation of numerous discrete subpopulations - some large, some small, some road accessible, and some not.***

□ *Returns of NCI kings have declined significantly over the last decade. The trend in return numbers from 2004 through 2008 is steadily downward.* Productivity of most stocks has continued to spiral downward even when escapement goals were attained.

□ *Chronic escapement failures have persisted since the mid 2000's.* Minimum escapement goals were not reached in seven out of 15 systems surveyed in 2007 and 2008. In 2009, nine of the 16 systems surveyed failed to make minimum escapement. *In 2010, 13 of the 15 systems surveyed failed to make minimum escapement.*

□ Minimum escapement targets have not been achieved for four or more consecutive years for many king salmon runs including Chuitna River, Lewis River, Theodore Creek, and Alexander Creek.

□ The management strategy for NCI kings attempts to optimize fishing opportunities while assuring the attainment of escapement goals. However, escapement shortfalls have occurred despite significant harvest restrictions or closures of important sport fisheries throughout the Northern District.

□ History suggests that NCI king salmon can sustain a harvest of 40,000 to 70,000 fish. Harvests for all users have not exceeded 55,000 since the late 1980's and declined to an annual average of about 30,000 around 2005.

### **Management History**

□ NCI kings, along with other salmon moving through UCI prior to July 1, were originally designated in 1977 to be managed primarily for recreational uses, in compliance with subsistence priorities, in the Upper Cook Inlet Salmon Management Plan (5 AAC 21.363).

□ The 1986 BOF adopted a Northern District King Salmon Management Plan that provided the commercial fishery with modest (capped) access to what at that time was an expanding king salmon resource, with runs estimated between 150,000 to 200,000 annually.

□ In 1999 the BOF dropped the king salmon recreational use priority from the umbrella plan but inadvertently failed to place a primary use provision into the Northern District King Salmon Management Plan.

□ *There has been a trend toward expanding the Northern District king salmon commercial set-net fishery by the Board of Fisheries since 2002:*

- 1) □ In 2002, the BOF expanded harvest of king salmon by moving the opening of the Northern District Commercial Setnet (NDCS) fishery from June 1 to the first Monday on/after May 25.
- 2) □ In 2005, the BOF extended fishing periods for the NDCS from 6 hours to 12 hours duration.

- 3)  In 2008, the BOF further expanded harvest of king salmon by adding fishing periods. Openings were extended from three per season to four or five per season, dependent upon how the yearly calendar falls.

*Many sport king fisheries throughout NCI were restricted or closed early in both 2009 and 2010 in an attempt to make minimum escapement goals in the various systems, but many goals were not achieved anyway.*

Lewis River, Theodore Creek, and Alexander Creek have been closed to king retention since the last UCI BOF meeting.

In October 2010, ADFG recommended to the BOF that six NCI stocks be classified and managed as a Stock of Concern as required by the Policy for the Management of Sustainable Salmon Fisheries.

*We support the recommendation by ADFG to classify six Northern Cook Inlet (NCI) king runs as stocks of concern and further advocate the implementation of precautionary harvest strategies for those additional stocks that appear to be approaching Stock of Concern status.* We specifically recommend:

1.  Revising the Northern District King Salmon Management Plan to clarify that NCI king stocks are to be managed primarily for sport and guided sport uses in order to provide a reasonable opportunity to harvest these salmon over the entire run, as measured by the frequency of in-river restrictions;
2.  Revising the Northern District King Salmon Management Plan to return regulations for the Northern District commercial set net fishery to those in place prior to 2002, eliminating the earlier season start date, additional fishing periods and longer periods (6 hrs to 12 hrs) in response to lower king salmon productivity and Stock of Concern level escapement issues for 6 of 18 monitored streams with king salmon escapement goals throughout NCI;
3.  Closing Chuitna, Theodore and Lewis Rivers to king salmon fishing. All are currently open to catch and release king salmon fishing and have been since the mid 1990's even though minimum escapements are rarely achieved. In addition, establish a one mile radius stream mouth sanctuary area around each of these streams and the Little Susitna River (consistent with sanctuaries around most important salmon producing streams in the Central District) where all net fishing would be prohibited;
4.  Maintaining the sport king salmon fishing closure at Alexander Creek;
5.  Managing the eastside Susitna River tributary fisheries as a Unit (Regulatory Unit 2). Restricting daily fishing hours to 6 a.m. -- 11 p.m. from May 15 -- July 13, and closing the season one 3 day weekend earlier throughout all of Susitna River Management Unit 2 are supported as the most viable sport fishing responses to Stock of Concern problems identified by ADF&G on Willow, and Goose

Creeks. The MSBSC also supports elimination of proxy king salmon fishing throughout Unit 2 and Little Susitna River;

6.  Providing precautionary management of the highly used and economically important Little Susitna River sport king salmon fishery;
  - Shorten Little Susitna River sport king salmon season one week and creating one mile sanctuary area around the river mouth where all net fishing would be prohibited (consistent with Central District commercial regulations around important salmon producing streams);
  - Support relocating the Little Susitna River Weir back to a lower river location where it can once again be used for timely in-season assessment and management of king and coho salmon.

#### **Declining King Abundance:**

King salmon runs have declined in recent years throughout much of Alaska, driven apparently by a period of unfavorable ocean conditions. Effects have been compounded by habitat changes and/or pike introduction in some systems such as Alexander Creek. Environmental effects of floods in 2006 are also likely to have contributed to the recent pattern and, like variable ocean conditions are considered to be temporary. Effects of other factors such as pike will be longer term.

#### **Stocks of Concern:**

Recent declines have been particularly significant in many of the smaller, less-productive, and more vulnerable, king salmon stocks in western Cook Inlet (Chuitna, Theodore, Lewis) and eastside Susitna (Willow and Goose) streams. These streams, along with Alexander Creek, have been recommended for Stock of Concern designations. These recommendations follow the Policy for the Management of Sustainable Salmon Fisheries (PSF) and direct the Department to provide the Board, at regular meetings, with reports on the status of salmon stocks to identify any salmon stocks that present a concern related to yield, management, or conservation. For example, a 'yield concern' means a concern arising from a chronic inability, despite the use of specific management measures to maintain expected yields, or harvestable surpluses, above a stock's escapement needs. The policy defines chronic inability as "the continuing or *anticipated inability* (emphasis added) to meet escapement thresholds over a four or five year period, which is approximately the generation time for most salmon species' (5 AAC 39.222 (f)(5))." Only those stocks which met the criteria of failing to achieve minimum escapement for four consecutive years have been nominated by the Department. However, Northern District king returns over the next one to three years are expected to be weak resulting in an "anticipated inability" to attain prescribed goals (wording found in the PSF). Thus, nearly all NCI king salmon stocks will be eligible for designation as a Stock of Concern or could become so soon.

#### **Management Plan Coverage of Small Streams:**

(Proposal 144) The majority of the tributaries in the Susitna River drainage do not have any type of management plan. These include: Willow, Little Willow, Greys, Kashwitna, Caswell, Goose, Rabideux, Sunshine, Trapper, Birch, Montana, Clear, Sheep and Lake Creeks, and the Talachulitna and Chulitna rivers. Only a limited number of streams in the Susitna River drainage have king salmon index counts. Only the Deshka River has an inseason weir count and BEG. It remains unclear whether management provisions for the indexed streams provide adequate protection for the small streams throughout the drainage.

### **Sport Fishery:**

Sport fisheries affecting these king populations have been largely closed or restricted. Benefits of sport closures were not sufficient to avoid falling below escapement goals because fishing rates were generally not great enough to offset the downturn in natural stock productivity and commercial fishery effects. Continuing sport fishery limitations will be appropriate for these stocks in the interim until ocean survival improves in order to avoid critical low population sizes that might damage long term stock health. A variety of sport fishery management options might be considered in order to continue to provide some fishery opportunity while also ensuring that conservation needs are met.

### **Commercial Fishery:**

Recent expansion of the Northern District commercial fishery for kings is of particular concern given the declining trend in numbers and widespread sport fishery restrictions. While the commercial fishery does not harvest large numbers of fish relative to the sport fishery, total harvest and particularly exploitation rates have increased during the recent period of declining returns. For instance, the 2008 harvest in the Northern District of 4,000 fish is about 1,600 higher than the recent 10-year average harvest of 2,400 fish. This change was attributed to changes made by the BOF in 2005 that lengthened the fishing periods from six hours to 12 hours (ADFG Special Publication 09-07, page 15 under king salmon).

The commercial fishery impacts king salmon stocks that are recommended for the Stock of Concern designation. It is not possible to manage the Northern District commercial fishery by stock. During the April 28, 2009 BOF emergency teleconference meeting, a board member specifically asked ADFG staff if they could manage the NDCS fishery by specific stock, for instance, allowing harvest on Deshka kings while protecting Alexander Creek fish. The answer was no, they could not. Thus, the entire fishery affecting the Susitna drainage would need to be reduced in order to protect individual stocks affected by that fishery.

In western Cook Inlet, commercial set net fisheries continue to harvest Theodore, Chuitna and Lewis kings while fishing in the channels that lead into these rivers. Commercial fishing at the mouth of these rivers has been extremely effective because they have been able to fish the main channels at the mouth of the rivers, which allows them to fish both on the out-going and incoming tides. To protect the three rivers from losing their king salmon completely, expanded sanctuary areas would prevent fishing in the channels leading into the rivers.



Targeted commercial fishery harvest of Northern District kings remains contrary to the long established sport fish priority for king salmon that was first adopted in 1977. Recent expansion of the commercial harvest is particularly troubling given the widespread sport fishery restrictions to protect king escapement.

There also appears to be significant confusion regarding current management authority for restricting the NDCS fishery in response to low abundance. When the 2008 BOF expanded commercial harvest of Chinook by adding fishing periods, it was done with the understanding that ADFG could close the commercial fishery by emergency order if any conservation problems should arise. However, when conservation problems subsequently arose, the ADFG commercial manager claimed he was restricted from taking any conservation action outside those identified in the Northern District King Salmon Management Plan.

Failure to take management actions to meet escapement goals would be inconsistent with revision to the UCI Salmon Management Plan adopted by the 2008 BOF that no provision within a specific management plan is intended to limit the commissioner's use of emergency order authority to achieve established escapement goals as the primary management objective. Restrictions to the ND commercial set-net fishery did occur in both 2009 and 2010, primarily because the Northern District King Salmon Management Plan mandated the restrictions based on restrictions that the Sport Fish Division made to the king salmon recreational fisheries in the Northern District drainage. The BOF imposed shortening the first two periods from 12 hours to six hours in 2009 and ADF&G shortened one period to six hours in response to a no bait restriction on the Deshka River in 2010.

### **MSBSC Recommendations & Proposal [143]**

MSBSC proposals and recommendations include but are not limited to the following:

- 1. We support the recommendation by ADFG to classify six Northern Cook Inlet (NCI) king salmon runs as Stocks of Concern and further advocate the implementation of precautionary harvest strategies for those additional stocks that appear to be approaching stock of concern status.*
- 2. Revise the Northern District King Salmon Management Plan to clarify that NCI king stocks are to be managed primarily for sport and guided sport uses in order to provide a reasonable opportunity to harvest these salmon over the entire run, as measured by the frequency of in-river restrictions (as per Proposal 143).*
- 3. Revise the Northern District King Salmon Management Plan to return regulations for the Northern District commercial set net fishery to those in place prior to 2002, eliminating the earlier season start date, additional fishing periods and longer periods (6 hrs to 12 hrs) in response to lower king salmon productivity and Stock of Concern level escapement issues for 6 of 17 monitored streams with king salmon SEGs throughout NCI.*

4. Close Chuitna, Theodore and Lewis Rivers to sport king salmon fishing. All are currently open to catch and release king salmon fishing and have been since the mid 1990's even though minimum escapements are rarely achieved. In addition, establish one mile radius stream mouth sanctuary areas around each of these streams and Little Susitna River (consistent with sanctuaries around most important salmon producing streams in the Central District) where all net fishing would be prohibited.

5. Maintain the sport king salmon fishing closure at Alexander Creek.

6. Manage the eastside Susitna River tributary streams as a Unit (Regulatory Unit 2). Restricting daily fishing hours to 6 a.m. -- 11 p.m. from May 15 -- July 13, and closing the season one 3 day weekend earlier throughout all of Susitna River Management Unit 2 are supported as the most viable sport fishing responses to Stock of Concern problems identified by ADF&G on Willow, and Goose Creeks. The MSBSC also supports elimination of proxy king salmon fishing throughout Unit 2 and Little Susitna River.

7. Provide precautionary management of highly used and economically important Little Susitna River sport king salmon fishery:

Shorten sport king salmon season one week, creating one mile sanctuary area around the river mouth where all net fishing would be prohibited (consistent with Central District commercial regulations around important salmon producing streams).

Support relocating the Little Susitna River Weir back to a lower river location where it can once again be used for timely in-season assessment, management, and possibly as an abundance indicator for other important NCIMA king salmon and coho salmon producing streams.

Although Willow and Goose Creeks are the only eastside fisheries recommended for Stock of Concern status, other stocks are on the "brink" of becoming similarly classified, specifically Sheep Creek (an Eastside tributary) and Lake Creek (a tributary of the Yentna River). The development of a precautionary harvest strategy for all of Fishery Management Unit 2 appears prudent. These stocks are modest in abundance; all are road accessible and have limited areas open to fishing. Each stream is open only three days per week during the time when king salmon are most abundant, with very restrictive methods and means of harvest. Each supports mixed stock harvests near the confluence with the Susitna River and most, if not all, were severely impacted by the 100-year flood that occurred in 2006. Closure of one or more Unit 2 streams can be expected to shift fishing pressure to adjacent waters that remain open.

When practical, we prefer reducing harvest in eastside Susitna tributaries by method and means restrictions, rather than time and area closures which reduce opportunity. It is challenging to identify meaningful methods and means alternatives because fisheries are presently highly regulated (artificial lures only, must stop fishing after harvesting a king salmon, one king salmon daily bag limit, a king salmon 20" or longer cannot be removed from the water if intended for release, etc). However, elimination of king salmon proxy fishing, requirements for single hook artificial lures, etc. should be considered and evaluated.

We suggest considering changes in the seasonal limit only if other suggested changes prove insufficient. Reducing Unit 2's five king salmon seasonal limit could reduce the amount of time summer visitors spend in the Borough. Little harvest reduction might result if other anglers simply harvested fish that limit-restricted anglers passed up. Catch and release mortality would likely increase since reduced limit anglers would likely be more selective of which fish they chose to keep. Finally, a reduced limit in a selected area would likely shift pressure to adjacent waters where the 5 king salmon seasonal limit remained (but where conservation concerns exist as well).

The committee recognizes, however, that when presented with the condition of very low stock abundance, time and area closures of eastside Susitna king fisheries are both appropriate and necessary. Effective time and area options (Unit 2) include: allow king salmon fishing only from 6 am-11 pm) and/or eliminate the last (3rd) weekend (Sat-Mon) of king salmon fishing. Open the last weekend, if appropriate, by Emergency Order (EO) as was a common practice in the past.

Since the entire East Fork Chulitna River (located in Unit 6) is already restricted to single hook artificial lures only from September 1 -- July 13, king salmon run timing is later for East Fork Chulitna fish, and it already likely has a lower king salmon harvest rate, we suggest reducing fishing hours to 6 a.m. through 11 p.m. from May 15 -- July 13, but request king salmon season dates remain intact.

Recognizing that the Little Susitna River as one of the highest participated in and economically important sport fisheries in the NCIMA, and the fact that it has experienced in-season king salmon closures during 2009 and 2010, and failed to attain its king salmon escapement goal minimum in 2010, we recommend: a) ending the Little Susitna River sport king salmon season by regulation one week earlier starting July 7 rather than July 14; and b) creating a one mile radius sanctuary area around the Little Susitna River Mouth (off limits to commercial fishing and consistent with stream mouth sanctuary size for most important salmon producing streams in Upper Cook Inlet's Central District).

We unanimously support ADFG moving the Little Susitna River Salmon Counting Weir back to a downstream location where it can once again be used as a more timely in-season management tool, beneficial to attaining both Little Susitna River king salmon and silver salmon escapements, and as an abundance indicator for other NCIMA streams that have experienced king salmon or coho salmon escapement problems. Finally, using Little Susitna Weir in this manner would provide an in-season measurement of when Knik Arm and other NCIMA salmon runs, once again, may be strong enough to provide greater fishing opportunities and increased economic benefits.

#### Personal Use Fishery

- Adopt no new regulations that reduce opportunity, participation or harvest in the Kenai and Kasilof dip net fisheries;
- Expand the Kasilof personal use gillnet fishery (no specific proposal to do this but could be done through Proposal 185);

Reduce the escapement trigger for opening the Fish Creek personal use fishery from 70,000 to 50,000 (can be addressed through Proposal 195).



RC 58

MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

Jim Colver  
Mat-Su Borough Assemblymember  
P.O. Box 427  
Palmer, Alaska 99645  
(907) 746-5300 wk  
[jimcolver@mtaonline.net](mailto:jimcolver@mtaonline.net)

**February 21, 2011**

**To: Alaska Board of Fisheries**

**Re: 1) Northern District Salmon in Crisis and 2) PU Kasilof Set Gillnet recommendation**

***Testimony:***

**Mr. Chairman, I wish to serve on committee D because I participated in subsistence and personal use fished since 1980.**

Hello, I'm Jim Colver. I serve on the Mat-Su Borough Assembly and I'm Vice-Chairman of the Mat-Su Sportsmen's Committee.

All Salmon species in the Northern District are in Crisis-

- Returns of king salmon have declined significantly over the last decade. The returns trend steadily down from 2004 through 2008
  - In 2009, nine of the 16 systems failed to make minimum escapement.
  - In 2010, 13 of the 15 systems failed to make minimum escapement.

The Mat-Su Borough believes that the sustainability of Northern District salmon runs have been placed at risk by the harvest of northern bound salmon within mixed salmon stocks

## **ECONOMICS**

We believe that the fishery management system in Upper Cook Inlet is out of step with the economic and cultural realities of today.

- Management of UCI salmon continues to be driven by commercial fisheries despite greater economic value and participation in sport and personal use fisheries
- Less than 20% of the Upper Cook Inlet salmon are allocated to sport anglers and personal use fisheries
- Sport fisherman spent over \$100 million in the Matanuska-Susitna Borough and in total, \$700 million in UCI in 2007.
  - supporting 8,000 jobs and generating \$55 million in local and state taxes

## **PU “Alaskans fill their freezers on the Kenai Peninsula”**

- South Central Alaskans participate in the Kenai and Kasilof personal use fisheries due to a lack of local opportunities.

There are two primary issues concerning current personal use fisheries:

- delivery of fish in sufficient numbers to provide reasonable fishing opportunities
- crowding due to concentration of current fisheries into limited areas.

Over the past year our committee has been involved in the Kasilof Special Use Area Plan, addressing impacts of the PU fishery

One critical issue is the lack of adequate space and time to allow all of the Alaskans who wish to participate in the Kasilof Gillnet PU fishery in June - resulting in a derby style fishery.

- The impacts of this important fishery have been addressed by enforcement via the Kasilof Plan rather than by spreading out the users.
- This is because there is only 1 mile of beach on either side of the mouth to execute the fishery and the north side is mainly mudflats and not very fishable

**We recommend the Board spread out the users and reduce crowding with additional fishing time on the same beaches in July, by opening an additional PU Gillnet period, July 10-26, 6 am to 11 pm. Amend proposal 185, to add one additional PU set gillnet opening. See page 10 of this RC for drafting of proposed regulations to accomplish this. This period will provide for harvest during the peak of the sockeye run, helping control escapements.**

In closing, I urge you to take immediate action to restore health of all the northern district salmon stocks and to adopt policies that level the playing field for all user groups, ensuring access to the resource by all Alaskans.

**End of Testimony.....**

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## **PERSONAL USE FISHERY OPPORTUNITY**

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### **Background**

- The majority of statewide personal use (PU) fishing for salmon occurs in Cook Inlet, primarily in the Kenai and Kasilof rivers.
- Personal use fisheries have grown steadily since 1996 with 468,000 sockeye harvested in 37,500 angler days in 29,600 permits during 2009. From 2007- 2009 an average of 25,462 Upper Cook Inlet personal use salmon permits were issued (Dunker 2010).

- ❑ Sockeye escapements into Fish Creek in the Matanuska-Susitna Borough were sufficient to open this fishery in 2009 and 2010. The last previous opening was in 2001.
- ❑ *Alaskans fill their freezers on the Kenai Peninsula.* The majority of the PU fishers harvest sockeye salmon from the Kenai and Kasilof River sockeye runs. Many thousands of Matanuska - Susitna Borough and Anchorage residents participate in Kenai, Kasilof and Copper River personal use fisheries due to the lack of comparable local opportunities.
- ❑ From 2007-09, 85% of the Kenai River Dip netters, 81% of Kasilof River Dip netters and 78% of the Kasilof River Gillnet personal use fishers were from other than the Kenai Peninsula, primarily Anchorage and Mat-Su (Dunker 2010).

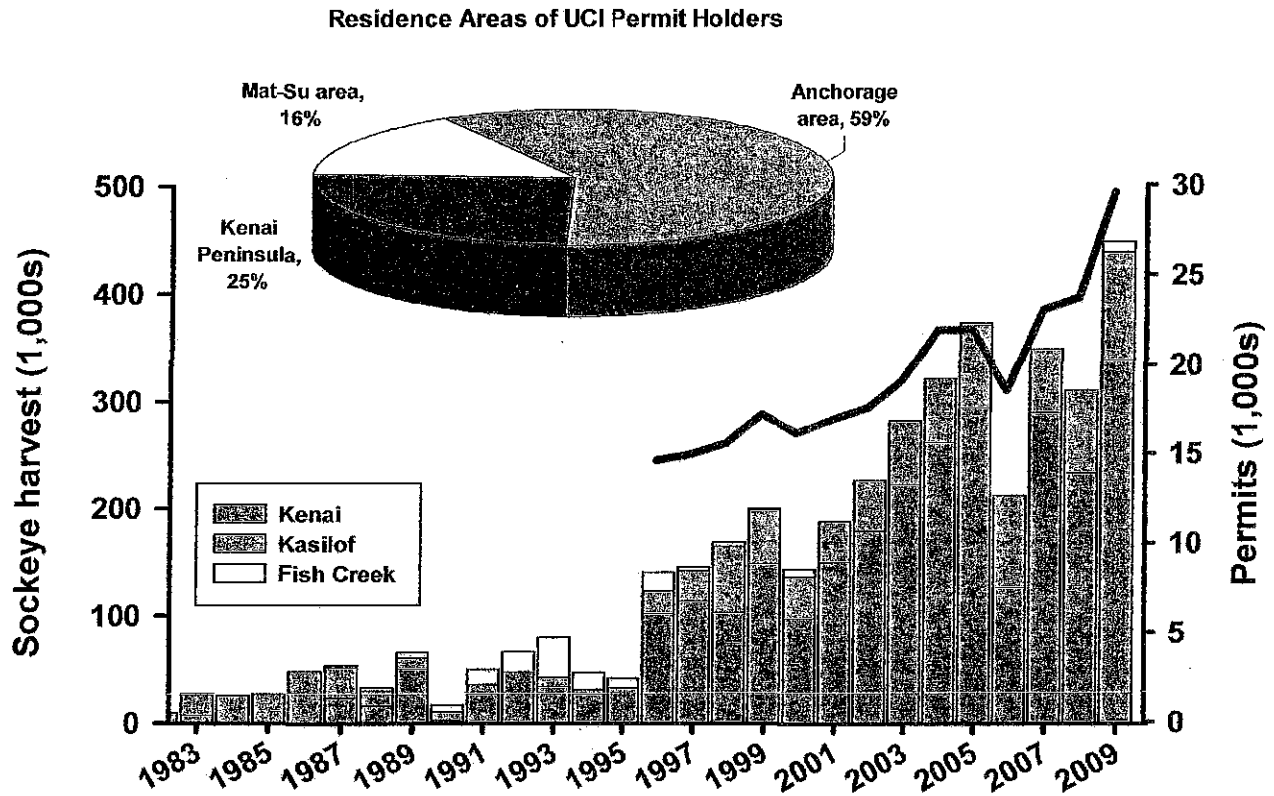


Figure 1. Personal use fishery harvest of sockeye, 1983-2009.



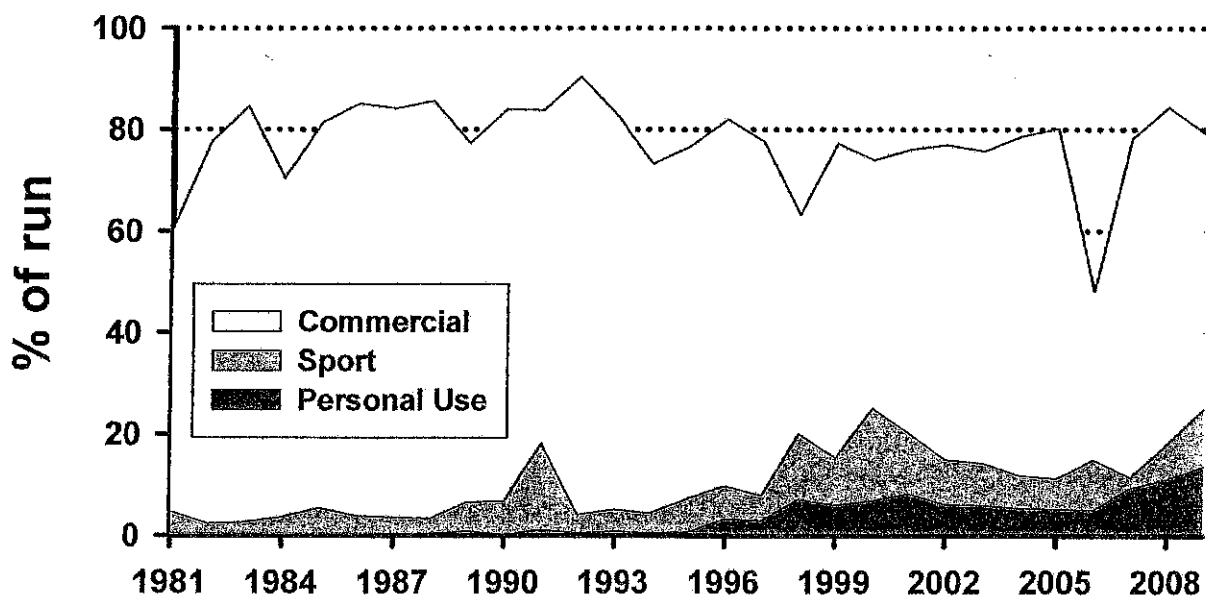


Figure 2. Harvest rates of Kenai sockeye in sport, personal use, and commercial fisheries.

### Economic Impact

- Personal use fishing has become an extremely valuable economic activity. Together with sport fishing, they create more economic activity than the entire Upper Cook Inlet commercial salmon fishery.
- Participants residing in the Matanuska-Susitna Valley and residents from outside Southcentral Alaska harvested *more salmon per permit, on average, than residents from either Anchorage or the Kenai Peninsula.*
- From 2007-2009 there were an average of 31,624 household fishing days, with average household sizes of 2-4 people for a majority of the permittees (Dunker 2010). Using the UCIPU permit holder household size data contained in table 8 of the 2010 Dunker PU report, a total number of participants is estimated to be 75,138 Alaskans (based on 25,462, the 2007-2009 average number of PU permits issued).
- The 2007 study of Economic Impacts and Contributions of Sportfishing in Alaska prepared for ADFG by Southwick Associates cites a daily expenditure by Alaskan residents of \$91.73 per day per person for unguided freshwater fishing.
- The direct economic impact of UCIPU fishing can be determined to be \$ 6,892,442 ( $\$91.73 \times 75,138 = \$ 6,892,442$ ). This is direct impact, without applying a multiplier for the indirect impact, which boosts the economic activity substantially and the number of jobs supported and local sales taxes collected.

## History

- The BOF adopted a regulatory definition of personal use fishing in 1982. Personal use regulations were also created in 1982 at the request of the BOF. The statutory definition of personal use was enacted in 1986.
- Prior to 1996, gillnet and dip net fisheries at both the Kenai and Kasilof rivers were opened only when a specified sonar estimate was achieved. Opportunities were extremely limited due to very high harvests by commercial fisheries.
- *Until the mid-nineties, subsistence/PU gillnet fishing occurred on most beaches along the east, west and north shores of Cook Inlet. In 1996 a decision by BOF reduced the available beaches along Cook Inlet for the personal use (PU) gillnet fishery to a two mile area encompassing north and south of the mouth of the Kasilof River.*
- Beginning in 1996, the BOF established a dip net season of Jul 10 to Aug 5 (later amended to Jul 31), eliminating the sonar trigger for opening to compensate for the gill net subsistence closure. This effectively shifted a majority of the PU fishery to the lower Kasilof and Kenai Rivers.
- From 1996 through 2001, the Kasilof personal use gillnet fishery opened on June 16 and closed by emergency order when approximately 10 to 20 thousand fish had been harvested. Beginning in 2002, the personal use gillnet season changed to June 15-24, and the 27-day dip net fishing season (Jul 10 through Aug 5) was changed to a 44-day season (Jun 25 through Aug 7).
- In 2002, the management plan was modified to manage the Kenai dip net fishery more conservatively until in-season abundance information became available. Season dates were unchanged but hours were reduced.
- In 2008, the Board adopted requirements for use of four-stroke or DFI two-stroke motors for boats in the personal use fishery in the lower four miles of the Kenai River downstream from the Warren Ames Bridge in order to control hydrocarbon pollution and provide consistency with newly-adopted DNR regulations upstream.

## Issues

The personal use fishery at the mouths of the Kenai and Kasilof rivers is among the most successful of all non-commercial fisheries in UCI. The fisheries are a popular and valuable family experience for many Southcentral Alaskan families, even becoming more important during the recent economic downturn. Camping on the beach and catching fish is the highlight of many families' summer. Personal use fisheries for Kenai and Kasilof sockeye provided by current plans are consistent with the public demand for these opportunities. Significant allocation of sockeye harvest to the sport and personal use fisheries is supported by the Board's allocation criteria.

Two primary issues concerning current personal use fisheries are:

- delivery of fish in sufficient numbers to provide reasonable fishery opportunity and
- crowding due to concentration of current fisheries into limited areas.

Fish delivery is regulated primarily by the pattern of commercial fishery openers in the East Side Set net Fishery off of the mouths of the Kenai and Kasilof Rivers. This fishery is managed with a series of regular periods and emergency orders. Openers are scheduled based on fish abundance to control fish reaching

the rivers in order to achieve but not exceed in-river sonar and escapement goals. Personal use fisheries require significant numbers of fish to be available for the relatively inefficient dip net gear to be effective. However, the fishing power of the set net fishery is tremendous – the fleet can effectively harvest over 90% of the run moving through the fishing area on any given day. The unpredictable nature of commercial fishery openings also keeps the in-river fisheries off balance by producing a stop and start pattern in fish returns. This is extremely disruptive of scheduled travel plans or trips and is particularly troublesome for people traveling from other areas. It also exacerbates crowding issues where people must fish in the limited intervals where significant numbers of fish are available.

BOF decisions subsequent to 1996 have concentrated PU fishers at the river mouths causing habitat degradation impacts and becoming an annoyance to local residents. Bluff and dune erosion at the mouth of the Kenai River became a problem and was resolved with creative and cooperative management by the City of Kenai, the Alaska Department of Natural Resources (ADNR) and ADFG.

Recently in 2010 Kasilof area residents and various other groups tackled the same issue at the mouth of the Kasilof. A permit to install a fence to protect the beach grass dunes and wetlands was approved, yet allowing access to the river on a traditional dirt roadway. In addition the ADNR recently created the Kasilof Special Use Area Plan (KSUAP) to manage land use and fishery issues such as when ropes can be set out for gill netting and camping restrictions, including a proposed fee to cover maintenance and enforcement.

**One critical issue is the lack of adequate space and time to allow all of the Alaskans who wish to participate in the Kasilof River Gillnet PU fishery in June to do so, resulting in a derby style fishery. “.....The Kasilof gillnet fishery remains the least popular, based on participation, fishery (Decker 2010).” This is because there is only a 1 mile stretch of beach on either side of the mouth to execute the fishery and the north side is mainly mudflats and is not very fishable by shore gillnet.**

**Issues surrounding this overcrowded, yet important, fishery have been addressed by enforcement via the Kasilof Special Use Area Plan, rather than by spreading out the users. Alaskans who had their opportunity and the quality of experience to harvest PU fish reduced are bearing the burden. An article in the Anchorage Daily News on September 29, 1996 detailed the action and the public outcry at the reduction in the PU gillnet fishery. The last paragraph of the story reads, “ Several board members wanted to revisit that decision and were interested in expanding the gillnet season and expanding the area open to nets.**

**ADFG biologist Paul Ruesch said the fishery could still be managed if the two-mile beach area at the mouth of the Kasilof was doubled or tripled."**

#### **Recommendations**

MSBSC has submitted no proposals for revision of this plan but strongly supports the personal use fisheries of both the Kenai and Kasilof rivers. We recognize that people management issues need to be addressed any time large numbers of individuals and families gather anywhere. Below we offer some simple solutions to current issues regarding the personal use fisheries.

**1. Adopt no new regulations that reduce opportunity, participation or harvest in the Kenai and Kasilof dip net fisheries.**

Commercial fishery windows should be maintained or enhanced so sport and personal use fishers can be certain to have access to the resource. Use of the terminal fishery in the Kasilof Special Harvest Area should be avoided.

**2. Expand use of the personal use gillnet fishery on the Kasilof.**

Spread out the users and reduce crowding with additional set gillnet fishing time on the same beaches in July. Open an additional Kasilof Gillnet PU period, July 10-26, 6 am to 11 pm. This period provides access during the peak of the sockeye run which normally occurs during the week of July 13 thru 20. Additional harvest in this fishery can help control sockeye escapements, particularly when escapement goals are threatened in years of large returns. This concept was well received by all attendees at the KRSUA ADNR public meeting in Wasilla on Dec. 2, 2010.

**3. Reduce the escapement trigger for opening the Fish Creek personal use fishery from 70,000 to 50,000.**

This fishery currently opens by EO only when the upper end of the escapement goal is projected to be exceeded. This practice resulted in escapement well above the goal in both 2009 and 2010. The 2010 escapement of 126,823 was unacceptably high. It unnecessarily prevented harvest of sockeye that could have been taken with no effect on future production.

**ADFG Comments:** *The Department is neutral on the suite of proposals under consideration by the Board that affect the allocation of fish between the personal use and other fisheries. The Department opposes opening a Fish Creek personal use fishery by date without regard for run size due to the erratic nature of the run and the fishing power of the fishery – however, the MSBSC proposal's recommendation to revise the trigger remedies that concern.*

**1) The history of each sport, personal use and commercial fishery;**

*Sport, personal use, and commercial fisheries each have a long history in UCI. All fisheries have evolved over time in response to changing values, demands, and opportunities. For instance, commercial fisheries have evolved with reduced dependence on chum and pink salmon and increased focus on the ESSN. The growth of the sockeye sport and personal use fishery results from increasing demand from the growing population in South Central Alaska. At the same time, the value of the commercial fishery is highly variable in part due to increased competition from aquaculture and globalization of the seafood market.*

**2) The characteristics and number of participants in the fisheries;**

*Personal use fishery permits have been issued to an average of 20,000 households per year since 2002. The Kenai and Russian rivers are the most heavily sport fished waters in the state, averaging over 300,000 angler days per year for all species (Begich & Pawluk 2007). At least 100,000 anglers fish each year in the Kenai River system (Haley et al. 1999). Cook Inlet commercial fisheries included 571 drift and 738 set gill net permits registered in 2003 (Shields 2007). Commercial fishers number about three operators and crew numbers per permit with an estimated 3,000 total commercial fishers in 1994 (ISER 1996).*

**3) The importance of each fishery for providing residents the opportunity to obtain fish for personal and family consumption;**

*The Kenai and Kasilof personal use fisheries represent one of the few opportunities for a majority of Alaska residents to obtain fish for personal and family consumption.*

**4) The availability of alternative fisheries resources;**

*The Kenai sport and personal use fisheries for sockeye are particularly important with the frequent closure of the Fish Creek personal use fishery. The only other alternative is the Chitina personal use fishery on the Copper River.*

**5) The importance of each fishery to the economy of the state;**

*Recent economic analyses have highlighted the economic significance of sport, personal use and commercial fisheries to the state's economy. The Kenai fisheries are readily accessible to the nearly two-thirds of the state's population that lives in the Cook Inlet area. UCI commercial salmon fisheries account for a small fraction of the total Alaska salmon catch.*

**6) The importance of each fishery to the economy of the region and local area in which the fishery is located;**

*Sport, personal use, and commercial fisheries for sockeye are all vital parts of the local Kenai economy. The Kenai Peninsula Borough estimated the economic effect of sportfishing in the*

borough in 2003 at \$664 million. The ex-vessel value of the UCI commercial catch has averaged approximately \$16 million over the last ten years.

7) **The importance of each fishery in providing recreational opportunities for residents and nonresidents.**

*In-river sport and personal use fisheries provide significant recreational opportunities for Alaska residents. This fishery has grown into a tremendously popular family activity. These sockeye sport fisheries provide significant recreational opportunity for both residents and nonresidents.*

**Upper Cook Inlet Personal Use Salmon Fishery Management Plan [5 AAC 77.540]**

(a) Salmon may be taken for personal use under this section only under a personal use permit issued under 5 AAC 77.015 and 5 AAC 77.525; in addition to the requirements under 5 AAC 77.015, a person

(1) shall, before a permit may be issued, show the person's resident sport fish license, or proof, satisfactory to the department, that the person is exempt from licensing under AS 16.05.400 ; the person's sport fish license number shall be recorded on the permit;

(2) shall record all fish harvested on the permit, in ink, immediately upon harvesting the fish; for the purpose of this paragraph, "immediately" means before concealing the salmon from plain view or transporting the salmon from the fishing site;

(3) shall return the permit to the department by the date specified on the permit.

(b) Salmon may be taken with a set gillnet in the Central District as follows:

(1) from June 15 through June 24 ~~and July 10 through July 26~~.

(2) fishing periods will be daily from 6:00 a.m. to 11:00 p.m.;

(3) repealed 6/22/2002;

(4) salmon may be taken only from ADFG regulatory markers located at the mouth of the Kasilof River to ADFG commercial fishing regulatory markers located approximately one mile from the mouth on either side of the Kasilof River; fishing is prohibited beyond one mile from the mean high tide mark and is also prohibited within the flowing waters or over the stream bed or channel of the Kasilof River at any stage of the tide;

(5) salmon may be taken only by set gillnets as follows:

(A) a set gillnet may not exceed 10 fathoms in length, six inches in mesh size, and 45 meshes in depth;

*Alaska residents only*

*Harvest recording*

*Harvest reporting*

*Kasilof gillnet personal use fishery  
June Kasilof opener consistent with  
the earlier run timing of this stock*

*~~MSHSC recommendation is  
highlighted in green.~~*

*Limited to beaches adjacent to river  
mouth*

## Featured Restorations

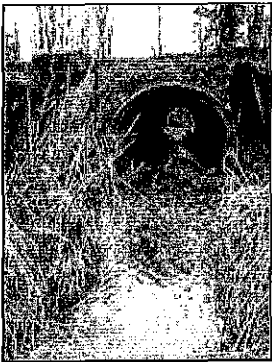
Slikok Creek (Soldotna)

Daniel's Creek (Nikiski)

Bean Creek  
(Cooper Landing)

Leif Creek (Nikiski)

Hidden Creek  
(Cooper Landing)



Above: Completed Restoration



Above: Culvert acting as fish barrier

## Slikok Creek (Soldotna)

### What

Slikok Creek Culvert Replacement

### Where

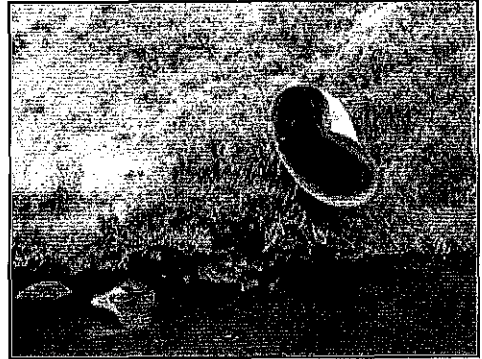
College Loop Road in Soldotna, AK

### Why

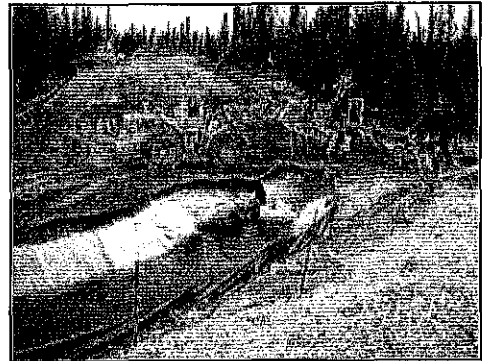
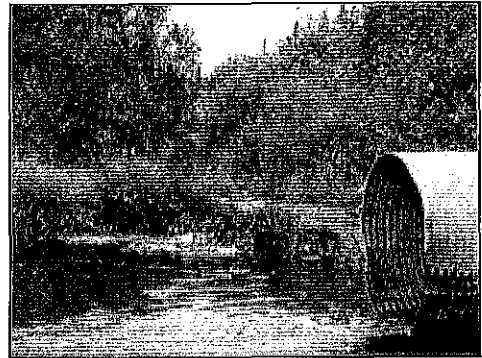
Slikok Creek is a tributary to the Kenai River. It is a nursery supporting several thousand early run Chinook, Coho and Sockeye spawning and rearing habitat. The confluence of Slikok Creek and the Kenai River is located near the Kenai Peninsula College, approximately 19 river miles upstream from the mouth at Cook Inlet. The creek begins as the outflow from Nordic Lake on the Kenai National Wildlife Refuge and provides many miles of spawning and rearing habitat for chinook, coho, and sockeye salmon. This habitat is classified as essential fish habitat by the National Marine Fisheries Service (NMFS).

The creek is a low gradient, meandering creek. The stream has four road crossings: College Loop Road, Kalifornsky Beach Road, Sterling Hwy. and A.R.C. Loop Road. These road crossings were evaluated by the Alaska Department of Fish and Game (ADF&G) in their 2000 effort to assess passage of juvenile salmonids. According to the ADF&G study, three of the four crossings act as barriers to upstream migrations, the worst being College Loop Road.

In the summer of 2003 and 2004 the



Above/Below: Pre-restoration culverts



Above/Below: During Construction

Kenai Watershed Forum (KWF) more closely evaluated each of the three problem road crossings. It was clear that the College Loop Road presented the greatest potential to block juvenile anadromous fish. It is the furthest downstream, thus blocking the largest amount of habitat. It also created the most obvious deviation from the natural channel conditions. The crossing consisted of two culverts, one to pass the channelized flow through the road prism with a secondary overflow culvert for flood stage waters. Both culverts were improperly sized and placed to mimic the natural conditions present in the stream.

Because of the importance of this delicate nursery to the health of the early run chinook salmon run, we replaced the improperly sized culvert with a new much larger culvert that properly fits the natural conditions of the stream.

**When**

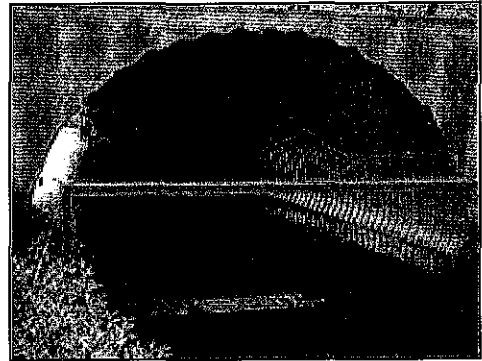
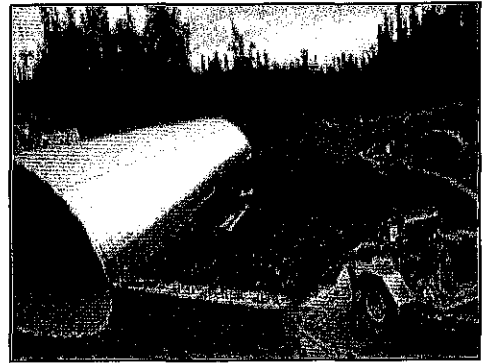
June-August 2007

**Cost**

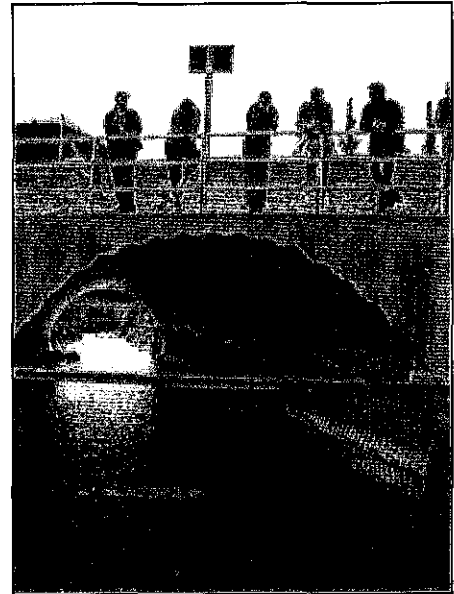
\$300,000+

**Who**

Kenai Watershed Forum  
U.S. Fish & Wildlife Service  
City of Soldotna  
AK Department of Fish & Game  
ConocoPhillips  
Kenai Peninsula Economic Development District  
Leavens Foundation  
Cook Inlet Aquaculture Association  
Wm. J. Nelson & Associates  
Peninsula Construction, Inc.  
Kenai Peninsula College  
Kenai River Center  
Soldotna Chamber of Commerce



Above/Below: Restoration Complete!





RC 60



# Kenai River Professional Guide

ASSOCIATION

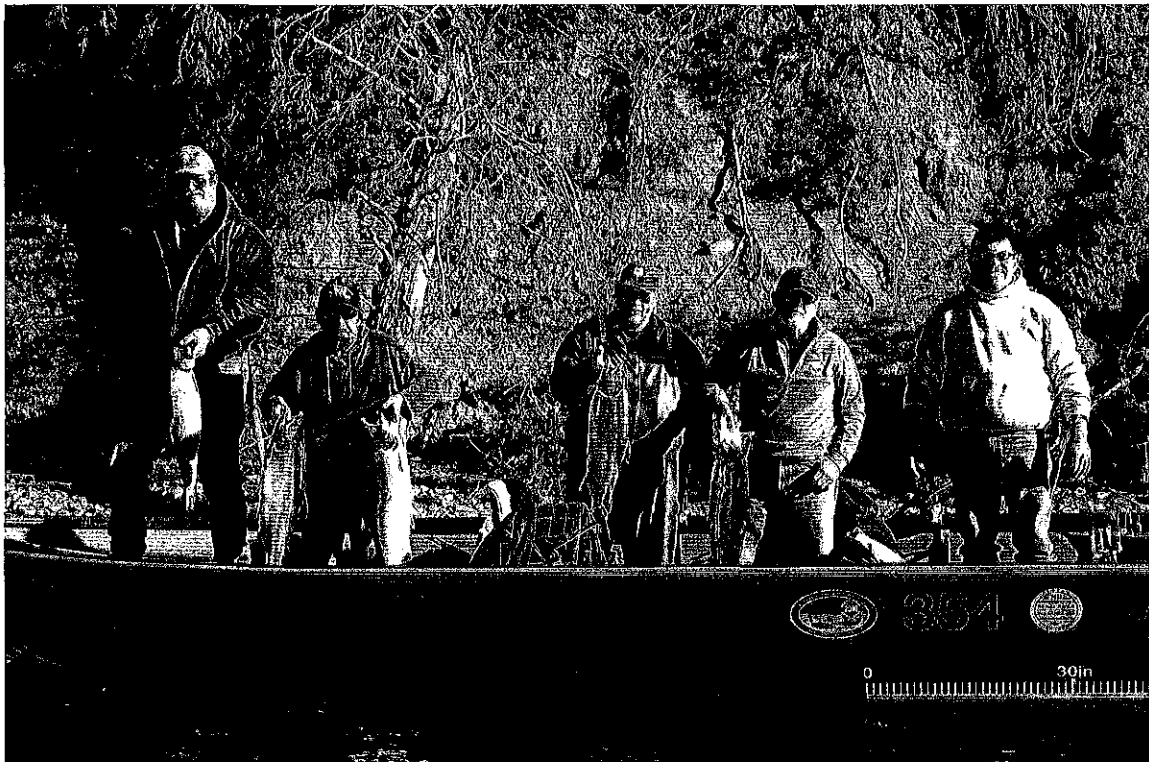
660



...fishing industry on  
*the Kenai and Kasilof Rivers &*



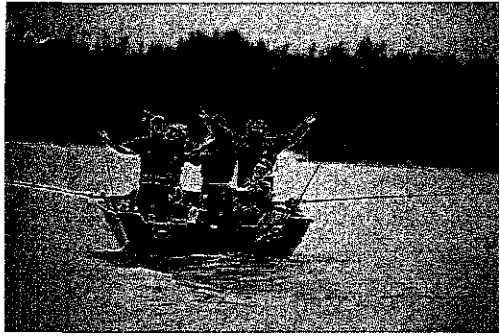
"Take A Vet Fishing Day" was started the year after the 9/11 attacks on our Nation to honor our American Veterans. The Kenai River Professional Guides Association and members from the Eagle River Elks Organization started the event with area veterans and veterans from the Anchorage V.A. Domiciliary. The guides donate the morning to take the Veterans on a guided silver salmon fishing trip on the Kenai River, on or around September 11 each year, followed by a BBQ lunch hosted by the Soldotna Elks Lodge. This is one of the free charitable events involving the Kenai River Professional Guides Association. This will be the 10th annual "Take a Vet Fishing Day and we are planning to host 100 veterans this September 2011.





## **Take a Kid Fishing Day!**

KRPGA volunteers spend one day of their busy season each year taking kids fishing. This is our way of giving back to the community and helping local kids learn to love fishing. The purpose of this event is to target children who rarely or never get to go fishing. This event is a great opportunity for many local kids to get out fishing for the first time. We live and guide in one of the most beautiful places on earth with numerous lakes and rivers teeming with fish. It is always an eye-opener to find out that many of these kids have never been fishing in the area. In the past, we have taken the kids fishing on the world famous Kenai River, the Kasilof River, and Johnson Lake. The guides love to show the kids a great time on the water, and the joys of catching fish. The fishing event includes breakfast, a guided fishing trip, a barbecue, and one-on-one time with KRPGA's fishing guides. Everyone has a great time!



Kenai River Professional Guide Association is honored to be able to put on this Wounded Warrior event that gives back to our brave men and women who serve our country and sacrifice their lives so we can enjoy our freedoms. This year will be our fourth annual event and it all started here at the Board of Fish when you gave us permission to hold this event on a non guide day, Thank You! The event consists of two days of fishing on the Kenai River. As they arrive at noon we make sure they have a fishing license, a lunch, and send them out fishing. We also provide one night lodging, a fine sit down dinner with entertainment the first night. Day two starts off early with breakfast, jumping on to boats and going fishing at 6:00 am. At 1:00 the troops return to an all you can eat BBQ. After the BBQ we hand each one a real nice gift as a door prize, so no one goes home empty handed. All guides donate their time fuel and equipment and of coarse stories!





## **Johnson Lake Salmon Celebration**

Alaska's Department of Fish and Game's Johnson Lake Salmon Celebration is held every first Tuesday of May at Johnson Lake in Kasilof Alaska. It is open to all area grade school aged children and typically see's around 600 participants. Amongst the many great interactive stations at the celebration the Kenai River Professional Guide Association and its volunteers put on a session focused on fly and spin casting. Each group of kids are broken into two groups and given a 15 minute introduction to fly and spin casting in an interactive and fun environment. This is a fun activity the kids enjoy as we get many repeat kids wanting to prefect their casting skills. They enjoy the competition amongst their friends casting into age specific targets KRPGA provides.



## Healing Waters

The Kenai River Professional Guide Association would like to thank Tom Vania and the Alaska Department of Fish and Game for the use of our special permit for the first Sunday in June 2010.

On this day we were scheduled to host the US Military group of Healing Waters. This is a group that is federally funded to support troops in their rehabilitation through Fly Fishing and Fishing in general. We were to take a small group of 12 anglers fishing on the lower Kenai for King Salmon. The base of the event would be Harry Gaines Fish Camp, with 3-4 hours of fishing from Ed O'Connor, Aaron Cooper, Josh Hayes and Scott Eggemeyer's boats. We would have reconvened at Harry Gaines for shore fishing with fly rods and a great BBQ. This event was planned with no cost to the soldiers in rehab and a full donation of time and funds from the registered guides as well as Harry Gaines Fish Camp.

It should also be noted that Scott Eggemeyer and Josh Hayes, along with other registered guides, have donated their boat and time to smaller events, with this group that did not require permitting. In the late fall these guides have donated their time and efforts to the troops that have sacrificed their all for our way of life.

Thank you for continuing to let us provide a service to our men and women that have given their service to us as a nation.

We hope as an Association to continue to provide these days of fishing and fun on the Kenai River.

Thank You

RE: Alaska Board of Fisheries Testimony – 2011 Upper Cook Inlet Hearings February 20, 2011

As a 30 year fisherman in the Beluga Area, it is important to testify on my proposals 196, 271, and 289.

**Proposal 196** – Would make the Beluga River Personal Use Salmon dip net fishery more accessible to the seniors and afford them an opportunity to harvest a fair share of Red Salmon.

This proposal would increase the open area by ¼ mile and give seniors access to areas that they could easily access and because of the slower currents, allow them the ability to use a net.

The current open period of July 20<sup>th</sup> is after the peak of the Sockeye and during 2010 we did not catch a Red Salmon. The Beluga River fishery has a strong Sockeye run and there would be little impact with a 10 day earlier opening and the existing 500 fish cap. If any King Salmon would enter the net, they would be immediately released by turning the net over. I do not believe the incidental King Salmon catch would be a factor.

The Beluga River is one of those unique rivers that has little fishing pressure and is an untapped resource. The area biologist comments at the 2008 board meeting, indicated that Fish and Game has no data on this drainage and the river appears to be strong.

**Proposal 271** – Addresses the King Salmon problem in the Lewis and Theodore Rivers.

The “Chuitna, Theodore and Lewis River King Salmon Plan” recently released by Fish & Game addresses some of the issues, but I do not think it addresses all the issues or goes far enough. Although I was happy to see that they made a comment on the negative impact that the coal mine would have on the Chuit River.

Maybe Fish and Game is listening, as the purpose of the proposal was that the King issue needs to be elevated to the biologists and other personnel with the expertise. There are numerous factors that can be attributed to the decline of King Salmon that range from the mortality rate of catch-and release, increased number of seals in rivers, other predators like the Northern Pike, or problems on the high seas.

In the interim, some stopgap items that might be considered:

1. Prohibit the catch and release fishery of King Salmon, unless accidentally caught.
2. If catch-and release is to be retained, require that only barbless single hook be used.
3. Determine the impact of the invasive species. If northern pike is a major factor, the problem needs to be elevated to the biologists and other personnel with the expertise. Then there is the issue with seals. I have seen more than a hundred (100) at the mouth of the Theodore River.

It is recommended that any state-wide catch and release fishery should first address the mortality rate and the use of a barbless single hook. There was information presented in the 2008 Cook Inlet Board of Fisheries, Committee G handout, page 334 (attached), that addresses mortality. It

says, "Results from this study showed that a much higher mortality rate (69%) than initially thought for coho salmon that were released by sport fishers in the lower river." The reference was to the Coho salmon and this fact could relate to the larger King, at a higher mortality level.

**Proposal 289** – Addresses the Northern Pike taking over Threemile and Chuitbuna Lakes.

A solution to this invasive species, Northern Pike, goes way beyond what an individual citizen is capable of recommending. This problem needs to be elevated to the biologists and other personnel with the expertise. It is recommended that the Board consider assigning this problem to those that have the expertise to address a solution

More liberal rules might serve as a stopgap until there is a solution:

1. Increase the number of fishing lines that can be used in summer when sport fishing for northern pike to more than just a single line and more in line with 5 line regulation when fishing through the ice.
2. Allow floating 5 jugs (milk, juice, etc containers) with a line and weight when fishing for northern pike.
3. Allow nets to be used for northern pike.
4. etc

Duane Gluth  
7021 Foothill Drive  
Anchorage, AK 99504

e-mail: [dgluth@att.net](mailto:dgluth@att.net)

Phone: 907-338-0401

Attachment: 2008 Cook Inlet Board of Fisheries, Committee G handout, page 334.



**WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED?** This proposal would reduce harvest and catch and release related mortality of coho salmon by an unknown amount.

**BACKGROUND:** In 1993 the department conducted a coho salmon hook and release mortality study in the lower reaches of the Little Susitna River. This study was prompted by anglers concerns over dead or dying coho salmon observed in the lower river. Results from this study showed a much higher mortality rate (69%) than initially thought for coho salmon that were released by sport fishers in the lower river. Under the current regulation, downstream of river mile 32.5, you must quit fishing once you have harvested your limit of salmon. However an angler may continue to catch and release as long as they have not retained a bag limit. This regulation was adopted by the board in 2000 to reduce the catch and release related mortality of coho salmon in the lower river.

The department operates a weir on the Little Susitna River to count coho salmon. This weir is located at river Mile (RM) 70 and is approximately one mile upstream of the Parks Highway Bridge. Escapements of coho salmon counted past the weir have been well within and above the department's escapement goal range of 10,100 to 17,700 for nine of the past 10 years. The average annual harvest of coho salmon from the Little Susitna River is about 15,000 fish, with an additional 8,000 fish being released. If half of the coho salmon that are released end up as mortalities as many as 2,000 - 4,000 additional coho salmon may not survive to spawn. On years where coho salmon returns are low this mortality could be significant in terms of achieving the escapement goal, however that has not been the case in the past decade.

**DEPARTMENT COMMENTS:** The department **OPPOSES** this proposal. There is currently no biological reason to reduce the sport harvest of coho salmon on the Little Susitna River.

**COST ANALYSIS:** The Department does not believe that approval of this proposal may result in an additional direct cost for a private person to participate in this fishery.

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**PROPOSAL 346 - 5 AAC 60.122 Special provisions and localized additions and exceptions to the seasons, bag, possession and size limits, and methods and means for the Knik Arm Drainage Area.**

**PROPOSED BY:** Matanuska Valley Advisory Committee.

**WHAT WOULD THE PROPOSAL DO?** This proposal would allow the use of bait when sport fishing for king salmon on the Little Susitna River from July 1 through July 13.

**WHAT ARE THE CURRENT REGULATIONS?** In the Little Susitna River only unbaited artificial lures may be used from July 14<sup>th</sup> through August 5<sup>th</sup>.



RC

62

MAYOR'S BLUE RIBBON  
SPORTSMEN'S COMMITTEE  
Matanuska-Susitna Borough  
350 East Dahlia Avenue • Palmer, AK 99645

Andy Couch  
Public Testimony  
Board of Fisheries

Please Refer to RC 62 and PC 27.  
COHO SALMON CONCERNS

Hello Chairman Webster and Board of Fisheries Members,

My name is Andrew Couch, I own and have operated a sport fishing guide business on rivers of Northern Cook Inlet for more than 25 years. I serve on the Matanuska Valley Fish and Game Advisory Committee and the Matanuska - Susitna Borough Mayor's Blue Ribbon Sportsmen's Committee

■ this will be my personal testimony.

After a series of low coho salmon returns in the late 1990's, the Board of Fisheries (1) regulated Upper Cook Inlet commercial drift fishing more into a 3 mile drift fishery harvest zone know as the Kenai and Kasilof sections, (2) established an earlier Central District set net fishery season closing date, (3) reduced the allowed number of set nets to one during a portion of the August Northern District set net fishery, and (4) reduced the sport coho bag limit from 6 to 3 in Upper Cook Inlet saltwater, and from 3 to 2 in most freshwater areas along with reductions in time and area on some Knik Arm and West Cook Inlet sport fisheries. All but the drift fishery changes were included in a specific year 2000 Coho Salmon Conservation Plan.

From adoption of the Coho Salmon Conservation Plan through 2005 the two current coho salmon escapement goals for all of Upper Cook Inlet were met every year. In 2006 the Little Susitna River coho escapement goal was not fully counted through the weir, but likely achieved, as the weir was submerged 14 days during prime count time.

In years following success of the Coho Salmon Conservation Plan, ADF&G's Commercial Fish Division has said that commercial regulations could be liberalized once again to allow commercial fishing later into August, and more drift fishing in the center of Upper Cook Inlet with little or no impact on coho stock health. At the same time, ADF&G's Sport Fish Division advised against re-establishing the 3 coho fresh water limit in more popular sport fisheries, because Sport Fish Division believed during years of low returns -- if commercial fisheries AND sport fisheries both took larger shares of the resource the same inadequate coho escapement problems that led to creation of the Coho Salmon Conservation Plan would result.

Following direction of the Department's opposing biological recommendations, the Board of Fisheries expanded drift fishing in the middle of the inlet, and adopted more liberal commercial fishing seasons in August, while keeping the priority sport users (as identified in Cook Inlet management plans) restricted to a two coho limit on the most utilized fresh water wild coho fisheries.

Then, out of cycle in 2009, the Department changed the primary sustainable salmon escapement goal upon which all salmon stocks swimming north during July depend for maintaining sustainable escapement levels, and finally in 2010 ADF&G decided to avoid compiling the inseason sonar index of Stock of Concern Susitna River sockeye salmon until AFTER the season.

How have these changes affected coho salmon allocations, harvests, and escapement levels in Upper Cook Inlet?

As graphed on page 23 of PC 27 (the Mat-Su Book) Upper Cook Inlet commercial coho salmon harvests frequently exceed those of the "primary user" sport fish coho harvests. Without regulation change during this 2011 Board of Fisheries meeting the disparity in allocation and harvest (away from the primary use sport fishery) may continue to grow.

During 2009 (when the Department reduced the Yentna / Sustina sockeye goal) ADF&G clearly failed to attain the Little Susitna River coho salmon escapement goal for the first time since 1999. In addition, partially because of a lack of timely inseason assessment, ADF&G issued zero emergency restrictions in any attempt to address the situation.

In 2010, after the Department dropped inseason enumeration of the Yentna River sockeye salmon sonar index, ADF&G failed to attain both the Little Susitna River coho salmon escapement goal AND the Jim Creek coho salmon escapement goal. Once again, because of lack of timely inseason assessment, ADF&G issued zero emergency restrictions, and no management action was taken inseason to assist reaching either goal. It should be noted that these two goals were the only coho escapement goals for the entire Upper Cook Inlet during 2010. In addition, with no timely direct inseason assessment of either goal, it is incumbent upon regulations to be precautionary rather than exploitive -- If attaining spawning escapement goals is the primary measurement of management success.

How can the Board change current management to ensure better attainment of coho salmon escapement needs, better meet management plan intent designating sport as the primary use of Northern coho salmon stocks, and maximize benefit from the resource as called for in the Alaska constitution?

Proposal 133. Consider adopting intent language -- "To manage ALL early and late run king salmon and ALL coho salmon primarily for sport and guided sport fishermen. Following the blueprint successfully established in the 1970's, it makes good sense to manage these smaller abundance stocks that have extreme value to the sport fishery, for maximum benefit from this high value fishery. At present, Upper Cook Inlet sport fisheries have shown the ability to harvest all or most of the harvestable surplus of these stocks at a much higher dollar value to the state of Alaska if given the opportunity.

Proposal 126, 123, 124. To meet long established spawning escapement goals and provide sustained yield of all salmon stocks swimming to Northern Cook Inlet during the months of July and August re-establish a meaningful Conservation Corridor through the middle of Upper Cook Inlet. This tool was used successfully for many years to attain long established escapement goals with the bonus of providing harvestable surplus fish for upstream users dependent upon them. Current Action Plan regulations for the drift fleet are more Harvest Maximizations than meaningful Conservation Measures.

Proposal 140. Shorten commercial fishery seasons based on a ratio of coho to sockeye harvest rates. A ratio may be difficult -- however a more defined season ending date -- perhaps August 5, after which on average years most of the commercially valuable sockeye fishery is over could be appropriate. If needed to harvest a RARE large surge of late sockeye, an Emergency provision could be provided. In any event, a fishery harvesting mostly coho should be closed to follow management plan intent calling for minimizing the commercial harvest of coho. Such action, as mentioned early, would help maximize benefit from the sport fishery.

Proposals 22, 23, 200, 202, 202, 203, 204. If the Board adopted the above suggestions, then managing toward management plan intent language to minimize commercial harvest of coho would be a reality, and perhaps enough coho salmon would once again be reaching Upper Cook Inlet streams to return to a 3 coho bag limit throughout Upper Cook Inlet.

Please join me, the Matanuska - Susitna Borough Mayor's Blue Ribbon Sportsmen's Committee and the Matanuska Valley Fish and Game Advisory Committee in recommending ADF&G move the Little Susitna River weir back to a down stream location where it can once again be used for inseason coho and king salmon management purposes.

Thank you for the opportunity to relay coho salmon concerns covered by a large number of proposals before you. 3 or 4 Board actions could make a very positive change, and allow good harvest opportunities for all user groups.

Sincerely,

Andrew N. Couch  
PO BOX 155  
Palmer, AK 99645  
907-746-2199

=

RC # 63

# UPPER COOK INLET FINFISH

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KENNY RODGERS PUBLIC TESTIMONY

2/22/2011

VARIES PROPOSALS CONCERNING UPPER COOK INLET FISHERIES: 138,139,145,149-152,169 IN FAVOR OF AND LOTS OF CONCERNS. REPORT TO AK BOARD OF FISHERIES (CHUITNA, THEODORE & LEWIS RIVER KING SALMON STOCK STATUS AND ACTION PLAN, 2011)

THANK YOU BOARD MEMBERS FOR LETTING ME HAVE THIS OPERTUNITY TO SPEEK TODAY. MY name is Kenny Rodgers. My family and I are lifelong Alaskans and Alaska natives. We have fished the waters of Alaska all of our lives. We have fished in Cook Inlet since the early 60's

I currently fish in the east side of the northern district in Cook Inlet, on a fish site that has been in operation as early as 1938. There are several issues that concern the northern district, the pike, possible dams, coal wanting to eliminate 11miles of stream in a only clear water system that's surrounded by a glaciaierly feed waters, urbanization, polluted waters and a loss of salmon habitat, single aerial survey of salmon streams, lack of salmon genetic studies of the lower inlet king salmon marine fishery in the spring; where are these kings going???

Let's use accurate numbers when we count kings. As a commercial fisherman, no matter what size our kings are, 1 lb. to 100 lbs. they are counted as a king on the fish ticket to fish and game. These same small kings (under 20inches) are not counted in the sport count and on the sport license.

As for our king season we are already managed by emergency order by area, time and gear by the department under the authority directed by you the board already. We have had a cap of 12,500 kings and we have never exceeded this cap or have had this raised. On average we have caught 2700 king per season on average over the past 5 years and 2400 since 1993, with the season May to September. Not all areas of the northern district, catches kings bound for the systems in question.

I was taught how to catch and process fish as a small child and passed this same traditions on to my children, who also learn from their grandparents as well as I did. Like the rest of the people who have testified on how the salmon are important to them, commercial fishing is important and vital to me and my whole family. It provides a living, food and work ethics that are vital to the working world as well as family bonding. Commercial fishing was brought about to the native people through the white man coming into their culture. It has replaced a traditional method of living, food and barter system that was used.

As you may have heard here today and yesterday, people have spoken of the past. My grandfather, stood before the board of fish, many years ago (60's) and have predicted what would happen here in Cook Inlet if you did not manage the system biologically and to keep the politics out of it. Look where we are at now, today. With a properly managed system there is plenty of resource for all.

With the personal use issue, there is fish for all; it's a matter of having a solid set of rules and regulations that is universal throughout the state. If personal use is for Alaskans only, then the fish should stay in the state and not be sent out of state to friends and relatives, for they are not

Alaska residents. Nor should be allowed to participate in the fishery. This would elevate a lot of contravesity. The whole person use fishery was brought on as a way to help control the over escapement into the river systems on years of high over escapement. Now it's gotten out of hand.

When there is a concern for conservation and fishing needs to be restricted, then it needs to be closed equally and at the same time across the board for all user groups. When the escapement is suffient to be reopened, then it should reopened equally across the board for all.

Thank you for your time and consideration to these issues. I would like to be considered in participating in the committees dealing with these issues.

# SPECIAL REGULATIONS in COOK INLET SALT and FRESH WATERS

## KING SALMON

### Annual/Seasonal Limits

A total annual limit of 5 king salmon 20" or longer may be taken from fresh waters of Cook Inlet north of the latitude of Point Adam, and from Cook Inlet salt waters—except that king salmon harvested in Cook Inlet salt waters south of Bluff Point from October 1 to March 31 (see map on page 12) and king salmon longer than 20" but less than 28" harvested in the Kenai River from January 1 through June 30 are not included in the limit.

Of these 5 total king salmon:

- no more than 2 may be taken from the Kenai River,
- no more than 2 may be taken from Deep Creek.

There are no king salmon annual or seasonal limits in effect for North Gulf Coast or Prince William Sound salt waters.

If you intend to release a king salmon 20" or longer, you may not remove it from the water. A king salmon 20" or longer removed from the water must be retained, and becomes a part of the bag limit of the person originally hooking it.

### Recording requirement

Anglers who keep a king salmon 20" or longer from an area with an annual limit or from an area when a seasonal limit is in effect must immediately record that harvest. See box on right for recording instructions.

There are no king salmon recording requirements in effect for North Gulf Coast or Prince William Sound salt waters.

## SHARKS

### Annual limit

There is a total annual limit of two (2) sharks taken from any Alaska salt water.

**Inclusive shark species:** any species of the order Lamniformes, Squaliformes, or Carcharhiniformes, including (but not limited to) salmon sharks, Pacific sleeper sharks, and spiny dogfish (sand or mud sharks).

### Recording requirement

Anglers who keep a shark must immediately record that harvest. See box at right for recording instructions.

## RAINBOW/STEELHEAD TROUT

### Annual limit

- There is a total annual limit of two (2) rainbow/steelhead trout 20" or longer taken from any fresh water of Cook Inlet north of the latitude of Point Adam, except in the stocked lakes of the Knik Arm and Susitna River areas, where the annual limit is ten (10) rainbow/steelhead trout 20" or longer.

### Recording requirement

Anglers who keep a rainbow trout 20" or longer must immediately record that harvest. See box on right for recording instructions.

## NORTHERN PIKE

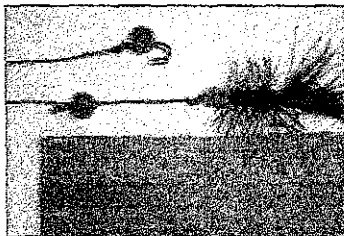
Except in Alexander Lake, northern pike may be taken by spear, sport fishing gear, ice fishing gear, or by bow and arrow (the arrow must be attached to the bow with a line and the arrow must have a barbed tip). When fishing through the ice for northern pike, anglers may use two hooks on a single line, provided that both hooks are attached to one single piece of bait.

In the following lakes, sport fishing through the ice for northern pike is allowed using 5 lines, provided that: (1) standard ice fishing gear is used, (2) the fishing gear is closely attended, and (3) all other species of fish caught are released immediately.

Northern Cook Inlet: Alexander, Anderson, Memory, Prator, Long, Crystal, Shell, Onestone, Chuitbuna, Figure Eight, Sucker, Flathom, Lower Vern, Upper Vern, Lockwood, Whiskey, Hewitt, Donkey, Threemile/Tukhallah, Trapper, Trail, Neil, and Kroto lakes, No Name/Cabin Lake, and lakes of the Nancy Lake Recreation Area (except Nancy Lake). Flowing waters of Alexander Creek, Fish creeks (both in lower Susitna River and Kroto Slough), Witsoe Creek, and Indian Creek.

Kenai Peninsula: Mackey Lakes, Tote Road Lakes, and Cisca, Derks, Sevena, Stormy, and Union lakes. □

## Attractors or Beads. . .



In flowing waters of West Cook Inlet, Kenai Peninsula, Anchorage Bowl, Knik Arm, and Susitna River drainages (Cook Inlet drainage flowing waters) attractors (beads) when used with a fly, lure, or bare hook must be either fixed within two inches of the hook or free sliding on the line or leader. For proper spacing, see illustration [left]. For the purposes of this section, a bead not attached to the hook is an attractor, not a fly.

A bead fished on the line above a bare hook is not legal gear in fly-fishing-only waters (see page 4).

## HOW TO RECORD YOUR HARVESTS—for species with annual/seasonal limits



For anglers who are required to purchase a sport fishing license, space is provided on the back of the license. Immediately upon landing a king salmon 20" or longer, a rainbow/steelhead trout 20" or longer, or any species of shark, fill out the harvest information on the back of the license. **YOU MUST USE INK.**

A free harvest record card is available at ADF&G offices and most license vendors for individuals not required to be licensed: children under 16, anglers with the ADF&G Disabled Veteran's Permanent ID (DAV) card, and resident anglers 60 or older who have the ADF&G PID card. Immediately upon landing a king salmon 20" or longer, a rainbow/steelhead trout 20" or longer, or any species of shark, fill out the harvest information on the card. You must use ink.

If you lose your sport fishing license or harvest record card, license vendors can issue duplicates. You must transfer (re-record) your harvest information onto the duplicate. □



SELLER

ALASKA DEPARTMENT OF FISH & GAME  
GENERAL SALMON TICKET

DO NOT WRITE IN THIS SPACE

DO NOT WRITE  
IN THIS SPACE

A09 082754

Vessel  
Name

R

Fishery  
Name  
Permit  
Number

SALMON SELECT  
KENNY R RODGERS  
S04H 55062V  
1001B 647845 66

ADF&G NO.

Date Landed Date Caught

Proc.  
Code

053110

Company

8 10  
ACOSTA SPDS

STATISTICAL AREA

Stat. Area	%
247-70	100

Area Caught

(Nearest bay or headland)

Salmon Deliv. Code is required on ticket book cover or instructions

SPECIES	CODE	DELIV. CODE	NO. OF FISH	POUNDS	PRICE	AMOUNT
Kings	410	11A				
King		11A	9	64		
Reds	420		4	23		
Cohos	430					
Pinks	440					
Chums	450					
Salmon Roe and Other Species - Species Code and Deliv. Code required						
Subtotal						
Less Salmon Enhancement Tax @						

<b>TOTAL</b>						
--------------	--	--	--	--	--	--

NOT SOLD/PERSONAL USE - 95		NOT SOLD/PERSONAL USE - 95		PARTIAL DELIVERY
SPECIES	NUMBER	SPECIES	NUMBER	Ticket No.
King	2			Processor

Cash Advance

Fish Received by

*[Signature]*

Permit Holder's Signature

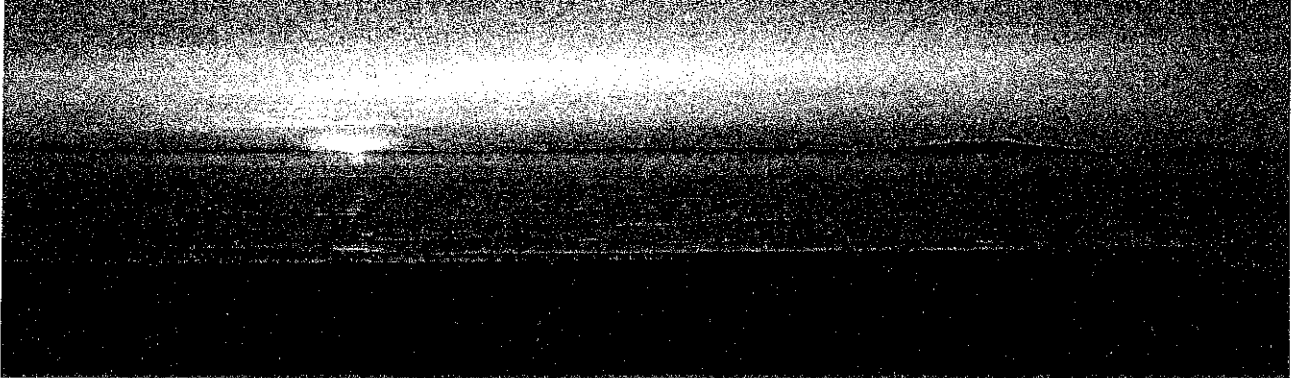
*[Signature]*

I HEREBY ATTEST THAT THESE FISH WERE CAUGHT IN COMPLIANCE WITH ADF&G REGULATIONS.

# SETNETTING AT POINT POSSISION

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The setting operation at Miller Creek in the upper Cook Inlet has been fished since the very early 1930's, starting with the Maule's, up until I took over in 2000. We are a small family operation.

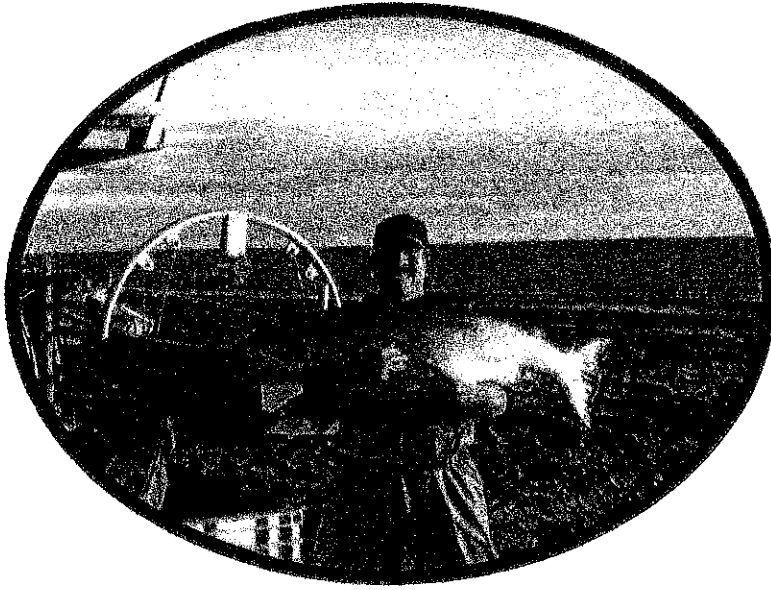


Settning at Point Possession is a very unique fishery. You have Mount Susitna (The Sleeping Lady), Mount McKinley in the back ground, along with eagles, bears both brown and black, moose, seals and whales in the area. The location is very remote and everything has to be hauled in and out by boat or truck for about 25 miles from the nearest road. We start fishing for king salmon on Memorial Day Weekend and end the season fishing for silver salmon sometime in the middle of September.

Quality of the salmon is held in high standards. As soon as the fish is picked out of the nets they are bled and put into ice water to help get the blood out and to keep the salmon cool. As soon as the boat hits the beach, the fish are placed in insulated totes and packed in ice. The salmon are never dropped or thrown to prevent bruising and never picked up by the tail. We also make sure all the fish are clean (no dirt or sand on the fish) to help insure a high quality product.

Proper care and handling of the salmon has been installed and introduced to me at a young age. I am a third generation setnetter and my kids are fourth generation setnetters here in Cook Inlet. The methods of handling and care for salmon have evolved a lot in the past 10 years with icing and bleeding. I've been certified for the proper care and handling of salmon for the Kenai Wild Program. I pass these methods

and ideas onto my children as they were with me. Fishing for salmon is one of my favorite passions in



life.

It's always great to end the day with a nice big fire and sitting by the fire and looking at the sun setting over the Sleeping Lady and Mount McKinley, enjoying some fresh caught salmon.

Kenny



RL 64



*"Village with a Past, City with a Future"*

210 Fidalgo Avenue, Kenai, Alaska 99611-7794  
Telephone: 907-283-7535 / Fax: 907-283-3014  
[www.ci.kenai.ak.us](http://www.ci.kenai.ak.us)

## **Testimony to the Board of Fish February 20, 2011**

Good Afternoon, my name is Rick Koch, I represent, and am the City Manager for the City of Kenai. The City of Kenai occupies a unique position, in that four distinctly different fisheries take place within the City's corporate boundaries.

There are subsistence fisheries, commercial fisheries and processing facilities, sport fisheries and the State's largest personal use fishery.

Recognizing the importance of all of these fisheries to the City of Kenai, its citizens, and to all Alaskans, the City Council of the City of Kenai, on February 2, 2001, passed a resolution that they directed me to have read into the record at this meeting:





Suggested by: Counselors Brian Gabriel and Joe Moore

**CITY OF KENAI**

**RESOLUTION NO. 2011-14**

A RESOLUTION OF THE COUNCIL OF THE CITY OF KENAI, ALASKA, SUPPORTING SOUND FISHERIES-MANAGEMENT PRACTICES AND DIVERSIFIED HARVEST OPPORTUNITIES IN THE COOK INLET.

WHEREAS, the City of Kenai has benefited from healthy well-managed salmon runs as a central part of its economy and quality of life for its citizens and visitors for over one hundred years; and,

WHEREAS, over the past several years, State of Alaska fishery policymakers have adopted regulations to increase opportunities for Alaska residents to harvest certain species of salmon, but have done so without regard to the impacts of those fisheries have on our community; and,

WHEREAS, over the past several years, Cook Inlet commercial fishers have experienced substantial reductions in fishing opportunities that adversely impacted their businesses and our local economy, while other users have not been burdened by the same conservation or harvest reallocation measures; and,

WHEREAS, the City has invested several hundred thousand dollars in an attempt to mitigate the impact of the resident-only fishery, by building infrastructure solely for the benefit of this fishery, often at the expense of spending capital on projects that would be otherwise utilized by citizens year around; and,

WHEREAS, in addition to business opportunities for many citizens of the Kenai Peninsula Borough and the State of Alaska, the Cook Inlet commercial salmon industry is a critical component of our local economy because it provides jobs and is a reliable tax base on both real and personal property; and,

WHEREAS, because it has been able to rely on a predictable stream of salmon harvested in Cook Inlet during summer months, the local seafood processing industry has been able to expand its season by months and now includes processing other species such as halibut and cod, as well as fish flown in from other regions of the State; and,

WHEREAS, the local commercial salmon industry is a vital part of our local economy because it is supported by local commercial fishers, processors and the many vendors that rely on its business year around; and,

WHEREAS, improvements in salmon handling and quality in both the commercial harvest and processing sector has resulted in salmon prices nearing 20-year highs -- substantially increasing fish taxes to the Borough and the City of Kenai; and,

WHEREAS, adoption of regulations that significantly reduce the opportunities for Cook Inlet commercial fishers to harvest and process salmon during its traditional summer season, without a sound biological reason for doing so, will result in long-term and perhaps irreversible damage to our local economy; and,

WHEREAS, the Alaska Department of Fish & Game, *2011 Upper Cook Inlet Sockeye Salmon Forecast* indicates a commercial, sport, and personal use salmon harvest of 4.4 to 4.8 million salmon in Cook Inlet, most of which will be processed within the City of Kenai, and suggests managers have reached an acceptable balance between the needs of competing salmon harvesters.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, as follows:

Section 1: Supports sound fisheries management practices in Cook Inlet specifically with respect to the Kenai River salmon runs; and,

Section 2: Respectfully requests the State of Alaska Board of Fisheries to recognize the historical and economic significance of the salmon runs that return to the Kenai River by avoiding adoption of regulations that reduce opportunities for all Cook Inlet and Kenai Peninsula ~~commercial~~ harvesters and City of Kenai fish processors and other businesses without a sound biological reason for doing so.

Section 3: Upon passage, a copy of this resolution shall be forwarded to Governor Sean Parnell, Alaska Department of Fish & Game Commissioner Cora Campbell, Alaska Board of Fisheries members (individually), Senator Tom Wagoner, Speaker of the House Mike Chenault, and Representative Kurt Olson.

PASSED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, this second day of February, 2011.

  
PAT PORTER, MAYOR

ATTEST:

  
Carol L. Freas, City Clerk

Salmon

The City of Kenai owns the tidelands on which the personal use fishery is conducted, the tidelands on which commercial set-net operations are conducted, the tidelands on which subsistence fisheries are conducted, and the lands under the Kenai River from its mouth to approximately river-mile 6 on which sport fisheries are conducted.

Our Community has significant "skin in the game". We are impacted by, and receive benefits from, each of the fisheries that are conducted on our properties and within our corporate boundaries.

The City Council, administration, and the citizens of Kenai are appreciative of the difficult decisions which are considered each year by the Board of Fish. We are also appreciative and grateful for the dedication and expertise of the many professional and technical managers and employees within the Alaska Department of Fish & Game.

In closing, the City of Kenai respectfully requests that your decisions be guided by sound fisheries management practices to enhance opportunities for all Cook Inlet and Kenai River salmon harvesters.

Thank you.





Susitna Valley Advisory Committee 2-18-11 minutes ( )

RC 65

Present: George Faerber  
Pat Walsh  
Steve Runyan  
Todd Kingery  
Bruce Knowles  
Gary Foster  
Gus Gustafson

Absent: (excused) Terrence Shanigan  
Ted Schackle

Meeting convened 7:10 pm.

Elections canceled: no public in attendance  
Bruce acting secretary

Voted 7-0-0 for Bruce Knowles, Todd Kingery and Steve Runyan to represent the AC in Anchorage for comment and committee seats. Steve Runyan is designated to speak for the committee in testimony.

Gus moves, Pat 2nds all actions for the meeting.

Approve = A  
Oppose = O  
No Action = N/A

Voted 7-0-0 A to accept the findings of the fishery subcommittee. Bruce will type those out and add to minutes.

7:50 Bruce leaves to type up fishery notes. Short break.

7:54 reconvene  
Steve Runyan takes over note taking

Hunting subcommittee of Gus, George, Pat and Steve went through proposals 39-70 on 2-11. Committee votes 6-0-0 A to adopt their votes.

Proposal 134 Amend to allow no more than 5% of permits go to non resident hunters. 6-0-0 A as amended.

Proposal 48: 6-0 A

Proposal 50: 6-0 A As per 48 vote, exclude community harvest provisions. Also amended to limit number of caribou taken by Tier 1 permit during the early hunt to ensure that draw permit recipients will have a chance to hunt.

Prop 71: 6-0 A

Prop 72: 0-5-1 O Minority opinion- (Steve Runyan) I can see the validity of having an area around a high use public area that is closed to trapping. Other discussion: Once one area gets closed, the domino effect occurs: next guy down the road wants his special place closed, etc etc, until no one can trap anymore.

Prop 73: Fish and Game proposes do not adopt. Little human/ bear conflict in the unit, lack of biological data on the bears, moose calf numbers good and moose objectives good. Steve- "If the bear population supports the added harvest, why wouldn't we approve?" 6-0 A

81076

Prop 74: N/A 6-0 See Prop 107

Prop 107: Pass 6-0 as Amended: "A registered guide may maintain up to 10 bait stations and may maintain stations for his assistants, his assistants may maintain stations for the registered guide. A licensed guide must accompany a client to the bait station and remain in contact (radio or otherwise) at all times."

Prop 75: 0-6 O

Prop 76: 6-0 A

Prop 77: 5-0-1 A Fish and Game approves, agrees that there are high numbers of brown bear in 16. Steve- this is a reversal of department opinion of 2 years ago. Tim of ADF&G agrees.

Prop 103: 6-0-0

Next meeting scheduled for Trapper Creek community center March 16, 7pm. Agenda to include BOF and BOG Region IV notes, final comments for Region II meeting and designees for the meeting. Delegates to Region IV meeting and any remaining comments for that meeting to be selected via e-mail and telephone.

9:50 pm: Meeting adjourned

#### Fisheries subcommittee actions:

21. If there are enough coho salmon to support an expanded commercial fishery at a time when coho are one of the most prevalent species available, then the group believes there are enough silver salmon to maintain the present sport limit. Therefore, this proposal that would reduce a sport coho limit was unanimously opposed. 0-7-0.

102. Would increase mesh size for king salmon subsistence fishery to 8 /12 inches. An increase in mesh size would harvest a higher percentage of large females. Kings are already experiencing escapement problems throughout the Northern District drainages, and there is a very generous subsistence fishery with 3 openings per week. The group like the idea of limiting net mesh depth to 30. Proposal Failed Unanimously. 0-9-0.

103. There are already several provisions that limit the harvest of this small subsistence fishery. Proposal Unanimously opposed. 0-7-0.

Proposal 121 would prohibit commercial fishing within 5 miles of the mouths of Theodore, Chuitna, and Lewis Rivers. There are one mile closures around most stream mouths in the Central District, but hardly any stream mouth restrictions in the Northern District. With all three of these streams being considered for stock of concern status for king salmon, and with the king salmon sport fishery already greatly restricted on these streams it only seems wise that some type of stream mouth / tidal gut restriction should be established on these streams at least during the May / June portion of the commercial fishery. Unanimously support. 9-0-0.

122. This area was already voted to close to commercial fishing by the Board of Fisheries, but never actively put into regulation. It should be noted that although this area has remained opened reported commercial harvest in this area have been nearly nonexistent -- so a conservation corridor on the West side of Kalgin Island would correct an error in regulation -- but do little to pass meaningful numbers of salmon on to the Northern District drainages. Group Unanimously chose to support a Conservation Corridor to the East of Kalgin Island over this one. Motion

p 2 of 6

Failed. 0-9-0.

123 and 124. These seem to be the same proposal, and would create a Conservation Corridor to pass salmon through the Central District on a weekly basis during July and August. Under present regulations, when the commercial drift net fishery occurs on a twice weekly basis throughout the Central District of Upper Cook Inlet, Northern bound salmon stocks fail to make escapement goals on a regular basis, so the group Unanimously Supported these proposals. 9-0-0.

125. This proposal would dramatically increase the harvest of Northern Bound and Central District salmon stocks, and would eliminate all center of the inlet Corridor management that provides opportunity to reach goals in the Northern end of Upper Cook Inlet. Proposal Failed Unanimously. 0-8-0.

126. As the Board directed ADF&G to do at the 2008 Upper Cook Inlet Board of Fisheries meeting -- we would like the Board to once again -- prioritize that meeting escapement goals throughout all Upper Cook Inlet systems occurs before harvesting to avoid over escapement in individual systems -- and in particular in reference to point iv in this proposal, when ADF&G may be issuing emergency orders to harvest runs of sockeye salmon to the Kenai River in excess of 4 million. See Northern District Salmon Management Plan. Unanimously supported with the emphasis on meeting escapements before expanding intercept harvests. 9-0-0.

127. This would close commercial salmon fishing in the Western Subdistrict after August 9. The group supports minimizing commercial harvests of Upper Cook Inlet coho salmon -- especially at a time when most other stocks are present in low abundances. Unanimously Supported. 8-0-0.

128. Opposed -- this proposal would eliminate the present spawning escapement goals for most salmon stocks in Upper Cook Inlet. Proposal Failed Unanimously. 0-8-0.

129, 130, 131, 132 The group viewed these proposals as opportunities to expand commercial fisheries that would harvest all salmon stocks. Expanding commercial fisheries during this time of the season would allow limited commercial economic gain at the expense of the sport coho fishery. Many sport silver salmon fisheries have been restricted since 2000 based on silver salmon spawning escapement concerns -- while commercial opportunities were already previously expanded. Proposals Failed Unanimously. 0-8-0.

133. The group would like to provide real opportunity targeting king and silver salmon for consumptive / sport users. This would provide increased sport opportunity at a time when adverse impacts to the commercial fishery would be minimized by low abundances of other commercial important salmon stocks. This would help minimize the commercial harvest of both Upper Cook Inlet king and coho salmon. Proposal Unanimously Supported. 8-0-0.

134 and 135. Group has a problem with these proposal providing little information for the public to review before hand. According to independent scientific review the Yentna Bendix did at times provide a good index for sockeye salmon spawning escapements, while at other times because of high pink salmon numbers interfering with sockeye counts the index was not as good. Replacing the lower river sonar counts with upper river weir counts reduces the ability to manage the commercial fisheries inseason based on abundance. The weir counting method also has problems in that a significant number of Yentna sockeye salmon spawn in other areas besides Chelatna and Judd lakes -- so abundance of these other spawners would no longer be measured as

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part of the sockeye escapement goal. In addition going to a multiple weir system creates a problem of what constitutes missing the Yentna River sockeye salmon escapement goal. Proposals Failed Unanimously. 0-7-0.

136 and 137. We are concerned that ADF&G's new weir goals for Yentna sockeye eliminate counting of a portion of the Yentna River sockeye salmon run, and request the Board create a goal that maintains 2008 escapement goal levels and allocations. At the same time we request that all escapement numbers used as goals be converted to reflect the current measurement method. Proposals Unanimously Supported. 7-0-0.

138. This proposal would increase harvest on Northern sockeye salmon stocks that have been having trouble making the Board established 2008 escapement goal and the out of cycle ADF&G changed goals. Proposal Failed Unanimously. 0-7-0.

139. This fishery when used in the past created conservation problems throughout the numerous Knik Arm drainages upstream of Fish Creek. That is why it was removed from regulation. Proposal Failed Unanimously. 0-7-0.

140. As applies to the Central District commercial drift net fishery the group supports this proposal to minimize commercial coho harvests. We disagree with the department's position: this proposal aims only at fisheries in the Central District, and those approved either by EO or in regulation to harvest sockeye salmon. Belief that a river's sockeye returns can sustain it should not be justification to have an Emergency Opener which catches a large number, statistically, of coho! We believe the board's intent is clear in the Kenai Salmon management plans that include "minimizing catches of coho and Susitna/Yentna sockeye," and that this intent is being ignored, as illustrated in the Emergency Orders referenced in this proposal. We also believe that contrary to the department's statement, it is very easy to tell when the sockeye return is ending and the coho return building. It happens near the same date every year, and a catch rate of more than 1:4 coho to sockeye is the key indicator that this has happened. Proposal Supported Unanimously. 7-0-0.

141. We believe in the concept of managing Upper Cook Inlet commercial fisheries to obtain the Fish Creek sockeye salmon escapement goal just like other established Upper Cook Inlet escapement goals. ADF&G makes forecasts for this stock on a yearly basis, a weir is in place to measure the escapement, and we believe achieving the goal should be a priority over maximizing harvests in mixed stock areas downstream. Proposal Supported Unanimously. 7-0-0.

142. Would reschedule the Northern District commercial king salmon fishery to start on or after June 4 and reduce fishery back to 3 periods. Sport fishing restrictions have been made throughout Northern king salmon systems, some type of corresponding commercial reductions should be made in order to meet king salmon escapement goals. Proposal Supported Unanimously. 7-0-0.

143. Seeks to reestablish the sport priority for Upper Cook Inlet king salmon and provide an orderly process for user group restrictions in times of shortage. Proposal Supported Unanimously. 7-0-0.

144. The group liked the idea of establishing a Susitna drainage king salmon management plan to more rapidly address the decline in king salmon numbers. Members of the group wanted to have both step down triggers and riggers to reopen or reduce restrictions when numbers of king

salmon once again return. Unanimously Supported in concept. 7-0-0.

145. Stalling Northern District commercial king salmon fishery restrictions until some undetermined time, only allows the stocks which are already at documented stock of concern levels to further decline. It would be nice to have additional information, however, these are stock of concern level problems-- at this time. Proposal Failed Unanimously. 0-7-0.

149, 150, 151, 152, 153, 154, 155, 156 - Loosening these restrictions would increase commercial harvests of stocks of concern sockeye and king salmon headed for Northern District streams. Expanded commercial opportunity would reduce sport fishing harvest allocation as well. These are primarily allocative proposals to reallocate currently allocated stocks which already have trouble making escapement goals. Proposals Failed Unanimously. 0-7-0.

157. We prefer that Emergency actions going outside of management plans be justified. Proposal Failed Unanimously. 0-7-0.

158. Poorly written and overly restrictive. Would not allow maximum benefit from the resource while overly restricting all user groups. No Action.

159. One person mentioned a provision for subsistence priority should be included. Unanimously Supported proposal. 7-0-0.

160, 161, and 162. Opposed due to negative impacts on Northern bound salmon stocks which already have trouble making escapement goals on a consistent basis. Proposals opposed Unanimously. 0-7-0.

163 and 164. Support for the positive impacts of passing more Northern Bound salmon stocks North, so that escapement goals may be obtained on a more regular basis. Proposals Unanimously Supported. 7-0-0.

165. No Action

172 already opposed by Mat Valley AC.

174 - 194. The group wants to maintain personal use dip netting opportunities, and chose to spend remaining time on other proposals.

195. Amended to start the Fish Creek personal use fishery when 50,000 sockeye salmon could be projected past the ADF&G weir. Amendment passed with no objection. Unanimously supported as amended. 7-0-0.

197, 198, 199. Opposed creation of these personal use fisheries for lack of sufficient salmon to provide fisheries, lack of salmon escapement goals, and lack of post fishery escapement counting. According to local residents chum salmon numbers have collapsed over time throughout many parts of the Susitna River drainage as well. Proposals Opposed Unanimously. 0-7-0.

22, 23, 200, 201, 202, 203, 204, 205. The commercial fishery already expanded out of the Coho Conservation plan, while the primary users have seen sport daily bag limit restrictions from that plan remain in place. If there is enough fish to provide extra harvest opportunity for non priority

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users, then there should be enough to provide for the priority sport users to return to their previous limit as well. Proposals Unanimously Supported. 7-0-0.

223. Previously supported by Matanuska Valley AC. Proposal would create a Northern Pike Management Plan. -- Unanimously Supported by this group. 7-0-0.

289. Oppose 0-5 Jugging is a poor method of pike harvest, great for catching burbot.

284, 286, 287, 288. Support 5-0 We support all efforts to reduce pike numbers in watersheds of the Mat-Su Valley where they have been introduced illegally and are wreaking havoc on native species.

285 N/A Above proposals accomplish the same, without the wanton waste issues.

As a committee, we oppose any expansions to the current commercial fisheries in the central district of Cook Inlet, even if there is an apparent over escapement over OEG goals, as interception of Northern bound salmon is unacceptably high already. We support the creation of a corridor to pass fish through Central District commercial fisheries. In no way should managing strong stocks on the Kenai and Kasilof overcome the need to pass salmon to the Northern District. We urge the Board to move the Stock of Concern status on Su/Yentna sockeye to management concern from yield concern. As a part of this change, we would like to see the department re-establish an in season assessment tool to replace the Bendix. The current method of enumerating goals that was adopted by the department in 2009, using weirs in 3 lakes, does not account for tributary and slough spawning, which mark/recapture studies show to be 35-40% of all sockeye in the Yentna. It does not give current in season data to the department that would allow them to make in season changes to intercept fisheries. We support the need to declare stock of concern status for many Susitna Chinook stocks, and are supportive of measures to reduce harvest in all fisheries which affect these stocks. We support the actions of the Department to reduce pike numbers in the Susitna basin. We look forward to working in committee to achieve the goal of increasing salmon returns to and productivity in the Susitna drainage. Our members represent the Parks Highway communities from Big Lake north to Trapper Creek, as far north as the Southern boundary of the Cantwell AC. We see the effects poor and sporadic returns of Chinook, Coho, Sockeye, and Chum in recent years have on the economy, the ecology, and the livelihoods of Alaskan residents in this area. Many Alaskan residents depend on their sport catch of Parks Highway stream, Susitna drainage salmon to meet their personal use needs. Many of us on this committee have lived through the good years as well as the recent years, and are sick at heart to see the decline of the once world class fisheries that exist here.

# Economic Importance of Sportfishing in the Matanuska-Susitna Borough

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by  
Steve Colt and Tobias Schwoerer  
Aug 31, 2009

## Summary

We estimated the economic importance of sport fishing in the Matanuska-Susitna (Mat-Su) Borough. We based our estimates on year 2007 data. These data come from a recent major study conducted by the Alaska Department of Fish and Game (ADF&G).<sup>1</sup> We allocated a portion of the economic effects for the Southcentral region to the Mat-Su Borough based on relative numbers of Southcentral angler days that occurred within the Borough boundary. Our estimates include a range of results because it is not possible to say with certainty how much of the total reported spending on things like boats, cabins, or food is due exclusively to sport fishing. Also, angler spending patterns in the Borough may be different from overall Southcentral patterns.

Overall, our estimates show that:

- In 2007, resident and nonresident anglers fished almost 300,000 days in the Matanuska-Susitna (Mat-Su) Borough.
- Anglers spent anywhere between \$63 million and \$163 million in the Borough on goods and services primarily used for sport fishing. Alaska residents spent an average of between \$126 and \$517 per angler day, while nonresidents spent an average of between \$344 and \$602.
- After accounting for multiplier effects, this spending generated between 900 and 1,900 jobs and between \$31 million and \$64 million of personal income for people who work in the Borough.
- Mat-Su sport fishing activity also generated between \$6 million and \$15 million in state and local taxes.

**Table 1**

### **Economic importance of sport fishing in the Mat-Su Borough**

(estimates based on Southcentral modeling results allocated using angler days)

	<b>Low</b>	<b>Medium</b>	<b>High</b>
Mat-Su angler days	295,981	295,981	295,981
as % of Southcentral	16.5%	16.5%	16.5%
Direct spending (\$)	62,766,103	118,185,916	162,841,500
Average spending \$ per angler day	212	399	550
Economic contribution			
Employment (average annual)	904	1,180	1,900
Income (\$)	31,406,254	40,118,532	63,660,732
Local & state taxes (\$)	6,085,357	7,721,572	14,957,085

<sup>1</sup> Southwick Associates and Alaska Department of Fish and Game, 2008. Economic Impacts and Contributions of Sportfishing in Alaska, 2007.

Available at: <http://www.sf.adfg.state.ak.us/Statewide/economics/>

## Introduction

We have estimated the economic benefits of sport fishing activity occurring within the Matanuska-Susitna (Mat-Su) Borough, using data from year 2007. Our estimates are based on the recent study entitled, *Economic Impacts and Contributions of Sportfishing in Alaska, 2007*.<sup>2</sup> It contains estimates of angler spending patterns within three regions: Southcentral, Interior, and Southeast. We also used year 2007 data from the ADFG annual Statewide Harvest Survey (SWHS).<sup>3</sup> These data allow us to allocate economic benefits to the Mat-Su Borough.

## Methods

### Step 1. Determine number of angler days spent fishing in Mat-Su Borough

ADF&G provided us with a data extract from their raw survey data on fishing effort in year 2007. The extract included all fishing sub-areas within the Mat-Su Borough. The estimated total number of angler days is 295,981.<sup>4</sup> Since there is no separate data on Alaska resident vs. nonresident split, we have assumed that the nonresident fraction is the same as it is for Southcentral – 39.6% nonresident. Thus, we estimate that Mat-Su angler days account for 16.5% of total Southcentral angler days.

**Table 2. Angler days spent fishing in Mat-Su Borough**

	Alaska Resident	Res. %	Nonresident	Nonres. %	Total
Mat-Su Borough angler days	178,886	60.4%	117,095	39.6%	295,981
% of Southcentral	16.5%		16.5%		16.5%

### Step 2. Determine appropriate values for spending per angler day

The ADF&G economic survey measured direct angler spending by the location of the expenditure, not by the location of the fishing that generated that expenditure. This approach makes good sense, but it means that some caution must be used when

<sup>2</sup> Southwick Associates and Alaska Department of Fish and Game, 2008. *Economic Impacts and Contributions of Sportfishing in Alaska, 2007*. Available at: <http://www.sf.adfg.state.ak.us/Statewide/economics/>

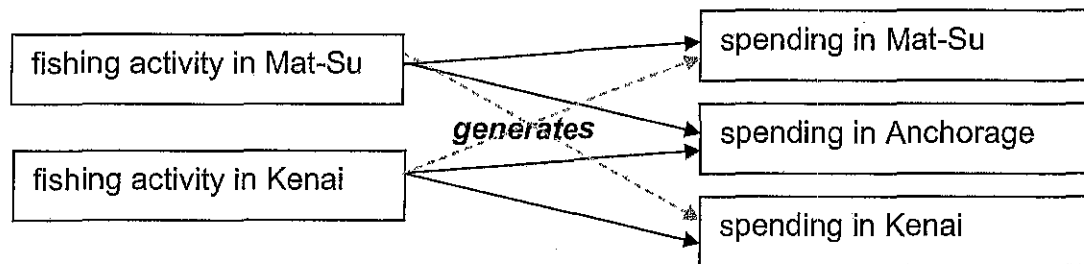
<sup>3</sup> These year 2007 SWHS data have not been formally published as of August 2009. Statewide and regional numbers are reported in the economic impacts study and numbers for areas within the Mat-Su Borough were provided by ADF&G.

<sup>4</sup> About 8% of these angler days were generated at locations with less than 12 respondents to the ADF&G angler survey. While ADF&G recommends not using these data points because of the sampling error involved, we have included them because we are aggregating over all of the 118 locations that have this problem.



interpreting the spending data. Figure 1 shows how fishing in one area can cause angler spending in another area. For example, a German tourist who fishes on the Little Susitna River might spend significant amounts of money in Anchorage. Clearly, Anchorage is the major recipient of this type of spending that relates to fishing outside of Anchorage. The lighter, dotted lines in the figure reflect the idea that fishing in Mat-Su causes very little spending in Kenai, and vice versa.

**Figure 1. Relationship between location of fishing and location of spending**



Because the data on angler days and the data on spending within each region were collected in two separate surveys, we must use caution when speaking of “spending per angler day.” Specifically, we need to remember that a simple calculation of spending in a region per angler day of fishing in that same region is a mixture of two different quantities that were measured in two separate surveys.

Each of the five regions that ADF&G uses in its economic significance reporting are large enough that this problem is unimportant as a practical matter. Clearly Southcentral and Southeast are distinct economic regions. Even the Cook Inlet subregion includes Anchorage plus the major fishing locations close to it.

With this caveat in mind, we calculated numbers for “spending per angler day” in various regions based on the total spending numbers reported by the Southwick/ADF&G study. Table 3 shows these ratios. We looked carefully at these regional ratios to determine whether an allocation of total Southcentral *spending* to Mat-Su and non-Mat-Su subregions could be done based on the relative numbers of angler days. We wanted to consider whether some adjustment was needed to capture the possibility that money associated with Mat-Su fishing is spent outside the Borough. Using the ratios for the Cook Inlet subregion would be inappropriate, because Anchorage weighs too heavily in those numbers. We concluded that the best approach was to use the Southcentral region numbers for average spending per angler day as the basis for determining economic activity within the Mat-Su Borough.<sup>5</sup>

<sup>5</sup> We also looked at regional patterns of spending on fuel, guides, groceries, and lodging to verify that no adjustment was needed based on this spending.

**Table 3. High case regional spending per in-region angler day, by region using total spending amounts reported by Southwick/ADFG (dollars spent in the region per angler day of fishing in the region)**

<b>Statewide</b>	Resident	Nonresident	Total
Licenses & stamps	5	15	9
Trip	151	321	223
Package	-	127	54
Equipment	297	38	187
Real Estate	50	102	72
<b>Total</b>	<b>502</b>	<b>604</b>	<b>546</b>

<b>Southcentral</b>	Resident	Nonresident	Total
Licenses & stamps			
Trip	167	332	233
Package	-	127	50
Equipment	302	41	199
Real Estate	47	102	69
<b>Total</b>	<b>517</b>	<b>602</b>	<b>550</b>

<b>Cook Inlet</b>	Resident	Nonresident	Total
Licenses & stamps			
Trip	162	327	226
Package	-	49	19
Equipment	383	46	252
Real Estate	56	149	92
<b>Total</b>	<b>602</b>	<b>571</b>	<b>590</b>

<b>Other Southcentral</b>	Resident	Nonresident	Total
Licenses & stamps			
Trip	180	343	248
Package	-	290	120
Equipment	112	31	79
Real Estate	25	3	15
<b>Total</b>	<b>317</b>	<b>666</b>	<b>462</b>

<b>Interior</b>	Resident	Nonresident	Total
Licenses & stamps			
Trip	100	443	182
Package	-	155	37
Equipment	317	31	249
Real Estate	18	61	28
<b>Total</b>	<b>435</b>	<b>691</b>	<b>496</b>

### **Step 3. Determine total Mat-Su spending, jobs, and income based on Southcentral spending per angler day**

We multiplied the average spending per angler day in Southcentral by the number of Mat-Su angler days to determine total spending in Mat-Su from sportfishing activity that occurs in Mat-Su. We then applied the economic multiplier values for the Southcentral region from the Southwick/ADF&G analysis to these spending numbers. For the High case, our final results for direct spending, jobs, and income occurring in Mat-Su are simply equal to 16.5% of the ADF&G values for all of Southcentral.<sup>6</sup> The 16.5% number is the Mat-Su share of Southcentral angler days, as determined above in step 1. The 16.5% share is assumed to be the same for resident and non-resident angler days because we have no direct data to indicate otherwise.

### **Step 4. Develop Low, Medium, and High cases to better reflect the uncertainty about spending patterns**

As a final step we considered the fact that much of the spending on equipment, real estate, and even on trips may not be attributable solely to sport fishing. ADF&G attempted to address this issue by asking survey respondents to say what percentage of their equipment and real estate spending was attributable to sport fishing. They used those percentages when determining the total spending and average spending per angler day. However, we believe these numbers represent a high case estimate of spending that relates directly to fishing. There are three reasons for this belief. First, as we have already mentioned, some of the spending associated with Mat-Su fishing may occur in Anchorage. Second, some of the spending on a trip whose "primary purpose" is fishing might well have occurred anyway, albeit in a different pattern. Third, the ADF&G numbers reflect the total, or overall, economic effects of all existing sportfishing. However, if one is interested in how a *change* in fishing opportunities might translate into a *change* in spending, the resulting numbers are lower. That's because many expenditures are fixed costs. People who fish 10% more days are not going to buy 10% more hip waders or 10% more cabins.

We developed Low and Medium cases by assuming lower expenditures in some categories – especially equipment and real estate. The Low case uses 75% of the reported numbers for trip-related and package categories and none of the equipment and real estate category spending. For the medium case we include 100% of the trip-related and package expenditures, 50% of the reported equipment spending, and 25% of the reported real estate spending. The High case includes 100% of all spending reported to ADF&G for all categories – trip-related, package, equipment, and real estate. The following table summarizes these assumptions.

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<sup>6</sup> ADF&G did not develop Low, Medium and High cases. They only reported one set of estimates. These correspond to our High case estimates.

**Table 4. Difference in spending pattern assumptions  
between low, medium, and High cases**

(Fraction of total reported spending that is included in each case, by category)

	Low	Medium	High
Licenses & stamps			
Tri-related	75%	100%	100%
Package	75%	100%	100%
Equipment	0%	50%	100%
Real Estate	0%	25%	100%

## Results

Overall, our estimates show that:

- In 2007, resident and nonresident anglers fished almost 300,000 days in the Matanuska-Susitna (Mat-Su) Borough.
- Anglers spent anywhere between \$63 million and \$163 million in the Borough on goods and services primarily used for sport fishing. Alaska residents spent an average of between \$126 and \$517 per angler day, while nonresidents spent an average of between \$344 and \$602.
- After accounting for multiplier effects, this spending generated between 900 and 1,900 jobs and between \$31 million and \$64 million of personal income for people who work in the Borough.
- Mat-Su sport fishing activity also generated between \$6 million and \$15 million in state and local taxes.

**Table 5  
Economic importance of sport fishing in the Mat-Su Borough**

(estimates based on Southcentral modeling results allocated using angler days)

	Low	Medium	High
Mat-Su angler days	295,981	295,981	295,981
as % of Southcentral	16.5%	16.5%	16.5%
Direct spending (\$)	62,766,103	118,185,916	162,841,500
Average spending \$ per angler day	212	399	550
Economic contribution			
Employment (average annual)	904	1,180	1,900
Income (\$)	31,406,254	40,118,532	63,660,732
Local & state taxes (\$)	6,085,357	7,721,572	14,957,085

**High Case.** We first present results for the High case, because they correspond most directly to the previously published spending numbers.

Table 6 shows estimated direct spending from Mat-Su sportfishing. More than \$163 million was spent, of which more than \$70 million came from people who came from outside Alaska. Residents spent heavily on equipment, while nonresidents spent heavily on trips and packages.

**Table 6. Direct spending from Mat-Su sportfishing – High case**

	Alaska		Total
	Resident	Nonresident	
Licenses & stamps	-	-	-
Trip	29,961,901	38,879,365	68,841,266
Package	-	14,846,871	14,846,871
Equipment	54,058,396	4,779,358	58,837,754
Real Estate	8,383,744	11,931,864	20,315,609
<b>Total</b>	<b>92,404,041</b>	<b>70,437,459</b>	<b>162,841,500</b>
Average spending			
\$ per angler day	517	602	550

Table 7 shows our High case estimates of the economic importance of Mat-Su sport fishing. Under the High case assumptions, the direct spending by anglers immediately generates 1,300 jobs and almost \$40 million of income. After multiplier effects are included, Mat-Su sport fishing generates 1,900 jobs and \$63.7 million of personal income for people working in the Borough.

**Table 7. Economic importance of Mat-Su sportfishing – High case**

HIGH case	Alaska		Total
	Resident	Nonresident	
Mat-Su angler days	178,886	117,095	295,981
as % of Southcentral	16.5%	16.5%	
Direct effects			
Spending			
Income	17,957,673	21,536,960	39,494,633
Employment	588	713	1,301
Multiplier effects			
Income	10,841,421	13,324,678	24,166,099
Employment	264	335	599
Total effects			
Income	28,799,095	34,861,638	63,660,732
Employment	852	1,048	1,900
Tax revenues			
Local and state	7,513,582	7,443,503	14,957,085
Federal	6,745,651	7,990,043	14,735,694

Spending on fishing also generates significant amounts of tax revenues. As the original ADFG study authors stress, these numbers must be interpreted with special caution, since they reflect average, overall ratios of economic activity to tax collections.<sup>7</sup> However, it is clear that much of the spending, especially by nonresidents, does contribute incremental revenues through taxes on lodging, meals, rental cars, and sales.

<sup>7</sup> Southwick/ADFG study, p. 56.

**Low and Medium Cases.** The following tables show the results for spending, income, and jobs for the Low and Medium cases.

**Table 8. Direct spending from Mat-Su sportfishing – Low and Medium cases**

LOW case	Alaska		Total
	Resident	Nonresident	
Licenses & stamps	-	-	-
Trip	22,471,426	29,159,524	51,630,950
Package	-	11,135,153	11,135,153
Equipment	-	-	-
Real Estate	-	-	-
<b>Total</b>	<b>22,471,426</b>	<b>40,294,677</b>	<b>62,766,103</b>

MEDIUM case	Alaska		Total
	Resident	Nonresident	
Licenses & stamps	-	-	-
Trip	29,961,901	38,879,365	68,841,266
Package	-	14,846,871	14,846,871
Equipment	27,029,198	2,389,679	29,418,877
Real Estate	2,095,936	2,982,966	5,078,902
<b>Total</b>	<b>59,087,035</b>	<b>59,098,881</b>	<b>118,185,916</b>

**Table 9. Economic importance of Mat-Su sportfishing – Low case**

LOW case	Alaska		Total
	Resident	Nonresident	
Mat-Su angler days	178,886	117,095	295,981
as % of Southcentral	16.5%	16.5%	
Direct spending (\$)	22,471,426	40,294,677	62,766,103
Average spending \$ per angler day	126	344	212
Economic contribution			
Employment (average annual)	351	553	904
Income (\$)	11,192,675	20,213,579	31,406,254
Local & state taxes (\$)	1,827,203	4,258,154	6,085,357

**Table 10. Economic importance of Mat-Su sportfishing – Medium case**

MEDIUM case	Alaska		Total
	Resident	Nonresident	
Mat-Su angler days	178,886	117,095	295,981
as % of Southcentral	16.5%	16.5%	
Direct spending (\$)	59,087,035	59,098,881	118,185,916
Average spending \$ per angler day	330	505	399
Economic contribution			
Employment (average annual)	468	712	1,180
Income (\$)	14,923,567	25,194,965	40,118,532
Local & state taxes (\$)	2,436,270	5,285,302	7,721,572

## References

Alaska Department of Fish and Game 2008. Economic Impacts and Contributions of Sportfishing in Alaska, 2007. Available at:  
<http://www.sf.adfg.state.ak.us/Statewide/economics/>



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## 2011 Board of Fish Members:

There are too many proposals to comment on however, here are the most important guide lines:

All the proposals are focused more or less generally due to greed on the Kenai King Salmon Runs. You must first understand that the F & G Department has identified and managed this species as an early run and late run salmon using May and June for the early run and July and August for the late run in order to halt the commercial harvest on King Salmon in May and June. Since the Commercial harvest of all early run salmon has been halted, it has been mismanaged by everyone (except Commercial Fishermen because we don't participate). The Commercial Season used to run from May clear through September. Commercial Fishermen and Commercial Fisherwomen have already given up many, many days and hours of fishing time allocated to new users. Today, the early run king is almost depleted. This king run should be returning upwards of 100,000 fish to the Kenai River.

Don't allow proposals that limit mesh depth or "windows" to enter the discussion as it is this early King Salmon run that needs enhancing. Many proposals try to put commercial fishing as the culprit to diminishing returns, but you must remember, Commercial Fishermen only fish the second run of kings and this second run has maintained a steady return.

You have the tools to make this fishery whole (it's called enhancement) which is happening all over Alaska, but not in Cook Inlet. Enhancement would be very beneficial to Cook Inlet. The FRED Division had an enhancement program in Cook Inlet that was very successful for different species of salmon, including King Salmon, which benefited all user groups and wherever it was done, people were happy with the results. This program should be reinstated and continued.

You also have the tool of genetic sampling to identify species of salmon, to identify which streams they were returning to. Genetic sampling will show that King Salmon caught in a certain location are destined for a particular river. No more allocations and changes should be made until the salmon are identified by destination. Attached is the best information that is available in this regard (study made by Paul Rousch and Ken Tarbox). Until this genetic work is completed, it is ridiculous and criminal to make the commercial nets more shallow. Use the tools you have available and stop this foolish allocation which denies commercial fishermen and women a legitimate chance to earn a living, sacrificing their livelihoods for someone else's play time.

There are proposals to increase Coho bag limits to possession. Remember that we also had commercially fished this species for fifty years and have been unable to participate in this fishery since 1978 because the Board of Fish has not allowed a commercial season. If this species is in excellent shape, I have to

argue that the Board of Fish allow Commercial Fisheries access at the rate previously used before closing the silver fishery. Please remember that Maximum Sustained Yield management is the goal in Alaska and all the allocation criteria goes against good management.

The most unruly item the Board of Fish has to deal with this year is the Personal Use Fishery. There is no accounting for catches and it is so badly abused so as to be criminal. My recommendations are:

- Have a Personal Use Permit which stated the amount of fish allowed;
- Marking of fish

Most Important Part—the permittee must go through a check point to fish and be checked out after fishing at a checkpoint showing the amount of fish landed.

This must be computer monitored leaving no room for error.

This no accounting of take in the Personal Use Fishery has been a criminal activity. This action will stop the abuse and make it at least acceptable to most. This has to be addressed.

Furthermore: When it comes to Personal Use Fishing:

You can't have the whole State of Alaska's population coming to the Kenai Peninsula to get their winter's supply of fish. Cook Inlet has the smallest run of salmon in the State and between Dipnetting and the Personal Use Fishery, it is not right to get rid of Commercial Fishing in Cook Inlet to satisfy the Sports and these new pressures on the salmon runs when Commercial Fishing is our livelihood. It is what we do for a living. Importantly, there are over 250 permit holders in Cook Inlet that are women besides a number of children in the families that are permit holders. My granddaughter is the 5<sup>th</sup> generation on our fish site which was established before statehood. Recreation should not be more important than a person's livelihood. Commercial Fishermen and women were here long before guides, personal use, dipnetters, etc. We are the backbone of the peninsula's financial stability, having been here before there were any roads.

I would propose a road be built to Bristol Bay which has a run of salmon most years about 7 to 10 times the amount of salmon returning as Cook Inlet has. The Cook Inlet Salmon Fishery cannot support the amount of people that are vying for more shares each year.

My name is Doug Blossom. I have been a Commercial Fisherman for 60 plus years, advisory board member for 40 years, President of the Cook Inlet Fishermen's Fund, member of the South Central RAC of the Federal Subsistence Board.

# Fishermen's fight likely groundless

By RONNIE CHAPPELL  
Daily News reporter

KENAI — The Cook Inlet commercial salmon season will reach full swing today. If it progresses as expected, there will be lots of fish — and lots of controversy.

The state expects a catch of more than 3.5 million red salmon. That will mean lots of extra fishing time for commercial gillnetters and lots of grumbling by sport fishermen who believe that uninterrupted commercial fishing is destroying a small but highly prized run of Kenai River king salmon.

It appears to be a controversy about nothing.

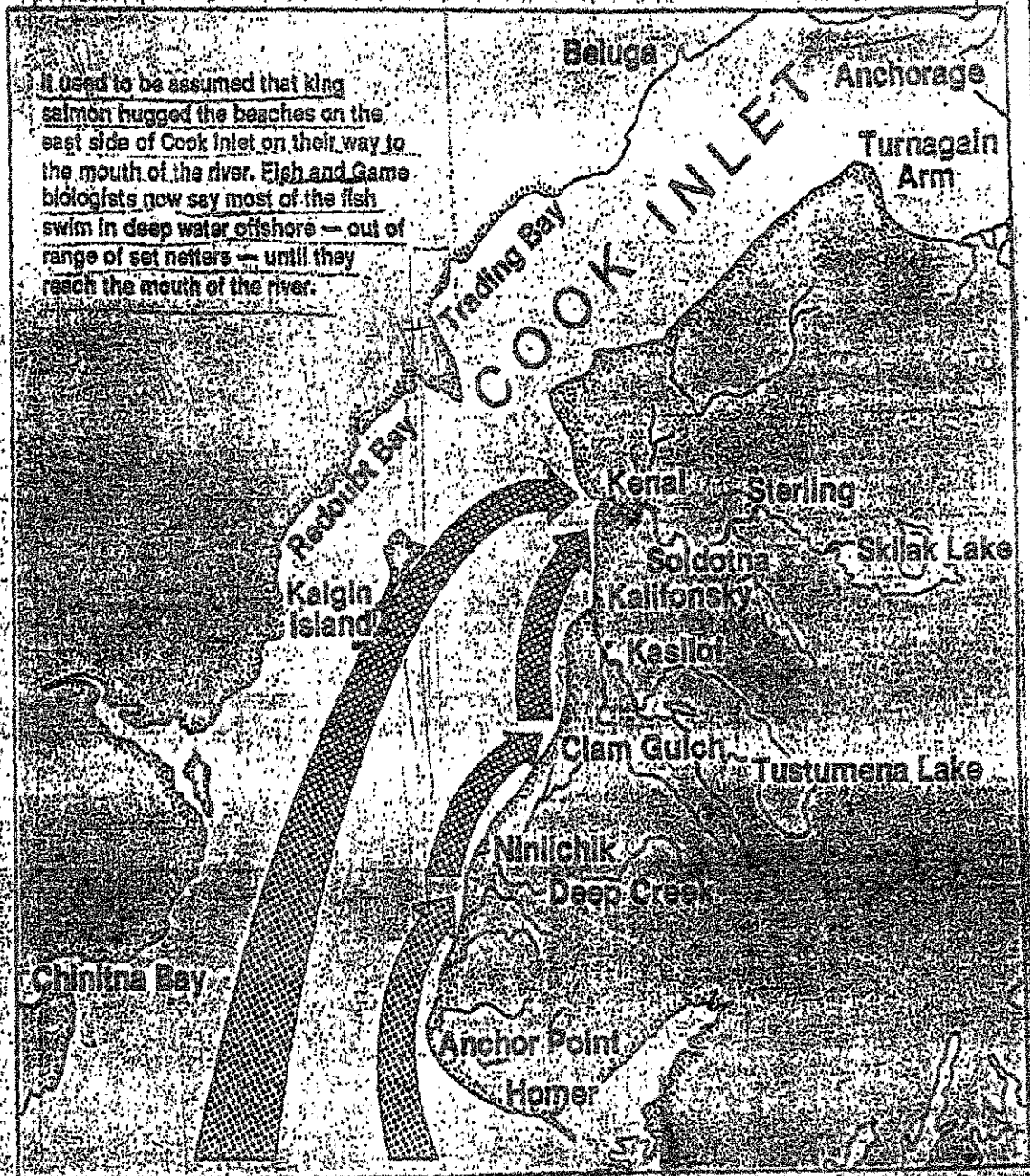
Evidence gathered by state biologists indicates that continuous fishing by Kenai Peninsula gillnetters has no significant effect on the number of giant kings swimming up the state's most popular salmon stream.

"This is certainly good news for both sport and commercial fishermen," said Paul Ruesch, the Cook Inlet management biologist for the Department of Fish and Game. "More sockeye salmon harvests by commercial fishermen and excellent king salmon spawning for Kenai River sport fishermen are two means mutually exclusive."

It is difficult for many people to accept at first, but a careful review of all available data has been fairly convincing.

The effect of continuous commercial fishing on late-run Kenai kings lies at the heart of a bitter allocation fight that has raged for years between sport and commercial fishermen.

## COOK INLET SALMON ROUTES



It used to be assumed that king salmon hugged the beaches on the east side of Cook Inlet on their way to the mouth of the river. Fish and Game biologists now say most of the fish swim in deep water offshore — out of range of set netters — until they reach the mouth of the river.

# Evidence indicates continuous fishing by set netters

Continued from Page A-1

The tug-of-war reached a fever pitch in 1982 when east side set netters fished 18 straight days, and king fishing in the river was stopped six days early.

At the time, Ruesch said, biologists didn't know how the continuous commercial fishing was affecting the return of king salmon to the Kenai River.

The lack of understanding contributed to the state decision to put an early stop to sport fishing. It also prompted Ruesch and research biologist Ken Tarbox to take a hard look at the relationship between the commercial red salmon catch and the number of king salmon that enter the river.

They began by reviewing the commercial king salmon catch for 13 fishing seasons that opened on June 25, the traditional starting date for the Cook Inlet fishery.

Analysis of the catch information showed that 50 percent of the king salmon catch was on or before July 16, regardless of how many days the fishery was open.

"The catch was the same whether they fished two days a week or seven days a week," Ruesch said.

In 1983, Ruesch and Tarbox put their theory to the test. Cook Inlet was having the biggest sockeye run in history and a series of back-to-back openings for commercial fishermen had begun on east side beaches.

The sport fishing community, still smarting from the early closure of the river in 1982,

exploded. At a meeting in Soldotna, angry guides complained that continuous fishing on the east side beaches was choking off the run upriver. They said no kings were reaching the river.

Ruesch and Tarbox told the disbelieving crowd that extra commercial fishing periods would have little effect on the number of fish reaching the river. Then, using catch figures from the first half of the season, Tarbox wrote his prediction of the total commercial king salmon harvest on a blackboard. The number was 14,506.

Tarbox spent weeks wondering whether his prediction was correct.

At the end of the season, after 14 days of continuous fishing on the east side beaches, the commercial king catch was 14,408. Tarbox and Ruesch had underestimated the total catch by only 100 fish, off by less than 1 percent.

By then it was clear to the two biologists that extra commercial periods were not significantly increasing the king catch or reducing the number of kings that reached the river.

Their conclusion was supported by an examination of sport fishing information.

During the summer, state employees survey hundreds of anglers every day to determine what they've caught and how long they fished to catch it. The survey is called a creel census. The census is used to estimate the sport fishing catch for each hour of fishing effort.

"We hear repeatedly that the kings disappear when the nets go in the water," Ruesch

## Set netters has insignificant effect on king run

said, "But the results of the creel census don't support that claim."

Despite the numbers, anglers remain skeptical of the department's findings.

"I've watched the back-to-back openings cut off the fish coming in the river," said Bix Bonney, a founding member of the Kenai River Sportfishing Association and a member of the Alaska Board of Fisheries.

Even if the number of kings landed by anglers is unaffected, the quality of the kings changes, Bonney said. "Fishermen in the river see no more bright fish when the nets go up."

Instead, he said, the catch gets "pink, pinker and pinker." Bonney and other anglers associate the change in color — from bright silver to mottled red — with the time the fish spend in freshwater.

Because of his personal observations on the river, Bonney says the department's "scientific findings" are suspect. "They are assuming things that are not proven," he said.

Bonney's skepticism doesn't surprised set netter Chuck Robinson.

"It took a long time to prove to people that the earth is round," Robinson said.

No one was more surprised by the findings than Ruesch and Tarbox. The catch information didn't square with the conventional thinking on the migratory patterns of late-run Kenai kings.

If that were true, extra fishing time would increase the commercial king catch. But that doesn't happen, Ruesch said, because the set net fishery catches almost all the king salmon that swim close to shore.

"Kings move very slowly," he said, "so if you fish on just Mondays and Fridays, you're still going to catch almost all of the kings available. If a king survives the Monday period, he'll be caught Friday farther up the beach and still won't make the river. Extra periods only redistribute the total catch."

Still, tens of thousands of kings reach the Kenai.

Ruesch's theory is that "only a portion of the chinooks travel up the east side, and are available to the set net fishery. An even larger portion is farther offshore travelling fairly deep in the water column." The fish do not turn inland until they are near the mouth of the river.

To test the theory, Ruesch and Tarbox examined king salmon catch information for individual east side set net sites. If kings moved only along the beach, they reasoned, the biggest king catches would be south of Nintlichik.

But they found that the sites closest to the Kenai River recorded the highest king catches, and catches fell the farther south the sites were from the river mouth.

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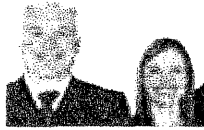
VOL. XI, NO. 182, 66 PAGES

ANCHORAGE, ALASKA, MONDAY, JULY 1, 1985

RC 68

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ALASKA'S NEWSPAPER



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## Fisheries need to share burden

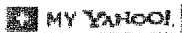
CRAIG MEDRED  
OUTDOORS  
Published: May 11th, 2009 09:41 PM  
Last Modified: May 13th, 2009 05:43 PM

Why is it so many seem to have forgotten the deal made 24 years ago when commercial fishermen were allowed to resume the killing of Susitna River king salmon?



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One would think that with king runs expected to be weak this year and angling on the Deshka River, one of the major producers in the Susitna drainage, severely restricted even before the season begins, someone would recall the long-ago words of the spokesman for the setnet fishery downstream.

Here is what Stephen Braund from the Northern Cook Inlet Setnetters Association, now the Northern District Set Netters Association of Cook Inlet, told the state Board of Fisheries in 1985:

"We'll be the first to go if there are not enough fish. We're not just trying to get our foot in the door and grow."

There are not enough fish this year. And yet, the commercial fishery is scheduled to go on much as it has since 1986.

When Braund made his appeal to the Fish Board back in '85, it was a different world. The Susitna was awash in kings. Runs once near extinction had been restored after a commercial fishery closure of more than 20 years.

Upwards of 100,000 of the biggest of the salmon were estimated to be returning to the Su each year, and anglers were harvesting only about 10 percent at a time when biologists were calculating it would probably be OK to harvest as many as 30,000 per year.

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The Deshka alone was seeing escapements of 30,000 to 40,000 fish, and downstream from there along the Su, Alexander Creek was getting another 5,000 to 10,000 per year.

It was hard to disagree with Braund's logic in arguing that commercial fishermen should be allowed back to scarf up some of the large number of fish in excess of spawning needs.

A lot has changed since then, however. The Alexander Creek run, for one thing, is almost gone. Northern pike invaded that slow-flowing stream a decade ago. The meandering, backwaterish nature of the creek makes for great pike habitat.

Where pike thrive, salmon suffer, and nowhere around the region have they suffered more than on Alexander Creek. The king salmon run there can now, at best, be described as a remnant or a relic. There being some Alexander Creek habitat better suited to salmon than pike, the run can probably sustain itself at a few hundred fish per year, but it is never going to return to its former glory.

Upstream at the Deshka, the situation is better. The waters of the Deshka, in most places, run faster than those of Alexander Creek and over rockier, weed-free ground. This is better salmon habitat than pike habitat, so there are no signs of a full-on pike takeover.

What is going on with the Deshka is much harder to determine than what is going on with Alexander Creek. The Deshka's king runs aren't gone, they're merely yo-yoing. The river saw a record escapement of nearly 58,000 kings in 2004.

Escapement is the fancy word fisheries biologist use to describe the fish that have escaped all human predation -- setnetters, gillnetters, subsistence netters and anglers -- to make it to the spawning grounds, where they only have to worry about getting eaten by bears, wolves, coyotes and eagles.

Last year, the Deshka saw an escapement of 7,553 kings, less than a seventh of what had been seen four years before. And this only after the river was closed to angling June 20 to prevent any further human take of fish bound for the spawning beds.

At the time of that closure, only 2,000 kings had made it through Deshka's fish-counting weir. That was a scary number on a river where the minimum escapement goal is set at 13,000 and the run ends in July. It is obvious now, too, that the closure came too late.

Something should have been done sooner to prevent anglers from catching thousands of kings needed on the spawning beds. Something is being done this year with the king return again expected to be small.

Bait, the most effective way to catch Deshka kings, has been banned. Anglers will need to fish with lures, and if they are lucky enough to hook a king that way, they will most often need to release it unharmed. New restrictions say they can keep fish only on Saturdays, Sundays and Mondays.



What has been the most productive king salmon fishery in the Susitna Valley thus becomes another of those so-called "weekend-only" fisheries common along the state road system.

Meanwhile, downstream, the setnet fishery that was promised to be "the first to go" if there was no surplus of kings remains largely unchanged. Starting at the end of May, the setnetters are expected to get two, 6-hour fishing periods followed by three, 12-hour fishing periods once a week. The scheduled, 48 hours in fishing time equals that of 2008 when the fishery was shut down early because of the angling closure on the Deshka. It is an increase from 36 hours in 2007. The netters are expected to catch about 4,000 kings.

Dave Rutz, Palmer area sport fisheries biologist for Fish and Game, admits he knows of no salmon spawning stream in the Susitna drainage with 4,000 surplus kings. He also says he's not supposed to talk about the setnet fishery at the mouth of the river.

Or, at least, not talk about it except to repeat the company line:

"It's the management plan. It's the management plan. It's the management plan."

The management plan, by God, calls for prosecution of the early-season commercial fishery in northern Cook Inlet, and so it will be prosecuted. The plan, Rutz said, says the commercial fishery can't be closed unless the Deshka is closed, and sport fisheries biologist are, at this point, reluctant to take that drastic step.

It might come anyway. A replay of the 2008 season would not be a major surprise. If the river is closed in late June again, the setnetters -- who were supposed to be the first to sacrifice -- might lose one of their five scheduled fishing periods.

But by then, they will have caught thousands of kings.

Larry Engel of Palmer, the retired area sport fishery biologist and a one-time member of the state Board of Fisheries, said he isn't sure how this came to be, other than that the Fish Boards tend to forget promises made in the past. New members are appointed every year, he said; the history of what has happened leaves with the old members.

A new board writes a new management plan and suddenly the promises of the past become just so many words. Why not?

Commercial interests have a long history of successfully lobbying the board. That is the polite, political term used to describe how the puppet masters of the regulatory process manipulate their puppets.

The puppets on the Fish Board, not surprisingly, have a long history of putting commercial interests over angling interests, though it's not necessarily all their fault.

Commercial interests have a financial stake in the game. It encourages them to lobby long, hard and well. Anglers, no matter how much they might love the fishing game, in large part ignore the political one. They foolishly expect the regulators to keep in mind the best interests of the masses.

The results are what you will be seeing on the Deshka this year.

The commercial fishermen, Engel said, "should at least be sharing in the conservation burden."

RC 69

Sponsored by: Assemblymember Colver  
Adopted: 02/15/11

**Matanuska-Susitna Borough  
RESOLUTION SERIAL NO. 11-026**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY APPROVING RECOMMENDATIONS TO THE BOARD OF FISHERIES THAT: 1) SOCKEYE AND KING SALMON STOCKS OF THE SUSITNA/YENTNA RIVER DRAINAGES BE DESIGNATED "STOCKS OF CONCERN"; (2) A MANAGEMENT PLAN BE PREPARED TO PROTECT NORTHERN DISTRICT SALMON STOCKS TRANSITING THE CENTRAL DISTRICT; AND (3) ESCAPEMENT GOALS FOR ALL SALMON SPECIES OF THE NORTHERN DISTRICT BE ESTABLISHED.

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WHEREAS, personal use fisheries and sport fishing are extremely important to the residents of the northern district of Cook Inlet to provide fish for residents' tables and recreational activities; and

WHEREAS, spawning escapements for Susitna/Yentna Rivers Sockeye Salmon have fallen below the minimum escapement goal or goals at least two out of the last three years since the Board of Fisheries declared them a stock of yield concern in 2008; and

WHEREAS, personal use fisheries have occurred only twice in the last 10 years in northern district waters due to poor Sockeye Salmon returns; sport fisheries have been subject to continuous restrictions such as the prohibition of harvesting Sockeye Salmon; Coho Salmon limits have been reduced to two-fish daily bag limits along Parks Highway streams; and King Salmon limits have been restricted or completely closed due to poor returns; and

WHEREAS, northern district commercial set net fisheries have had one or more closed fishing periods in each of the past seven years; and



WHEREAS, commercial drift net fishing periods have been regularly increased in the central district, and for several years near record salmon harvests have been recorded since 2000; and

WHEREAS, the Sustainable Salmon Fisheries Policy requires that when a chronic inability to maintain minimum spawning escapements of a stock occurs, a stock of concern status shall be declared. In 2008, the Board of Fisheries declared Susitna/Yentna Rivers Sockeye Salmon as a stock of yield concern. Despite an action plan developed by the Alaska State Department of Fish and Game (ADF&G) and approved by the Board of Fisheries to revive the run strength, Susitna/Yentna Rivers Sockeye Salmon have failed to make minimum escapement goals two out of the three years the action plan has been in effect; and

WHEREAS, due to missed escapement goals the status of Susitna/Yentna Rivers sockeye salmon should be increased from a stock of yield concern to a more serious stock of management concern; and

WHEREAS, genetic salmon stock identification studies are in mid-course and other Susitna drainage fishery studies are also in progress, the numbers of issues cited herein indicate further research actions are in order to better understand the nature of salmon returns to the northern district. Improved management strategies must be developed to protect salmon stocks moving through the central district commercial fisheries of Cook Inlet on their return to their natal streams further north; and

WHEREAS, closures, restrictions and related regulatory actions in the northern district have had, and will continue to have significant social and economic impacts on Alaskans who rely on these resources.

NOW, THEREFORE, BE IT RESOLVED, the Matanuska-Susitna Borough requests the Alaska State Department of Fish and Game, and the Board of Fisheries, working together, declare the Sockeye Salmon stock of the Susitna/Yentna Rivers to be a stock of management concern, as mandated by the Sustainable Salmon Fisheries Policy (5AAC 39.222); and

BE IT FURTHER RESOLVED, that the Matanuska-Susitna Borough requests the legislature, with the support of the Governor, to continue to fund research projects, including the development and application of technology to document and improve multi-species salmon returns, for the Susitna/Yentna Rivers' salmon populations, with emphasis on king, sockeye, chum, and coho in that priority. This budget request includes providing on-going funding for enumerating king and coho salmon at the Deshka River weir and additional weirs, as needed, to determine in-season status of salmon returns and to aid in more accurate management of Northern District salmon stocks; and

BE IT FURTHER RESOLVED, that the Matanuska-Susitna Borough requests ADF&G to prepare a phased plan, with cost estimates showing the funds needed to add each species beyond Sockeye Salmon to the research projects mentioned earlier. The development of an all-species research project plan and cost figures by phase will


allow the legislature and the Governor to decide the extent to which studies will be cost-effective given the current fiscal environment; and

BE IT FURTHER RESOLVED, that the Matanuska-Susitna Borough considers it essential that escapement goals ultimately be established for all salmon species in the northern district of Cook Inlet. It is understood that it would require a minimum of seven to ten years of salmon return counts to gain sufficient knowledge to support establishing those goals. In the meantime, the establishment of a conservation corridor through the central district commercial fisheries as a precautionary management step is highly recommended to ensure that northern district stocks can pass safely through the central district.

ADOPTED by the Matanuska-Susitna Borough Assembly this 15 day of February, 2011.

  
LARRY DEVILBISS, Borough Mayor

ATTEST:

  
LONNIE R. MCKECHNIE, CMC, Borough Clerk

(SEAL)

PASSED UNANIMOUSLY: Keogh, Woods, Arvin, Ewing, Bettine, Colver,  
and Halter

Sponsored By: Assemblymember Colver  
Adopted: 02/15/11

**Matanuska-Susitna Borough  
RESOLUTION SERIAL NO. 11-025**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY MAKING  
RECOMMENDATIONS TO THE ALASKA BOARD OF FISHERIES CONCERNING UPPER  
COOK INLET PERSONAL USE SALMON FISHERY MANAGEMENT.

WHEREAS, personal use fishing is a valuable economic and recreational activity for residents of the Matanuska-Susitna Borough and together with sport fishing, they create more economic activity than the entire Upper Cook Inlet (UCI) commercial salmon fishery; and

WHEREAS, personal use fishing is important to residents living near the northern district stream drainages of Upper Cook Inlet because it provides salmon for personal consumption; and

WHEREAS, personal use fisheries have occurred only twice in the last ten years in northern district waters due to poor sockeye salmon returns; and

WHEREAS, personal use fishers are concerned about fisheries management decisions that have affected the delivery of fish in sufficient numbers to provide fishing opportunity, and crowding and habitat degradation caused by concentrating fishing in limited areas; and

WHEREAS, the Mayor's Blue Ribbon Sportsmen's Committee has developed recommendations, to present to the Board of Fisheries at their Upper Cook Inlet meeting in February 2011, to remedy problems of fishing opportunity and crowding with Upper Cook Inlet personal use fisheries.


NOW, THEREFORE, BE IT RESOLVED, the Matanuska-Susitna Borough requests the Alaska State Department of Fish and Game, and the Board of Fisheries, adopt no new regulations that reduce opportunity, participation, or harvest in the Kenai and Kasilof dip net fisheries; and

BE IT FURTHER RESOLVED, that the Matanuska-Susitna Borough recommends an expansion of the personal use gillnet fishery on the Kasilof River to spread out the users and reduce crowding with additional set gillnet fishing time on the same beaches in July; and


BE IT FURTHER RESOLVED, that the Matanuska-Susitna Borough requests that the escapement trigger for opening Fish Creek personal use fishery be reduced from 70,000, to 50,000; and

BE IT FURTHER RESOLVED, that Mayor's Blue Ribbon Sportsmen's Committee is authorized to bring this resolution to the Board of Fisheries on behalf of the Matanuska-Susitna Borough.

ADOPTED by the Matanuska-Susitna Borough Assembly this 15 day of February, 2011.

  
LARRY DEVILBISS, Borough Mayor

ATTEST:

  
LONNIE R. MCKECHNIE, CMC, Borough Clerk

(SEAL)

PASSED UNANIMOUSLY: Keogh, Woods, Arvin, Ewing, Bettine, Colver,  
and Halter