Brian Harrison

11/04/2020 11:52 AM AKST

RE: Tech set up, Introductions, Agenda review

I encourage the adoption of alternative #2. Alternative 4 would spell the demise of the drift fishery in Cook Inlet, and ultimately the end of most commercial fishing in Cook Inlet. The ability of the processing sector to survive means access to the resource for the fishermen. Confining the drift fishery to the corridor will result in a chaotic fishery and continuing over escapement. This is not a management scheme that the processing segment can survive on. Alternative 4 would also bring a loss of revenue to the City Of Homer through lost landings. The distance to productive fishing from Homer is too great, and will result in landings being made in Kenai and Kasilof rather than Homer. Additionaly, as the fleet shrinks, the businesses that really on these fishermen will suffer financially. As I understand it, the MSA is supposed to help small communities and fisheries survive and prosper through MSY and healthy management. Alternative 4 does quite the opposite. Please reject this alternative and the disastrous results that would ensue should it be adopted.

Erik Huebsch

11/04/2020 02:09 PM AKST

RE: Tech set up, Introductions, Agenda review

Want to testify regarding the Salmon FMP, proposed alternatives and the document i submitted.

United Cook Inlet Drift Association

43961 K-Beach Road, Suite E • Soldotna, Alaska 99669 • (907) 260-9436 • fax (907) 260-9438
• www.ucida.org •

May 18, 2020

Mr. Simon Kinneen, Chair
Mr. David Witherell, Executive Director
Dr. Sherri Dressel, Co-Chair of SSC
Dr. Anne Hollowed , Co-Chair of SSC
North Pacific Fishery Management Council
1007 West Third, Suite 400
Anchorage, Alaska 99501

Dear Mr. Kinneen, Mr. Witherell, Dr. Dressel and Dr. Hollowed:

We are writing to bring to your attention some issues that require resolution in the development of a new amendment to the Salmon FMP for Alaska. In the course of our participation in the Cook Inlet Salmon Committee we have encountered some critical, fundamental barriers to a successful outcome, two of which we address in this letter.

First, the North Pacific Fishery Management Council (Council) and National Marine Fisheries Service (NMFS) must revisit the conclusion reached during the Amendment 12 process that the State of Alaska's salmon management practices and escapement goals meet the requirements of the MSA and the 10 National Standards. That conclusion was based on representations that are no longer true. The prior conclusion was based on a letter from ADF&G Commissioner Denby Lloyd, followed by a paper explaining how state management of the salmon fisheries complies with the MSA, including how escapement goals are set.[1] The State represented, among other things, that "escapement goals are typically set at the range of escapements that provided 90% or more of MSY."; and "for salmon, maximum sustained yield is achieved by fishing appropriately to maintain the spawning **escapement at levels that provide potential to maximize surplus production**."[2] Those statements are now demonstrably incorrect. In fact, ADF&G is now deliberately and explicitly setting escapement goals substantially lower than 90% of MSY and is managing the Cook Inlet salmon fishery to minimize, not maximize, surplus production. ADF&G's present practices do not resemble its prior representations, and its present practices do not meet the requirements of the MSA and the National Standards.

Second, and by contrast, many of the technical tasks, on which the Cook Inlet Salmon Committee has spent many fruitless hours, were previously developed, and accepted by the Council, in the development

[1] ADF&G, 2010. State of Alaska's Salmon Fisheries Management Program. Response to Council request (June 30, 2010.) Correspondence. Juneau, Alaska. Attachment.

[2] Ibid, p.5

and passage of Amendment 12. As set forth below, some of these components are generally still applicable and should not need to be re-created for the new amendment.

Additionally, on May 7, 2020, President Trump signed an Executive Order titled "Executive Order on Promoting American Seafood Competitiveness and Economic Growth." This order mandates that regional fishery management councils develop a prioritized list of actions to reduce burdens on and to increase production from sustainable fisheries. The prioritized list must be produced with 180 days, and the changes must be proposed with one year. The information contained in our letter describes what is needed to increase production rapidly from the Cook Inlet salmon fishery, meet the requirements of the MSA and meet the new requirements of the Executive Order.

Alaska Salmon Management

Salmon management practices and salmon escapement goals developed by the State of Alaska do not meet the requirements of federal law. The Magnuson-Stevens Act (MSA) and National Standard 1 (NS1) requires achieving optimum yield (OY) from each fishery, establishes maximum sustained yield (MSY) as the basis for fishery management and requires that fishing mortality does not jeopardize the capacity of a fishery to produce MSY. Given that salmon populations exhibit compensatory and density dependent stock recruitment dynamics, achieving OY on a continuing basis for salmon stocks requires that salmon escapement goals be set as close as possible to MSY. Maximum sustained yield and OY are only achieved when MSY-centered escapement goals are established, and the fishery is managed for escapements that stay within that escapement goal range and distribute escapements within that range to achieve MSY as an average.

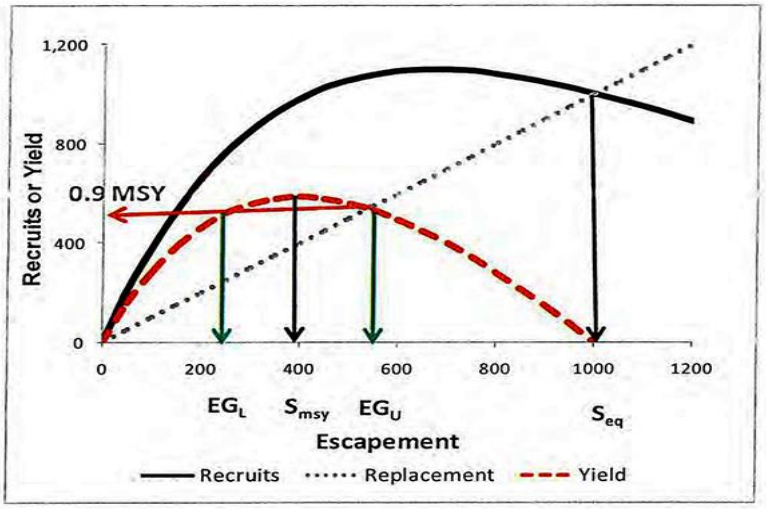
In the 2010 Salmon Fisheries Management Program document that Alaska provided the Council, the state asserted that salmon escapement goals were set at MSY within a 90% range. The following is an excerpt from that paper:

> "The compensatory nature of salmon populations is reflected in the Ricker stock recruitment model (Figure 1). Appropriate biological reference points used as benchmarks in status determinations, and in setting escapement goals can be determined from the Ricker model parameters estimated by fitting the Ricker model to historical stock-recruit data (Ricker 1954). ... **Escapement goals are typically set at the range of escapements that provided 90% or more of MSY.** The approach of using the fitted Ricker stock-recruit model to set escapement goals is routinely used by ADF&G for stocks where stock specific runs can be estimated and there is sufficient contrast in the historical escapement data to reflect density dependence." [3]

Figure 1, on the next page, is the Figure they reference in this paragraph.

[3] Ibid, p.5

Figure 1. ADF&G used this Ricker stock recruit model to illustrate the model that they said they routinely use for setting escapement goals.

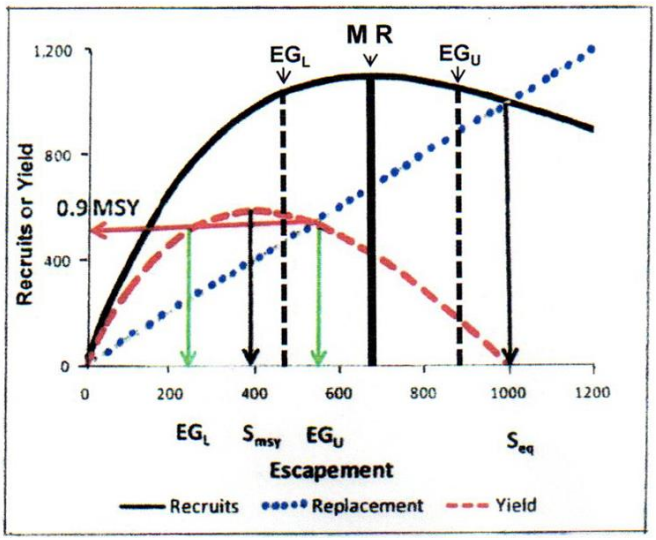


"Figure 1. Biological reference points associated with the Ricker stock-recruit model (R) and Ricker yield (Y) model, included are maximum sustained yield (MSY) escapement (Smsy), recruits at MSY escapement (Rmsy), equilibrium escapement (Seq), the lower end (EGL) and upper end (EGU) of escapement goal range, the MSY harvest rate (Umsy, the slope of line tangent to R at Smsy), and the overfishing rate (Uof, the slope of line tangent to R at the origin)."

A goal set for 90% of MSY encompasses a range of 10% on either side of the Smsy point on a yield curve (see the red line labeled *0.9 MSY* in Figure 1). **ADF&G and the Alaska Board of Fisheries (BOF) are no longer setting escapement goals that meet 90% of MSY for most salmon stocks.** Currently many salmon escapement goals are set very broadly. Instead of a range of 90% of MSY, they may encompass ranges as much as 30% below to 80% beyond Smsy. Achieving MSY becomes a random occurrence with goals this broad and yield is increasingly reduced with every degree on either side of Smsy on the yield curve.

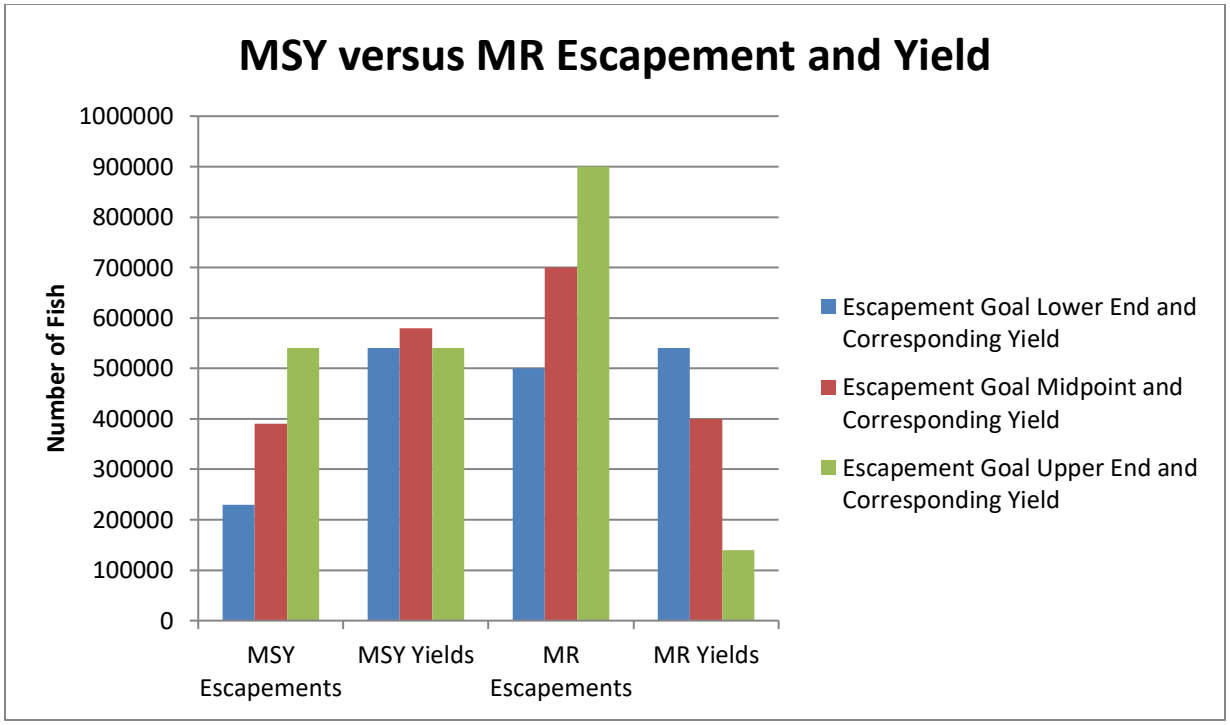
ADF&G is setting some goals on the recruitment curve, described as maximum recruitment (MR), with the lower end of this escapement range set beyond Smsy. When we compare MSY and MR on the same model it is clear that the range of the MR goal greatly reduces yield and almost entirely misses the 90% of MSY range. (See Figure 2.)

Figure 2. Same Ricker stock recruit model with maximum recruitment (MR) range added.



The further the goals depart from either side of the Smsy point on the yield curve, the greater the loss of yield. When you calculate the numbers from Figure 2, the difference in yield between MSY and MR become more apparent, as in Figure 3.

Figure 3. Graph of escapement and yield ranges demonstrating MSY (90% range) vs Maximum Recruitment; numbers extrapolated from Figure 2.



This graph is an alternate method of showing data from Figure 2. With escapement goals set at 90% of MSY, an escapement range of 230k to 540k produces a yield of 540k to 580k. In the maximum recruitment (MR) example, an escapement range of 500k to 900k produces a yield of 540k to 130k. The upper end of the MR escapement goal range decreases the yield or harvest by as much as 78%. If the MSY exploitation rate on this stock is about 58% and you reduce that exploitation rate by 78% or more due to an artificial goal or by mismanagement, there is very little yield or harvestable surplus left. This magnitude of yield/harvest reduction is economically devastating to the commercial fishing industry and does not meet the MSA and NS1 requirement of managing the fishery on the basis of MSY.

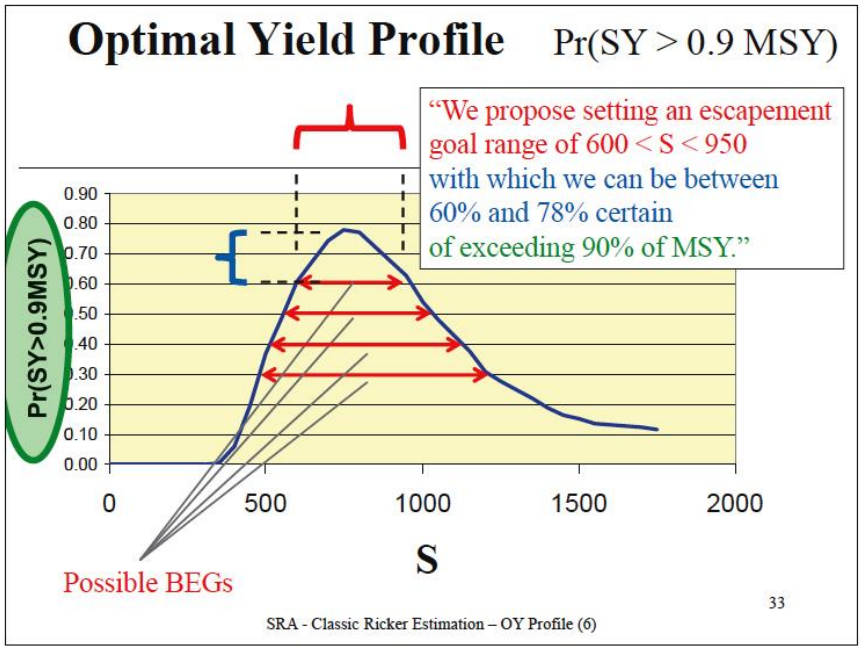
Figure 4. Correlation between goals, underfishing and overfishing.

Escapement Goal range set as percentage of Smsy = % chance of achieving MSY	At Escapement Goal Lower end (EGL) = increasing % chance of overfishing	Escapement Goal Upper end (EGU) = increasing % chance of underfishing
90%	10%	10%
80%	20%	20%
70%	30%	30%
50%	50%	50%

Setting escapement goals farther away from the Smsy point goal decreases the probability of achieving MSY and directly increases the probability of overfishing or underfishing. Setting goals based on MR virtually eliminates any possibility of achieving MSY.

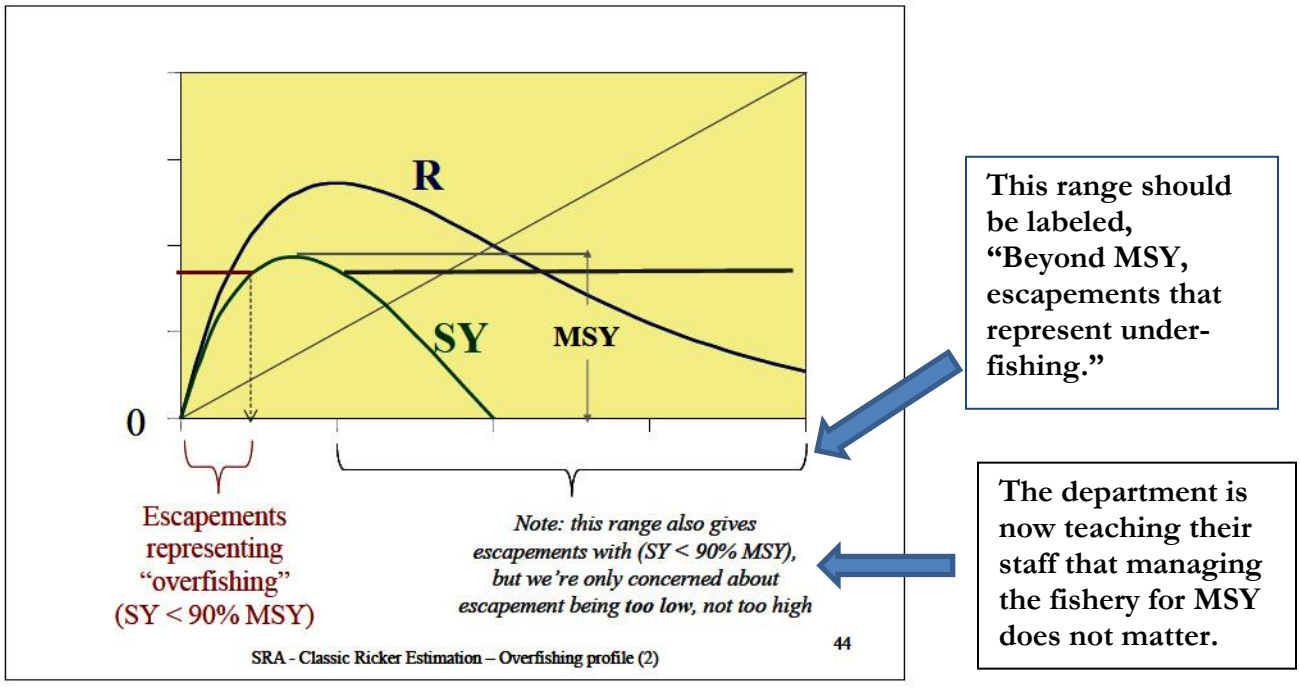
ADF&G is now deliberately and explicitly setting escapement goals substantially lower than 90% of MSY. The department's "Mechanics of Escapement Goal Analysis in Alaska" lecture slides, for staff training, recommend numerous strategies for setting escapement goals that do not meet the standard of 90% of MSY (see Figures 5 and 6).

Figure 5. Slide 33, 2020 ADF&G Mechanics of Escapement Goal Analysis in Alaska; Stock-Recruit Analysis: Ricker Stock-Recruit Relationship.



Here ADF&G recommends a relatively low probability of achieving 90% of MSY, 60% of EGL to 60% of EGU with a peak of 78% probability of achieving 90% of MSY at the peak. This translates to a 30% chance of overfishing at EGL to a 30% chance of under fishing at EGU. While this graph states this goal is between 60-78% "certain" of exceeding 90% of MSY, it is not, it is only a probability of 90%. As Figure 3 illustrated, broadening escapement goals and reducing the percentage of MSY achieved to less than 90% of MSY significantly decreases yield.

Figure 6. Slide 44, 2020 ADF&G Mechanics of Escapement Goal Analysis in Alaska; Stock-Recruit Analysis: Ricker Stock-Recruit Relationship.



This slide clearly illustrates that the department is not concerned with loss of yield or managing the fishery for MSY. They state that they are "only concerned about escapement being **too low**, not too high." This is a striking departure from the state's 2010 assertions to Council that:

- "Escapement goals are typically set at the range of escapements that provided 90% or more of MSY."; and
- "For salmon, maximum sustained yield is achieved by fishing appropriately to maintain the spawning **escapement at levels that provide potential to maximize surplus production**."[4]

When ADF&G now says that they are not concerned about managing the fishery for MSY, this contradicts their previous statements to the Council in 2010 and is contrary to the language in the findings and the purpose of the MSA and the requirements in NS1.

In the same training slide series, on slides 36 and 37, the guidelines repeat the following statement: "High performance requirements are associated with narrower goals; lower performance requirements are associated with wider goals."[5] Another way to say this is that narrow goals, such as 90% of MSY, require adaptive in-season management. Apparently, the ADF&G is very willing to forego harvest of surplus stocks (yield) for the sake of making their job easier. It is also a simple way to avoid accountability for

[4] Ibid, p.5, p.4
[5] 2020 ADF&G Mechanics of Escapement Goal Analysis in Alaska; Stock-Recruit Analysis: Ricker Stock-Recruit Relationship.

poor in-season management. The MSA and NS1 require managing this valuable resource for MSY. The State of Alaska, NMFS or the Council cannot decide that a lower standard for management is acceptable.

The state's policies of wider goals and lower performance requirements are affecting state-wide salmon management. In the following pages we examine a few of the many Cook Inlet salmon stocks that are not being managed to MSY, but are being managed with "wider goals" and "lower performance requirements." These examples include Eastside Susitna River Chinook, Deshka River Chinook, Kasilof River sockeye and Kenai River late-run sockeye.

The Eastside Susitna River Chinook and the Deshka River Chinook escapement goals have not been based on 90% of MSY for some time. Escapement goals were set extremely broadly, not at levels that provide potential to maximize surplus production. The consequences were over-escapements, run failures and fishing restrictions that all resulted in significant lost yield. We will examine the historic escapement goals and then the harvest rates on these Chinook stocks.

Eastside Susitna River Chinook

Eastside Susitna River Chinook escapement goals are set so high as to almost miss the 90% of MSY range. This is an example of ADF&G using maximum recruitment to set the goal.

Figure 7. Eastside Susitna River Chinook as modified from Reimer, 2020. (Reimer, A. M., and N. A. DeCovich. 2020. Susitna River Chinook salmon run reconstruction and escapement goal analysis. Alaska Department of Fish and Game, Fishery Manuscript No. 20-01, Anchorage. p.54)

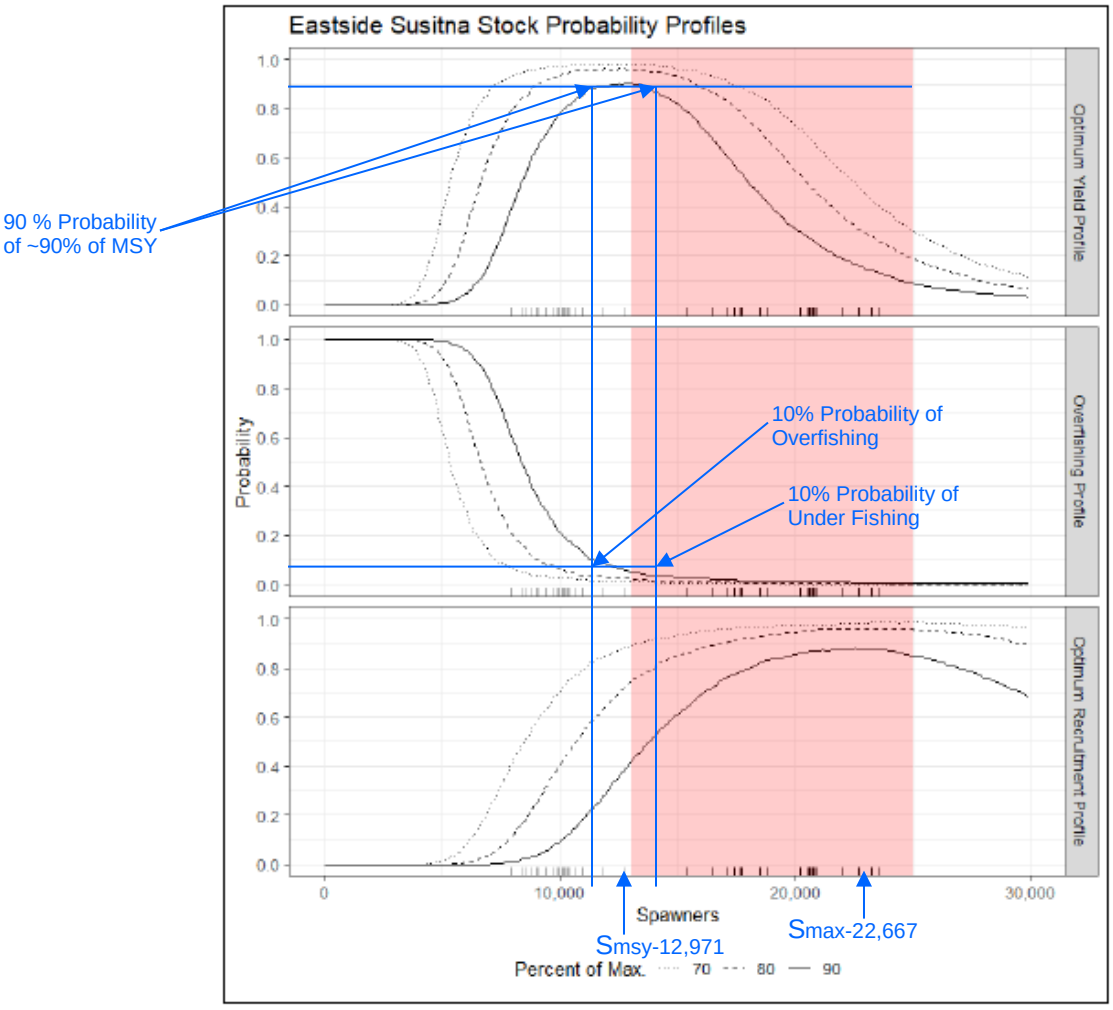


Figure 11.–Optimal yield (OYP), overfishing, and optimum recruitment (ORP) profiles for the Eastside Susitna Chinook salmon stock. Profiles show the probability that a specified spawning abundance will result in specified fractions (70%, 80%, and 90% line) of maximum sustained yield (OYP and overfishing) or maximum sustained recruitment (ORP).

Note: Pink shaded areas bracket the proposed goal range; grey and black marks along the *x*-axis show comparable lower and upper bounds, respectively, scaled by S_{MSY} ratios for other Alaskan Chinook salmon stocks (see Methods).

The pink shaded area delineates ADF&G's proposed goal range for Eastside Susitna Chinook. Ninety percent of MSY and other calculations have been added in blue. Under-fishing is guaranteed. For 90% of MSY the escapement goal would be ~11,000 to 14,000, not 13,000 to 25,000 as ADF&G has suggested.

ADF&G's escapement goal range is from slightly above SMSY at the lower end, to 2,300 past Smax, **basically ensuring no yield in any fishery**, and not 90% of MSY as they previously claimed.

Figure 8. Eastside Susitna River Chinook as Modified from Reimer, 2020. (Reimer, A. M., and N. A. DeCovich. 2020. Susitna River Chinook salmon run reconstruction and escapement goal analysis. Alaska Department of Fish and Game, Fishery Manuscript No. 20-01, Anchorage. p.53)

ADF&G escapement goal in red – 13,000 – 25,000

A goal range set for 90% of MSY – in blue - would be 11,000 – 14,000

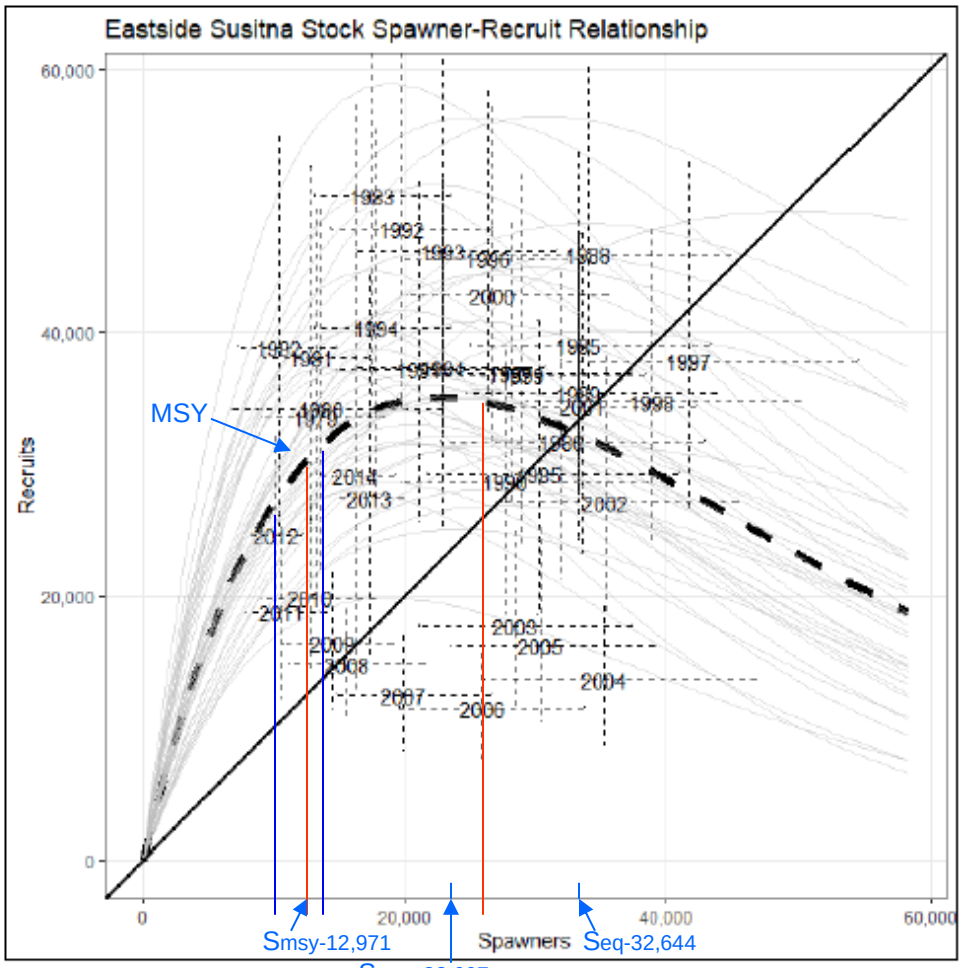


Figure 10.–Plausible spawner-recruit relationships for the Eastside Susitna Chinook salmon stock as derived from an age-structured state-space model fitted to abundance, harvest, and age data for 1979–2017.

Note: Posterior means of R and S are plotted as brood year labels with 95% credibility intervals plotted as light dashed lines. The heavy dashed line is the Ricker relationship constructed from $\ln(\alpha')$ and β posterior medians. Ricker relationships are also plotted (light grey lines) for 40 paired values of $\ln(\alpha')$ and β sampled from the posterior probability distribution, representing plausible Ricker relationships that could have generated the observed data. Recruits replace spawners (R = S) on the diagonal line.

Prior to 2020, ADF&G and the BOF created numerous restrictions, in regulation, to commercial, sport and subsistence fisheries because of low escapement counts of these Chinook. The low escapement counts were likely due to the department's use of poor assessment techniques, usually consisting of single aerial surveys. From this analysis we now see that those restrictions were not necessary. In the data set for 1979 to 2017 in the above graph, only two years had escapements below their inflated goal, and none are below a 90% of MSY range of 11,000 – 14,000

Deshka River Chinook

Prior to 2020, the Deshka River Chinook had a goal range similar to that of the Eastside Susitna, as illustrated in Figure 6. For decades it cycled between over-escaping, and under-escaping, with numerous fishing restrictions. This has resulted in a 1:1 return per spawner ratio which, in a managed stock, is a clear case of a management failure. As of 2020 the goals were changed but they are still too wide.

Figure 9. Deshka River Chinook S/R Analysis as modified from Reimer, 2020. (Reimer, A. M., and N. A. DeCovich. 2020. Susitna River Chinook salmon run reconstruction and escapement goal analysis. Alaska Department of Fish and Game, Fishery Manuscript No. 20-01, Anchorage. p.49)

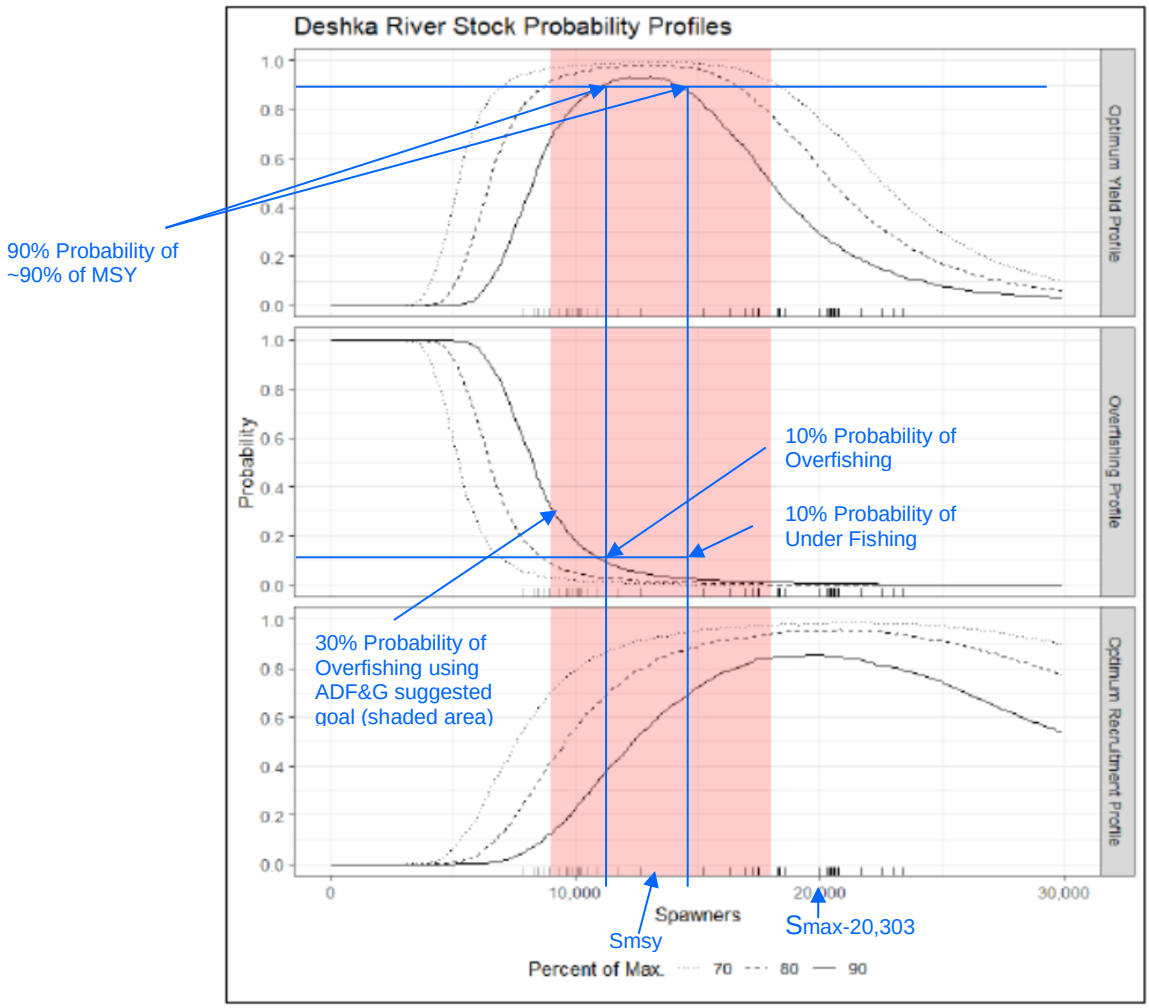


Figure 6.–Optimal yield (OYP), overfishing, and optimum recruitment (ORP) profiles for the Deshka River Chinook salmon stock. Profiles show the probability that a specified spawning abundance will result in specified fractions (70%, 80%, and 90% line) of maximum sustained yield (OYP and overfishing) or maximum sustained recruitment (ORP).

Note: Pink shaded areas bracket the proposed goal range; grey and black marks along the *x*-axis show comparable lower and upper bounds, respectively, scaled by S_{MSY} ratios for other Alaskan Chinook salmon stocks (see Methods).

The pink shaded area delineates ADF&G's proposed goal range for Deshka Chinook. Ninety percent of MSY and other calculations have been added in blue. A goal range set for 90% of MSY would be ~11,000 to 15,000, not 9,000 to 18,000 as ADF&G has suggested.

Figure 10. Deshka River Chinook Spawner-Recruit Relationship analysis as modified from Reimer, 2020. (Reimer, A. M., and N. A. DeCovich. 2020. Susitna River Chinook salmon run reconstruction and escapement goal analysis. Alaska Department of Fish and Game, Fishery Manuscript No. 20-01, Anchorage. p. 48)

ADF&G goal range prior to 2020 in Red: 13,000 – 27,000 (Smsy – 17,230)

New ADF&G 2020 goal in Green: 9,000 – 18,000 (Smsy – 12,564)

A goal range set for 90% of MSY would be 11,000 – 15,000 (see previous figure)

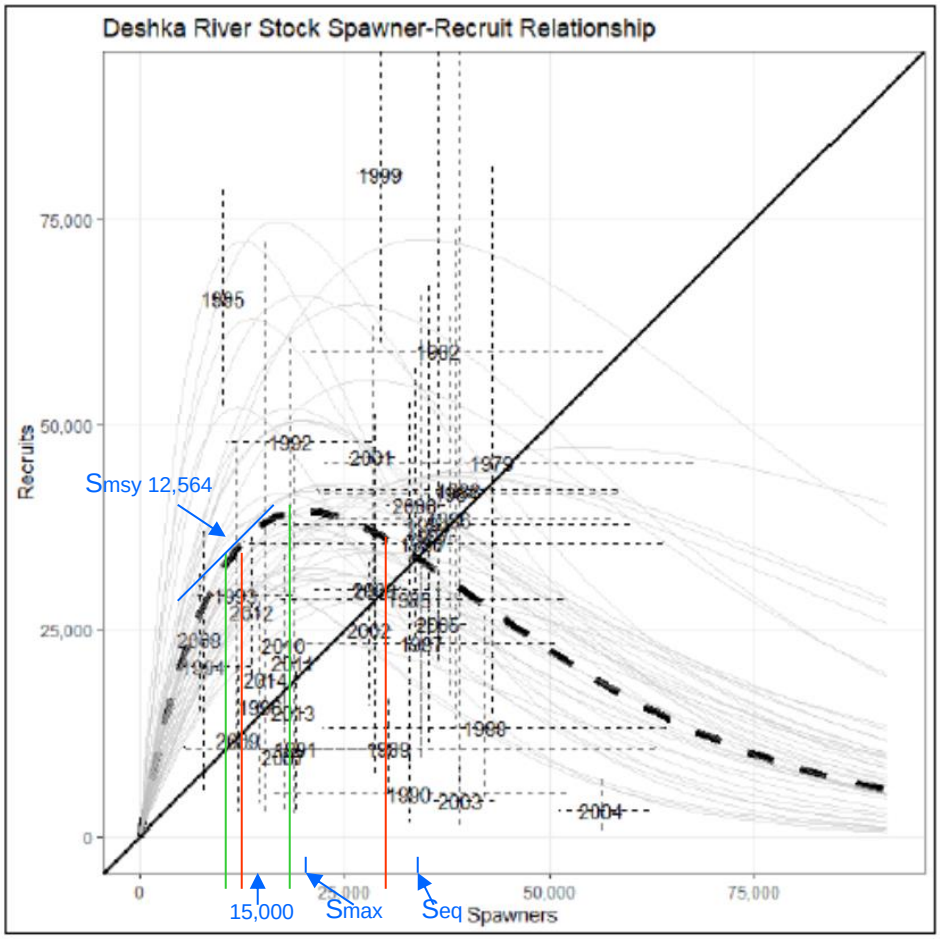


Figure 5.–Plausible spawner-recruit relationships for the Deshka River Chinook salmon stock as derived from an age-structured state-space model fitted to abundance, harvest, and age data for 1979–2017.

Note: Posterior means of R and S are plotted as brood year labels with 95% credibility intervals plotted as light dashed lines. The heavy dashed line is the Ricker relationship constructed from $\ln(\alpha')$ and β posterior medians. Ricker relationships are also plotted (light grey lines) for 40 paired values of $\ln(\alpha')$ and β sampled from the posterior probability distribution, representing plausible Ricker relationships that could have generated the observed data. Recruits replace spawners (R = S) on the diagonal line.

From 1999 to 2019 ADF&G's goal range, in RED, was set using 20% less than Smsy to 50% beyond Smsy, with the upper end of the goal being set at ~Smax. Beginning in 1979, in 14 of 36 years the escapements were to the right of and below replacement, causing numerous restrictions. From 1979-2009 the average harvest was 5,500, far below the expected yield of 25,000. (2009 was the date of the last available harvest table.)

Using ADF&G's new 2020 goal, in GREEN, Smsy drops by 5,000 Chinook and the new goal is 9,000 to 18,000. Most past escapements, in 21 of 36 years, were over the top end of this new goal. Yet fishing restrictions remain in place, in regulation and management plans, guaranteeing the continued loss of yield of these and other stocks.

In Figure 11, ADF&G's records show the significant yield loss in these Chinook stocks since 1979, illustrating the consequences of the inappropriate escapement goals. Over 38 years, the Deshka lost an average of 80% of the available Chinook yield and East Susitna lost an average of 58%.

Figure 11. Chinook Harvest Rates as modified from Reimer, 2020. (Reimer, A. M., and N. A. DeCovich. 2020. Susitna River Chinook salmon run reconstruction and escapement goal analysis. Alaska Department of Fish and Game, Fishery Manuscript No. 20-01, Anchorage. p.65)

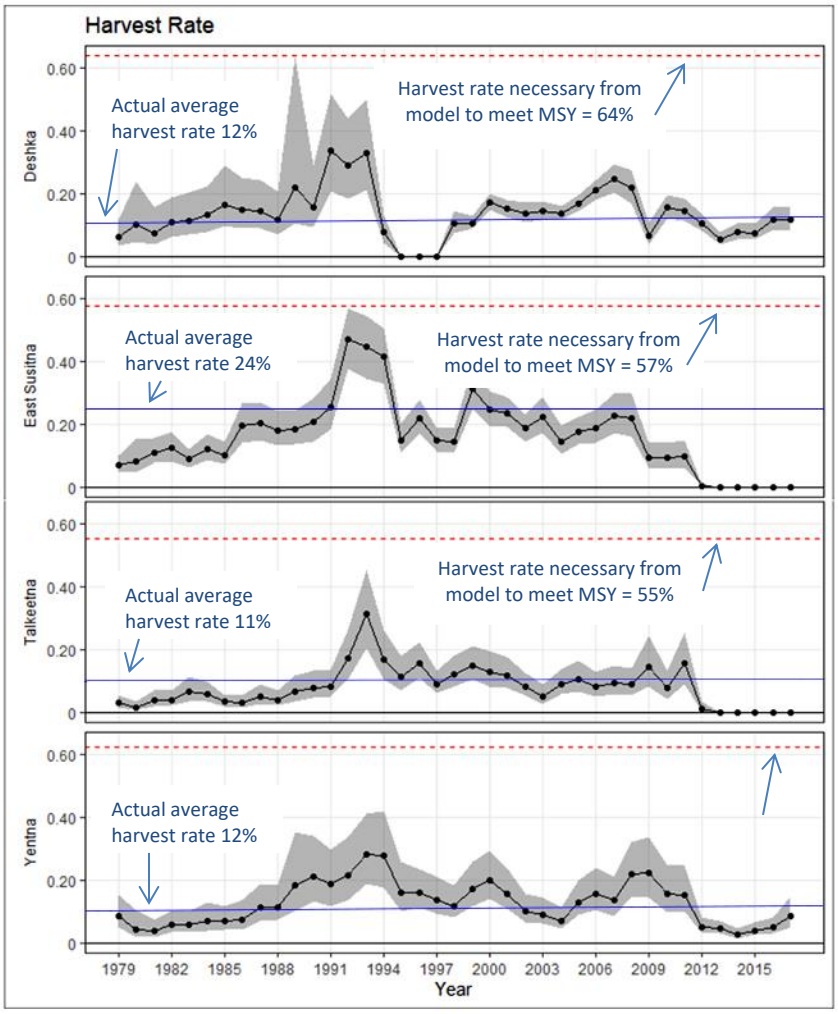


Figure 22.–Point estimates (posterior medians; solid lines) and 95% credibility intervals (shaded areas) of harvest rate from a state-space model by stock, 1979–2017.

Note: The posterior median of U_{MSY} is plotted as short-dash horizontal reference line.

Deshka: ~81% of the available yield lost through bad escapement goals and mismanagement. **Over 36 years the loss is 582,000 Chinook or 16,000 per year**.

East Susitna: ~58% of the available yield lost through bad escapement goals and mismanagement. **Over 36 years the loss is 425,000 Chinook or 11,750 per year.**

Talkeetna: ~80% of the available yield lost through bad escapement goals and mismanagement. **Over 36 years the loss is 404,000 Chinook or 11,000 per year**.

Yentna: ~81% of the available yield lost through bad escapement goals and mismanagement. **Over 36 years the loss is 625,000 Chinook or 17,300 per year.**

The average annual lost yield from just these four examples adds up to well over 50,000 Chinook per year. These lost yield figures do not account for lost future yields within these systems or the significant lost yield of other species due to fishing restrictions. Bad management of these stocks perpetuate commercial, sport and subsistence fishing restrictions even though yields on these stocks are so low. These incorrect Chinook salmon goals and others just as contrived, like the Little Susitna River coho goal, **are very deliberately used by the BOF and ADF&G as justifications for restricting commercial fishing on all stocks.**

Kasilof River sockeye

The escapement goal for Kasilof River sockeye salmon is also set far too broadly. It is not set at 90% of MSY. ADF&G has the goal set at 140,000 to 320,000 rather than 90% of MSY, which would be ~160,000 to 260,000 salmon. This goal range has a 50% chance of overfishing and a 50% chance of underfishing and only a 50% chance of achieving MSY.

Figure 12. Kasilof River Optimum Yield Profiles as modified from McKinley, 2019 McKinley, T., N. DeCovich, J. W. Erickson, T. Hamazaki, R. Begich, and T. L. Vincent. 2020. Review of salmon escapement goals in Upper Cook Inlet, Alaska, 2019. Alaska Department of Fish and Game, Fishery Manuscript No. 20-02, Anchorage. p.41

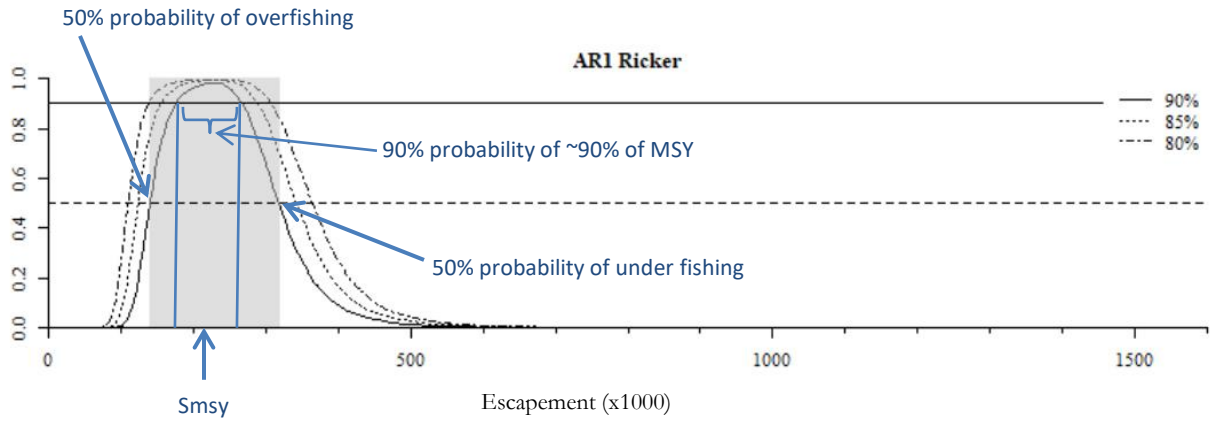


Figure 8.–Optimum yield profiles for Kasilof River sockeye salmon. Note: Profiles show the probability that a specified spawning abundance will result specified fractions (80%, 85%, and 90% lines) of maximum sustained yield for 5 spawner-recruit models fit to data from brood years 1968–2012. Shaded ranges represent the recommended escapement goal (140,000–320,000)

ADF&G's in-season management of Kasilof River sockeye is also failing to keep escapement numbers within any defined goal range. In 14 of the last 20 years the Kasilof sockeye escapement exceeded the upper end of the inflated goal range and in 16 of the last 20 years the escapement exceeded the upper end of 90% of MSY. If the management practices are not achieving the goal of MSY, then those practices must change.

Kenai River late-run sockeye

In the past, Kenai River late-run sockeye goals were set based on the Markov Table. Beginning about 20 years ago the department began using models to establish the goals. All the models predicted better returns at a higher level of escapement than the Markov Table demonstrated. **This 20 year experiment has been an undeniable failure.** In the last 20 years, the predicted higher level of return has never been realized from escapements over 1 million sockeye. **In the last 51 years of data, there has only been one year, 1987, that saw a higher than average yield from a spawning escapement of over 1 million.**

It is important to note that in the field of statistics, there is a truism that states "**All models are wrong, but some models are useful**". The idea that complex physical or biological systems can be exactly and reliably described by a few mathematical formulas is absurd. In this application the models that ADF&G

are using to set escapement goals for the Kenai River sockeye are not only wrong, they are harmfully wrong. They are harmful to the salmon resource, they are harmful to the economies that are built around the harvest of surplus salmon stocks and they are harmful to the coastal communities whose social and economic well-being depend on these resources.

Figure 13, below, contains the empirical data from over four decades of Kenai River late-run sockeye. This is the best scientific information available (National Standard 2). The highlighted range of escapements shows the level of spawners that produces the highest average yield and the highest average return.

Figure 13. Kenai River late-run sockeye Markov Table for brood years 1969-2012 in 200,000-fish overlapping intervals of escapement.

Escapement	n	Mean	Mean	Return per	Yield	
Interval (000)		Spawners (000)	Returns (000)	Spawner	Mean (000)	Range (000)
0-200	3	120	679	6	564	358-871
100-300	3	165	798	5	633	449-871
200-400	2	292	1,055	4	763	578-947
300-500	4	414	2,179	5	1,764	580-3,413
400-600	9	497	2,448	5	1,950	580-3,413
500-700	8	563	3,046	5	2,483	999-6,361
600-800	9	734	4,636	6	3,902	713-8,832
700-900	8	768	4,497	6	3,729	713-8,832
800-1,000	7	943	3,664	4	2,720	692-4,806
900-1,100	7	970	3,612	4	2,642	692-4,806
1,000-1,200	2	1,082	3,628	3	2,546	2,504-2,588
1,100-1,300	5	1,291	3,291	3	2,082	277-3,229
1,200-1,400	6	1,266	3,250	3	1,985	277-3,229
> 1,300	12	1,701	4,321	3	2,619	520-8,345

Returns per spawner and mean yields both decline significantly when mean spawners increase above 900,000.

Further analysis of historical data reinforces this conclusion. When spawners, returns and yields are sorted by the escapement size (number of spawners), there is a distinct range that produces the highest yield (see Figure 14). The same escapement range of 600,000 to 800,000 produced the highest average yield.

Figure 14 (Part 1 of 2). Yield from the number of spawners from ADF&G brood tables, 1969-2012, sorted by size of escapements/spawners, for Kenai River sockeye salmon.

Brood Year	Spawners	Returns	Yield	Return per Spawner	Harvest Rate
1969	72,901	430,947	358,046	5.91	0.83
1970	101,794	550,923	449,129	5.41	0.82
1975	184,262	1,055,373	871,111	5.73	0.83
1974	209,836	788,067	578,231	3.76	0.73
1979	373,810	1,321,039	947,229	3.53	0.72
1971	406,714	986,397	579,683	2.43	0.59
1972	431,058	2,547,851	2,116,793	5.91	0.83
1984	446,397	3,859,109	3,412,712	8.65	0.88
1973	507,072	2,125.986	1,618,914	4.19	0.76
1976	507,440	1,506,012	998,572	2.97	0.66
1978	511,781	3,785,040	3,273,259	7.40	0.86
1981	535,523	2,464,323	1,928,800	4.60	0.78
1986	555,207	2,165,138	1,609,931	3.90	0.74
1985	573,836	2,587,921	2,014,085	4.51	0.78
1980	615,382	2,673,295	2,057,913	4.34	0.77
2000	696,899	7,058,348	6,361,449	10.13	0.90
2008	708,833	3,377,884	2,669,051	4.77	0.79
1991	727,159	4,436,074	3,708,915	6.10	0.84
2001	738,229	1,698,142	959,913	2.30	0.57
1982	755,672	9,587,700	8,832,028	12.69	0.92
1995	776,880	1,899,870	1,122,990	2.45	0.59
1983	792,765	9,486,794	8,694,029	11.97	0.92
1990	794,754	1,507,693	712,939	1.90	0.47
2009	848,117	3,983,872	3,135,755	4.70	0.79

This highlighted range of spawners, between 600,000 and 800,000, produced the highest average yield of 3.9 million salmon. Four of the nine years have a yield over 3 million. No other range on this or the following section of the table is comparable.

Figure 14 (Part 2 of 2). Yield from the number of spawners from ADF&G brood tables, 1969-2012, sorted by size of escapements, for Kenai River sockeye salmon.

Brood Year	Spawners	Returns	Yield	Return per Spawner	Harvest Rate
1998	929,091	4,465,328	3,536,237	4.81	0.79
1999	949,276	5,755,063	4,805,787	6.06	0.84
1977	951,038	3,112,620	2,161,582	3.27	0.69
1996	963,125	2,261,757	1,298,632	2.35	0.57
2007	964,261	4,376,406	3,412,145	4.54	0.78
1993	997,730	1,689,779	692,049	1.69	0.41
2010	1,037,666	3,625,388	2,587,722	3.49	0.71
2002	1,126,642	3,630,740	2,504,098	3.22	0.69
1992	1,207,382	4,271,576	3,064,194	3.54	0.72
2012	1,212,837	1,490,134	277,297	1.23	0.19
1988	1,213,047	2,546,639	1,333,592	2.10	0.52
2011	1,284,486	4,513,815	3,229,329	3.51	0.72
1994	1,309,695	3,052,634	1,742,939	2.33	0.57
1997	1,365.746	3,626,402	2,260,656	2.66	0.62
2003	1,402,340	1,922,165	519,825	1.37	0.27
2005	1,654,003	4,802,362	3,148,359	2.90	0.66
2004	1,690,547	3,240,428	1,549,881	1.92	0.48
2006	1,892,090	5,003,585	3,111,495	2.64	0.62
1987	2,011,772	10,356,627	8,344,855	5.15	0.81
1989	2,026,637	4,458,679	2,432,042	2.20	0.55

For the 21 data points within the range of 848,000 to 2,027,000 spawners, the average yield is 2.6 million salmon. This is about 33 percent less than the average yield of 3.9 million salmon within the range of 600,000 to 800,000 spawners. Only 2 of the 21 data points for escapements above 800,000 spawners have a yield equal to or above 3.9 million. The excess escapements put future returns at risk.

Despite this information, gathered from 44 years of Kenai River late-run sockeye runs, ADF&G and the BOF are still setting goals based on the various models, and they are still continuing to increase the goal range. In 2020, ADF&G raised the Kenai River late-run sockeye SEG goal range even higher, now set at 750,000 to 1.3 million. The BOF also raised the allocative "in-river goals", in 3 different tiers, to range

from 1 million to 1.6 million sockeye. In addition, just like in the Kasilof River, the in-season management of the Kenai River late run sockeye is also failing to keep escapement numbers within any defined goal range. In 14 of the last 20 years and in 9 of the last 10 years, the Kenai sockeye escapement exceeded the upper end of the inflated goal range.

In 5 of the last 10 years the Kenai sockeye escapement has exceeded 1.5 million. The in-river sport-fishery does not have the capacity to harvest these excess sockeye, so the result is an immediate loss of 500,000 to a million sockeye that could be harvested by the commercial fishery. We cannot afford to waste these 500,000 or more sockeye that are surplus to spawning needs. Five hundred thousand sockeye, or more, equates to a minimum of 3 million pounds of salmon being wasted annually.

From ADF&G's 2020 analysis shown in Figure 15 below, the estimate of MSY and the goal ranges do not come close to the empirical data estimates of MSY from the Markov Table (Figure 13) or the brood table (Figure 14). The fit of all the ADF&G's models, including the brood year interaction model used since 1999, are very poor and get worse every year. They all over-predict the return from any level of escapement. None of the 90% goal ranges from the models come close to 90% of MSY.

Figure 15. Kenai Sockeye Return per Spawner model (Ricker) from Hasbrouck 2020 (Hasbrouck, J. J., W. D. Templin, A. R. Munro, K. G. Howard, and T. Hamazaki. Unpublished. Spawner–recruit analyses and escapement goal recommendation for Kenai River late-run sockeye salmon. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, Anchorage. 2020 p.25)

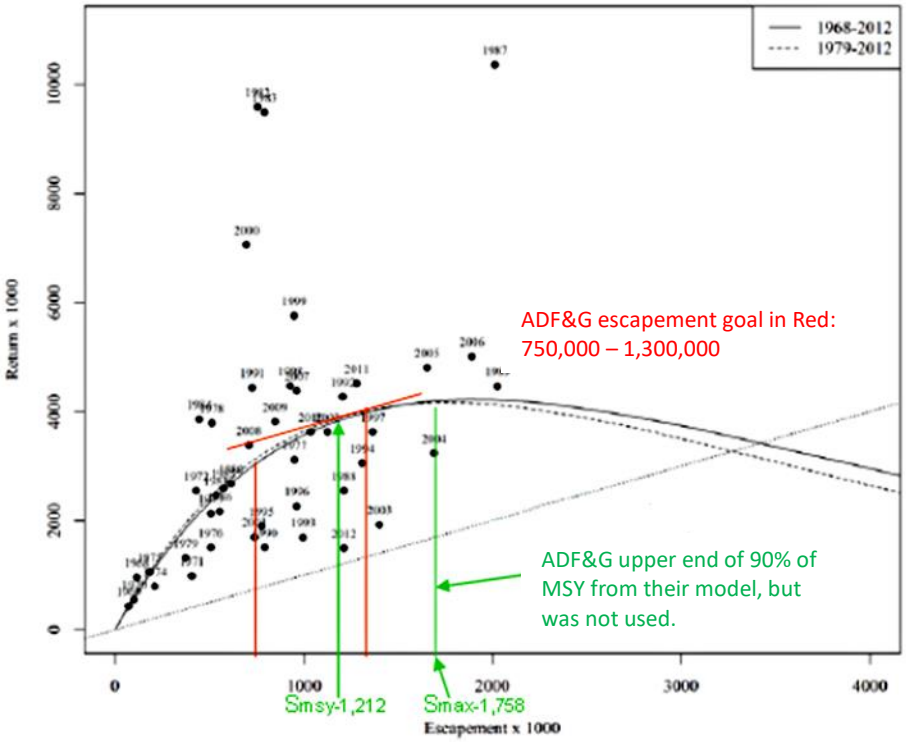


Figure 6.–Classic Ricker model fit to Kenai River late-run sockeye salmon spawner-recruit data from 1968–2012 (solid line) and 1979–2012 (dashed line).

In Figure 16 the escapement goal ranges in red suggested by ADF&G in the yield profiles do not represent 90% of MSY as ADF&G reports in Hasbrouk, et al, 2020. In addition, these analyses do not agree with the empirical data in the Markov Table (Figure 12) from which they originate. A 50% to 70% chance of overfishing does not meet the 90% of MSY standard.

Figure 16. Kenai Sockeye Estimated Yield Profiles from Hasbrouck 2020 (Hasbrouck, J. J., W. D. Templin, A. R. Munro, K. G. Howard, and T. Hamazaki. Unpublished. Spawner–recruit analyses and escapement goal recommendation for Kenai River late-run sockeye salmon. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, Anchorage. 2020 p.227)

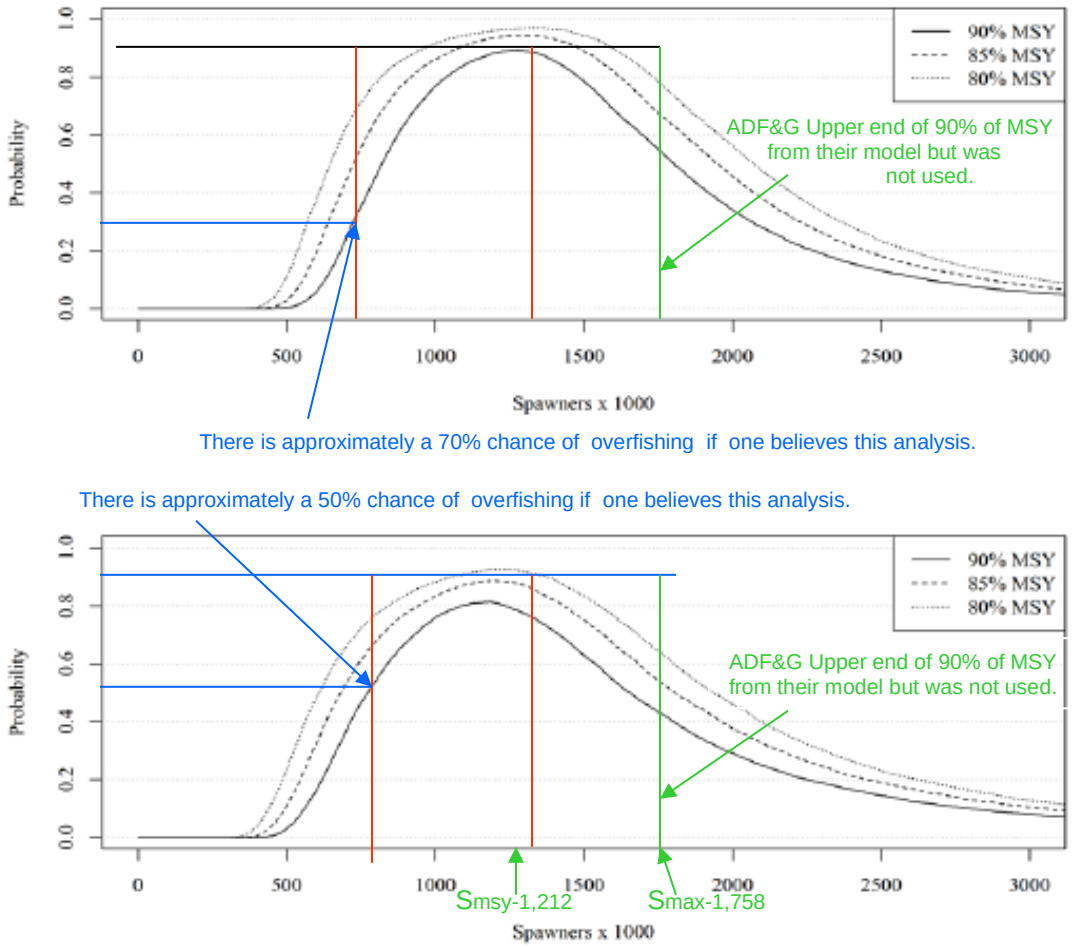


Figure 8.–Estimated yield profiles based on the classic Ricker model using spawner-recruit data from 1968–2012 (top panel) and 1979–2012 (bottom panel).

ADF&G is not setting the goal range using the methods they described to the Council in 2010. In using these yield profile models, they change the parameters so that they fall far outside of the standard of 90% of MSY.

Forty-four years of empirical data (Markov Table) are an asset in setting escapement goals, provided the data is utilized. The data is so clear it begs the question of why ADF&G is not using it to formulate escapement goals for the Kenai River late-run sockeye salmon. It would appear that ADF&G is

deliberately trying to reduce yield in the commercial fishery. Harvests have been reduced due to unnecessarily high escapement goals. Harvests have been further reduced by ADF&G's unwritten policy of managing for escapements at the high end of the goal range. Harvests have been even further reduced by escapements exceeding the upper limit of already too-high escapement goals. They are using incorrect escapement goals and prescriptive management plans that limit in-season adaptive management and the result is diminished returns and continued lost yield. In other words, the state is managing the Cook Inlet salmon fishery with the objective of putting the commercial fishing industry out of business.

Many of the methods that ADF&G and the BOF are using to manage the Cook Inlet salmon fishery are very similar to what occurred during the federal management era prior to Alaska statehood, when salmon fisheries were largely managed by fishing schedules and fishing areas defined in regulation pre-season, and in-season adjustments were delayed until they were too late to be effective.

Lost yields are not just lines on a graph or expressions of probability. The "too-high escapements," that ADF&G has declared they are not concerned about, constitute a deliberate waste of harvestable surplus salmon. This deliberate waste has resulted in shuttered seafood processing plants and fishing businesses and the loss of thousands of jobs. It has cost hundreds of millions of dollars of lost commerce for the state and nation and has caused tremendous hardships in coastal communities. This is an irresponsible and irretrievable loss. It does not meet basic standards of MSY or OY. The State of Alaska's salmon fishery management does not comply with the requirements of MSA or the 10 National Standards.

The examples of mismanaged Chinook and sockeye stocks illustrated above are just a few of the many examples that we could describe. The coho, pink and chum runs into Cook Inlet are largely unmonitored and unharvested. There is no attempt by the ADF&G to meet any of the requirements of the MSA or the National Standards for these stocks. The pink salmon run into Cook Inlet is the largest stock that enters Cook Inlet, some years exceeding 20 million salmon, yet there is no active management and only incidental harvest of this stock. This does not meet the NS1 requirement of MSY as the basis for fishery management. In Cook Inlet there are more wild-run pink salmon wasted because of bad management than some pink salmon hatcheries produce (at a cost of millions of dollars) in other areas of the state.

Meeting MSA Requirements in Managing the Cook Inlet Salmon Fishery

UCIDA had the expectation that Cook Inlet stakeholders would be included in the process of developing an FMP for the obvious benefit of providing valuable local knowledge and experience with this particular fishery. Instead, the stakeholders on the Cook Inlet Salmon Committee were initially tasked with developing Status Determination Criteria (SDCs), ACLs and AMs for a portion of the fishery. The Salmon Working Group (consisting of staff members from Council, NMFS and ADF&G) repeatedly described this task to the Salmon Committee as an intractable, unsolvable problem. However, in 2010 the Council accepted the information regarding SDCs, ACLs, and AMs, provided to them by ADF&G and utilized it in developing Amendment 12.

When the Council adopted Amendment 12, they accepted the State's approach as described in the 2010 State of Alaska's Salmon Fisheries Management Program paper that described the exploitation rates,

conversions for escapement-based reference points and conversions for catch-based and exploitation rate-based management targets to fit in the OFL/ABC/ACL framework. (The state's document is attached.)

During Cook Inlet Salmon Committee meetings, the Salmon Working Group challenged the stakeholders' recommendations for appropriate exploitation rates of salmon species. However, the stakeholders' recommended exploitation rates were right in line with those described in the State's 2010 paper: "State of Alaska's Salmon Fisheries Management Program," excerpted here:

> "Biological reference points estimated for many salmon stocks demonstrate that salmon populations are extremely productive, with the limit return per spawner (α) averaging 3.7, 4.0, 3.7, 6.0, and 6.9 for pink, chum, coho, sockeye, and Chinook salmon, respectively**. MSY exploitation rates (i.e., the average harvest rates employed to maintain constant escapement in the escapement goal range) are high, averaging 0.53, 0.56, 0.63, 0.65, and 0.68 for pink, chum, coho, sockeye, and Chinook salmon, respectively.** The overfishing exploitation rate (i.e., the fishing rate if continuously applied will deplete the stock) is also very high averaging 0.72, 0.74, 0.80, 0.81, and 0.83 for pink, chum, coho, sockeye, and Chinook salmon, respectively (Eggers and Clark in prep.)."[6]

The MSY exploitation rates shown above, in bold, are what the state is required to be achieving under the MSA and NS1. ADF&G is making no attempt to achieve those exploitation rates in the Cook Inlet salmon fishery. In 2002, ADF&G conducted a marine tagging project designed to estimate the total population size, escapement, and exploitation rates for coho, pink and chum salmon returning to Cook Inlet (Willette et al. 2003). This study estimated the harvest rate of pink salmon in the commercial fishery at about 0.02, the harvest rate of chum salmon in the commercial fishery at about 0.06, and the harvest rate of coho salmon in the commercial fishery at about 0.10 of the total run. (The harvest rate of coho was actually less than ten percent because the study ended before the Kenai coho run started.) The low harvest rates on these stocks are a direct result of restrictive management plans for the commercial fishery. We have not been allowed to harvest these abundant stocks.

In the current Discussion Paper, under "2.5.2 Alternative 2: Cooperative management with the State," the three tier method described is clearly designed to maintain the status quo in the exploitation rates of Cook Inlet salmon stocks. This is unacceptable to the stakeholders and, as described above, does not meet the requirement in NS1 that establishes maximum sustained yield as the basis for fishery management. Stakeholders on the Cook Inlet Salmon Committee have repeatedly explained that the three tier method that is used for the East Area in the Salmon FMP cannot be applied to the Cook Inlet salmon fishery. In Cook Inlet, except for Chinook stocks, all other stocks are intermingled spatially in one large stock complex with some temporal stratification.

In Cook Inlet Salmon Committee meetings, NMFS staff asserted that FMPs did not, and could not, address underfishing. It is clearly stated in the findings and the purpose of the MSA that FMPs are to develop fisheries on stocks that are underutilized. National Standard 1 requires that conservation and management measures "shall prevent overfishing while achieving, on a

[6] ADF&G, 2010. State of Alaska's Salmon Fisheries Management Program. Response to Council request (June 30, 2010.) Correspondence. Juneau, Alaska. Attachment. p.5

continuing basis, the optimum yield from each fishery for the United States fishing industry." **Achieving optimum yield on a continuing basis on salmon stocks requires setting escapement goals closely centered on MSY and managing for exploitation rates (Fmsy) to achieve those goals. MSY or OY cannot be achieved if either underfishing or overfishing occurs.**

Members of the Salmon Committee brought these discussion points repeatedly to the table at the Cook Inlet Salmon Committee meetings and were rebuffed or dismissed by the Salmon Working Group. The Council and NMFS can no longer continue operating under the assumption that state salmon management practices comply with MSA in the face of this glaring discrepancy between what the MSA requires, what MSY exploitation rates must be to achieve OY, and what is actually occurring in the fishery.

The Salmon Committee was also tasked with reinterpreting ACLs and reference points for the Cook Inlet salmon fishery. In 2010, the State and Council agreed on the methodology, including how to assess the stocks with escapement goals, and how to assess the stocks without escapement goals, using exploitation rates and catch-based reference points. When stakeholders brought this methodology forward at a Salmon Committee meeting it was dismissed.

The parameters for the OFL/ABC/ACL framework for a salmon FMP, that were already accepted by the Council, NMFS and the Secretary of Commerce with Amendment 12, were described in the State of Alaska's Salmon Fisheries Management Program in this excerpt:

> "NSl is implemented with the 2009 MSA Provisions; Annual Catch Limits; National Standards Guidelines; Final Rule, which specifies an OFL/ABC/ACL framework. A tier of reference points are defined: the overfishing limit (OFL) which corresponds with MSY; the acceptable biological catch (ABC) which cannot exceed the OFL; the annual catch limit (ACL); and the annual catch target (ACT). The difference between OFL and ABC depends on how scientific uncertainty is accounted for in the ABC control rule. The difference between ACL and ACT depends on management performance and uncertainty. For salmon, one can define reference points based on escapement, exploitation rate, or catch; however, catch based reference points and associated targets generally cannot be safely determined pre- season, and assessment of compliance can only be assessed post-season.
>
> For escapement-based reference points in the OFL/ABC/ACL framework,
>
> $$S_{OFL} < S_{ABC} = S_{MSY} \leq S_{ACL} < S_{ACT}$$
>
> For exploitation rate- and catch- based reference points,
>
> $$F_{OFL} > F_{ABC} = F_{MSY} \geq F_{ACL} > F_{ACT}$$
>
> $$C_{OFL} > C_{ABC} = C_{MSY} \geq C_{ACL} > C_{ACT}$$"[7]

[7] Ibid, p. 3

Some of these basic elements of Alaska's salmon management program, including the exploitation rates and conversions for escapement-based reference points and catch-based and exploitation rate-based management targets to fit in the OFL/ABC/ACL framework, are generally still applicable for this new amendment.

ADF&G is not currently following the salmon fisheries management program that they described in 2010 for any stock of salmon returning to Cook Inlet. They were not following their program in Cook Inlet in 2010 when they provided that information to the Council and NMFS. While some of Alaska's salmon management program may comply with the requirements and standards of the MSA, their management practices and escapement goals do not.

The Council and NMFS did not meet their obligation and responsibility during the development of Amendment 12 to confirm that the management program described by ADF&G was actually being implemented. No effort has been made since then to fulfill that requirement. All the problems with the goals and the management that we have described above would have been revealed years ago, if the Council had met the requirement of a post season SAFE report; instead it's been left to the stakeholders to bring this information forward.

The Council and NMFS must require and ensure, through diligent oversight, that all Cook Inlet salmon management plans, escapement goals, regulations, in-season management practices and post season SAFE reports are all designed and implemented to achieve what the MSA requires.

On May 7, 2020, President Trump signed an Executive Order titled "Executive Order on Promoting American Seafood Competitiveness and Economic Growth". Section 4 of that executive order is excerpted below.

> "Sec. 4. Removing Barriers to American Fishing. (a) The Secretary of Commerce shall request each Regional Fishery Management Council to submit within 180 days of the date of this order, a prioritized list of recommended actions to reduce burdens on domestic fishing and to increase production within 1 year of the date of this order."

Clearly, the Cook Inlet salmon fishery is not being managed for MSY. There is tremendous potential to increase production rapidly and sustainably in this fishery, it just requires the fishery to be managed to the higher level of standards that are already required under the MSA.

Sincerely,

Erik Huebsch, Vice President

CC: James Armstrong, NPFMC
Jeff Berger, Cook Inlet Processor Stakeholder
Forrest Bowers, ADF&G
Karla Bush, ADF&G
Doug Duncan, NOAA
Jordan Watson, NOAA
Diana Evans, NPFMC
Gretchen Harrington, NOAA
Georgie Heaverley, Cook Inlet Stakeholder
Hannah Heimbuch, Cook Inlet Stakeholder
John Jensen, NPFMC
Lauren Smoker, NOAA
Mike Downs, SSC
Marcus Hartley, Northern Economics

Attachment:1

Attachment 1: ADF&G, 2010. State of Alaska's Salmon Fisheries Management Program. Response to Council request (June 30, 2010.) Correspondence. Juneau, Alaska. Attachment

State of Alaska's Salmon Fisheries Management Program

Introduction

The Fishery Management Plan (FMP) for salmon fisheries in the Exclusive Economic Zone (EEZ) off Alaska's coast defers salmon management to the State of Alaska. Compliance with the Magnuson - Stevens Fishery Conservation and Management Act (MSA) and National Standards (NS) guidelines requires the Regional Management Councils, with some exceptions, to establish a mechanism for specifying annual catch limits (ACLs) and accountability measures (AMs) to prevent overfishing of stocks that are covered under the FMP (MSA § 303(a)(15); 16 U.S.C. §1853(a)(l5)). The North Pacific Fishery Management Council (Council) has requested the assistance of Alaska Department of Fish and Game (ADF&G) in evaluating the State of Alaska's salmon management program with regard to the requirements of the MSA. This document describes how the State of Alaska salmon management system is a successful and appropriate system for meeting MSA requirements to prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

The Council generally applies catch quota based fishery management systems for managing groundfish fisheries in the EEZ off Alaska. Annual catch quotas, often allocated among different users, are specified for each stock. The quota is based on the assessment of the stock biomass and the application of a suitable exploitation rate. Stock Assessment and Fishery Evaluation (SAFE) documents, which detail stock assessment and final acceptable biological catch (ABC) recommendations, are prepared in the year prior to the fishing season using stock assessment data collected as recently as the year prior to the fishery. However, proposed ABC recommendations are made for one and two years prior to the fishery based on data gathered up to two or three years before the fishery is conducted. This minimum 2-year lag between data acquisition and the years for the proposed recommendations allows suitable time for the lengthy public and government review process required under Federal law. The final ABC recommendations are very often close to the proposed ABCs, which require 2-year population projections. This is generally appropriate because groundfish fisheries under Council jurisdiction primarily occur on long-lived stocks where new recruits are not a significant component of the stock biomass, and projection models tend to use consistent growth and natural mortality rates. Because projections are reasonably accurate and quotas are small compared to the stock biomass, there is little risk of overfishing imposed by erroneous projection of stock assessment information; an inherent risk in relying on early projections to establish catch quotas. Furthermore, groundfish stocks are iteroparous, so management can adapt over time with conservation action taken in a subsequent year to increase the productive biomass and increase the allowable catch to respond to overly conservative management thereby minimizing foregone harvest.

Alaska salmon fisheries pose a different case because

1) unlike ground fish stocks salmon are semelparous reproducing once in the life cycle;

2) the harvestable surplus is entirely new recruits and catch is almost exclusively comprised of mature salmon;
3) the productivity of a specific year class cannot be improved by limiting harvest in subsequent years;
4) foregone harvest cannot be recaptured in future years; and
5) since abundance cannot be estimated effectively in advance, in-season estimations of abundance using contemporary data with appropriate management actions taken to assure escapement and optimum production in future years is the most effective way to avoid the risk of overfishing.

Alaskan salmon fisheries are managed by allowing fishing in specific times and areas. With the exception of Chinook salmon in the Southeast Alaska troll fishery, Alaska salmon fisheries generally occur on maturing fish in areas terminal or near-terminal to natal spawning systems, where fish are concentrated and highly vulnerable. Although salmon are vulnerable to fishing for only a short time, run timing is consistent and predictable from year to year. Salmon are relatively short-lived and highly productive, with sustainable catch levels large relative to the spawning stock. Because salmon run sizes are highly variable and unpredictable, specifying a catch quota based on pre-season abundance forecasts is a much inferior approach to salmon management than actively managing for monitored in-season abundance.

During the federal management era prior to Alaska statehood, salmon fisheries were largely managed by fishing schedules and fishing areas defined in regulation pre-season. There were provisions for in-season adjustments, but these were ineffective and rarely implemented due to the need for secretarial review and lack of in-season assessment information. By the time in-season adjustments were implemented it was too late for effective conservation measures. The inability to curtail fishing during weak runs and extended periods of poor productivity led to the depletion of Alaskan salmon stocks at the time of Alaska statehood. With the exception of the Southeast Alaska troll fishery and the Area M June net fisheries, catch quota based fishery management systems have never been used in State management of Alaska salmon fisheries (catch quotas were abandoned for the Area M June fishery in about 2003). These two fisheries occur on distant stocks with catch quotas comprising a relatively small portion of the overall stock.

In the State fishery management era, the vast majority of salmon may be taken only in fishing periods established in-season by emergency order. Fishing is allowed to continue only if in-season assessment of run strength indicates harvestable surpluses. The level of fishing time allowed depends on the strength of the in-season run. Authority to open and close fisheries is delegated to local area managers by the Commissioner of Fish and Game. This enables timely and effective fishery management responses to in-season information. Under State management, stock assessments are focused on obtaining escapement estimates for stocks targeted in fisheries. At the time of statehood, escapement data were available only for Bristol Bay sockeye salmon, a few Kodiak sockeye systems, Chignik sockeye, and aerial surveys were utilized to assess pink salmon escapement in coastal areas throughout the Gulf of Alaska. Escapement enumeration programs have since been greatly expanded, with direct or appropriate indicator stock monitoring of escapements for most sockeye, Chinook, and pink salmon stocks targeted in Alaska salmon fisheries, as well as important chum salmon stocks in Arctic-Yukon-Kuskokwim (AYK) region. This management and stock assessment framework addresses the principal overfishing risk in managing salmon fisheries: allowing intense fishing during weak runs. Because occasional weak runs are inevitable, timely and accurate

assessment of run strength avoids overfishing by implementing conservative fishing schedules conditioned on in-season abundance.

A fishery management system based on strict catch quotas and associated ACLs and AMs, implicit in the NS implementation, would be problematic for Alaska salmon fisheries. ACLs are inconsistent with the State's salmon fisheries management system which has a long-term, successful history of avoiding overfishing. Their implementation would not be beneficial for meeting the goals and requirements of MSA to prevent overfishing.

National Standards Guidelines

National Standards 1 (NS1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that conservation and management measures "shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry."

Overfishing occurs whenever a stock or stock complex is subjected to a level of fishing mortality that jeopardizes the capacity of the stock or stock complex to produce maximum sustained yield (MSY) on a continuing basis. The MSA establishes MSY as the basis for fisheries management and requires that fishing mortality does not jeopardize the capacity of a fishery to produce MSY.

NSl is implemented with the 2009 MSA Provisions; Annual Catch Limits; National Standards Guidelines; Final Rule, which specifies an OFL/ABC/ACL framework. A tier of reference points are defined: the overfishing limit (OFL) which corresponds with MSY; the acceptable biological catch (ABC) which cannot exceed the OFL; the annual catch limit (ACL); and the annual catch target (ACT). The difference between OFL and ABC depends on how scientific uncertainty is accounted for in the ABC control rule. The difference between ACL and ACT depends on management performance and uncertainty. For salmon, one can define reference points based on escapement, exploitation rate, or catch; however, catch based reference points and associated targets generally cannot be safely determined pre- season, and assessment of compliance can only be assessed post-season.

For escapement based reference points in the OFL/ABC/ACL framework,

$$S_{OFL} < S_{ABC} = S_{MSY} \leq S_{ACL} < S_{ACT}$$

For exploitation rate- and catch- based reference points,

$$F_{OFL} > F_{ABC} = F_{MSY} \geq F_{ACL} > F_{ACT}$$

$$C_{OFL} > C_{ABC} = C_{MSY} \geq C_{ACL} > C_{ACT}$$

NSl requires that each FMP specify objective and measurable criteria (status determination criteria - SDC) for identifying when stocks or stock complexes covered by the FMP are overfished. The guidelines for NS1 specify that status determination criteria must specify both a maximum fishing mortality threshold (MFMT) and a minimum stock size threshold (MSST).

The fishing mortality threshold cannot exceed the MFMT or level associated with the MSY control rule. Exceeding MFMT for a period of 1 year constitutes overfishing. The MSST should be expressed in terms of spawning biomass or other measure of productive capacity, and should equal whichever of the following is the greater; one-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years. If the spawning stock size falls below the threshold for a year, the stock complex is considered overfished.

Due to their unique life history, implementation of the SDC as outlined in NS1 is problematic for salmon. Salmon are semelparous, short-lived (2-7 years), and generally vulnerable to exploitation only during their spawning migration (except immature salmon are vulnerable to some extent as bycatch in groundfish fisheries and immature Chinook salmon are targeted in ocean troll salmon fisheries). Thus, depending on maturity schedules, only a small to moderate fraction of the stock is vulnerable to fishing in a given return year. The inter-annual abundance of salmon spawning populations is typically highly variable, due to variable year-class strength and variable maturation schedules, and fishing mortality rates are expressed as a fraction of the spawning stock. This is very different than fishing mortality rates on long-lived iteroparous populations, where all fully recruited age classes are considered vulnerable to fishing. Status determinations for salmon must account for multiple return years from a single brood.

There are also difficult problems with implementation of an exploitation rate or catch based OFL/ABC/ACL/ACT framework for salmon. Alaskan salmon fisheries are generally managed under a constant escapement harvest policy where exploitation rates and catch fluctuate with variation in salmon run strength, with escapement targets fixed in time. The MSY control rules for salmon fisheries are more safely implemented by targeting management actions to achieve a target escapement level rather than a target fishing mortality rate or a target catch level. It is possible to determine catch- based and exploitation rate- based management targets for salmon on a post season basis. Here $F_{MSY} = (1\text{-}S_{MSY}/R)$ and $C_{MSY} = F_{MSY} R$. Because salmon runs are highly variable and impossible to accurately forecast, catch based management targets would be very risky and routinely result in over-harvest in the commonly encountered situation of an unanticipated weak run. Catch based MSY control rules are not appropriate for salmon fisheries. MSY exploitation rates on salmon are, on average, very high relative to those for iteroparous populations. With the highly variable and unpredictable nature of salmon spawning abundance, it is very difficult and risky to implement a fixed MSY exploitation rate harvest policy. ACLs and associated ACTs as described in NS1, clearly focus on a catch based management system. Because of high risk associated with catch-based management targets, which are based on inherently inaccurate pre-season forecasts of salmon runs, these approaches are inferior to escapement based management for avoiding overfishing of salmon stocks.

Salmon Stock Assessment and Management

For salmon, maximum sustained yield is achieved by fishing appropriately to maintain the spawning escapement at levels that provide potential to maximize surplus production. Salmon populations

exhibit compensatory and density dependent stock recruitment dynamics, driven by intra-specific competition for limited spawning and rearing habitat. In salmon populations, sustained yield is driven by increased production in response to fishing induced reductions in spawning escapement and concomitant increased survival accompanying decreased competition. Sustained yield in iteroparous populations is driven by fishing induced increased growth in biomass over biomass lost to natural maturity (i.e., yield per recruit). This concept has no relevance for salmon since the vast majority of fish are harvested at the end of their life.

Biological reference points for salmon populations are estimated based on long-term, stock specific assessment of recruits from parent escapement or long-term assessment of escapement. Estimating biological reference points for salmon populations requires direct assessment of the spawning stock. Biological reference points for iteroparous populations can and usually are estimated without direct stock- recruit assessment data. The salmon stock assessment programs employed by ADF&G are designed to monitor stock and age-specific catch and escapements. The program employs comprehensive sampling of catch and escapements by age; comprehensive escapement monitoring using tower counts, weir counts, sonar counts, mark-recapture experiments, aerial counts, and foot counts; and routine monitoring and stock identification of catch using a variety of methods including, genetic stock identification (GSI) , coded wire tags , and otolith marks. These data enable the current season run (i.e., catch plus escapement) to be assigned to prior brood years (i.e., the return from stock specific parent escapement). Comprehensive implementation of the ADF&G salmon stock assessment programs, over time, provides stock- recruit data necessary for developing MSY based escapement goals. Since the catch and escapement monitoring programs are conducted in real-time, they provide in-season assessments of run strength necessary for managers to implement ADF&G's escapement based harvest polices. In fisheries, where escapement monitoring occurs distant from the fishery, test fisheries are employed to provide more real-time assessment.

The compensatory nature of salmon population dynamics is reflected in the Ricker stock recruit model (Figure 1). Appropriate biological reference points used as benchmarks in status determinations, and in setting escapement goals can be determined from the Ricker model parameters estimated by fitting the Ricker model to historical stock-recruit data (Ricker 1954). These include α, the productivity of the stock and the overfishing harvest rate ($U_{of} = 1- 1/\alpha$); the equilibrium escapement (S_{eq}); MSY escapement (Smsy), (typically between .35 and .45 of the equilibrium escapement), and the MSY harvest rate (Umsy). Escapement goals are typically set at the range of escapements that provides 90% or more of MSY. The approach of using the fitted Ricker stock-recruit model to set escapement goals is routinely used by ADF&G for stocks where stock specific runs can be estimated and there is sufficient contrast in the historical escapement data to reflect density dependence.

Biological reference points estimated for many salmon stocks demonstrate that salmon populations are extremely productive, with the limit return per spawner (α) averaging 3.7, 4.0, 3.7, 6.0, and 6.9 for pink, chum, coho, sockeye, and Chinook salmon, respectively. MSY exploitation rates (i.e., the average harvest rates employed to maintain constant escapement in the escapement goal range) are high, averaging 0.53, 0.56, 0.63, 0.65, and 0.68 for pink, chum, coho, sockeye, and Chinook salmon, respectively. The overfishing exploitation rate (i.e., the fishing rate if continuously applied will

deplete the stock) is also very high averaging 0.72, 0.74, 0.80, 0.81, and 0.83 for pink, chum, coho, sockeye, and Chinook salmon, respectively (Eggers and Clark in prep.).

Currently ADF&G has established 290 escapement goals (72 Chinook salmon stocks, 70 chum salmon stocks, 29 coho salmon stocks, 41 pink salmon stocks, and 78 sockeye salmon stocks) for stocks where escapements are routinely monitored (Munro and Volk 2010). Escapement goals have been established for target stocks in every salmon fishery that ADF&G manages. A variety of methods are used to estimate escapement goals. Most methods directly estimate MSY escapement range from stock productivity data as well as rearing and spawning habitat considerations. In the absence of stock-recruit information, many escapement goals are set based on the percentile method (Bue and Hasbrouck, (unpublished). **[Note – not only was this paper unpublished, it was not peer reviewed and should not be used because the upper tier recommended escapement goals that exceeded the carrying capacity of the habitat and were found to be unsustainable.]** For stocks with high contrast in historical escapement data, the escapement goal is the central 50 percentile range of historical escapements and for stocks with low contrast or low harvest rates, the escapement goal is the central 85 percentile of historical escapements. Eggers and Clark (in prep) show that the percentile method provides a reasonable and conservative proxy for MSY escapement goal ranges. Computer simulations demonstrate that results from the percentile method are virtually equal to the actual MSY escapement range (Eggers and Clark in prep.) if the stock is exploited in a manner that provides MSY (Figure 2). The simulations also demonstrate that the 25 percentile of historical escapements is well above the lower bound of the MSY escapement goal range, except for situations where the stock is heavily exploited above the level that provides for MSY (Figure 2). For situations where the stock is exploited below MSY levels, the percentile method estimates escapements above the MSY escapement range (Figure 2).

A meta-analysis of stock-recruit data from ADF&G salmon stocks (42 sockeye salmon stocks, 7 Chinook salmon stocks, 5 coho salmon stocks, 6 chum salmon stocks, and 7 pink salmon stocks) demonstrates that escapement goals estimated by applying the percentile method were consistent with or above MSY escapement ranges as well as the established ADF&G goals for stocks where the MSY escapement goal was estimable (Eggers and Clark in prep). There were several sockeye salmon stocks where the percentile method escapement goals appeared less conservative than the meta-analysis MSYs or the ADF&G established escapement goals. In these cases, there was a demonstrated lack of density dependence in the stock recruit data which precluded a statistically significant estimate of the MSY escapement level. In these cases, escapement goals were established based on yield analyses with escapement goals based on consistent and high levels of yield. The fact that the central 50 percentile escapement ranges were above the MSY escapement range for most stocks demonstrates that salmon are generally exploited below MSY. Fishing is constrained during weak runs and available surpluses with strong runs are rarely achieved due to conservative fishery management, market constraints, or limited fishing power.

State of Alaska's Salmon Status Determination

The State of Alaska stock assessment and fishery management system, as embodied in the *Escapement Goal Policy* (EGP, 5 AAC39.223) and *Policy for the Management of Sustainable*

Salmon Fisheries (PMSSF, 5 AAC 39.222) is consistent with NSl. Escapement goals are based on direct assessments of MSY escapement level (S_{msy}) from stock recruit analysis (i.e., BEG) or a reasonable proxy (i.e., SEG) (c.f. Munro and Volk, 2010). Escapement goals are specified as a range or a lower bound threshold. In general, escapement goal ranges produce 90% of MSY, and escapements are considered neutral within the range. Because yield is relatively flat across escapements that constitute an escapement goal range, these ranges give managers the flexibility to moderate fishing to protect stocks of weak runs that are commonly exploited in mixed stock fisheries.

Alaska's salmon fisheries are managed to maintain escapement within levels that provide for MSY (S_{msy}), escapements are assessed on an annual basis, all appropriate reference points are couched in terms of escapement level, and status determinations are made based on the stock's level of escapements. Three levels of concern are defined in the PMSSF-yield, management, and conservation. The level of concern relevant to status determination is the management concern. A management concern results from a continuing or anticipated inability to maintain escapements within the escapement goal range or above the threshold. Thus, the lower range or threshold of escapement goals is consistent with NS1 minimum stock size threshold and a determination of a management concern is equivalent to a determination of an overfished state in NS1. Overfishing is defined in the PMSSF as a level of fishing that results in a management or conservation concern. With the determination of a management concern, ADF&G and the Board of Fisheries are required to develop an action plan to address the concern. This may include measures to restore and protect salmon habitat, identification of salmon stock rebuilding goals and objectives, implementation of specific management actions needed to achieve rebuilding goals and objectives, and development of performance measures appropriate for monitoring and gauging the effectiveness of the action plan.

ADF&G reviews salmon escapement goals and stock status for each salmon management area on a 3-year cycle, which is consistent with Board of Fisheries cycle of regulatory review of salmon fisheries by management area. Escapement goal and stock status reviews are prepared prior to the Board of Fisheries review. These documents for Southeast Alaska include DerHovanisian et al (2005), Eggers and Heinl (2008), Heinl et al (2008), Eggers et al. (2008), McPherson et al. (2008), Shaul et al.(2008); Prince William Sound includes Evenson et al. (2005) , Lower Cook Inlet includes Otis and Szarzi (2007), Upper Cook Inlet includes Bue and Hasbrouck (2001), Fair et al. (2007), Kodiak includes Nelson et al (2005), Chignik includes Witteveen et al. (2007), Alaska Peninsula includes.Nelson et al. (2006), Bristol Bay includes Baker et al., (2005), and the Arctic-Yukon-Kuskokwim Region includes Brannian et al. (2007) and Molyneux and Brannian (2006).

November 4, 2020

Alaska Board of Fisheries and North Pacific Fishery Management Council:
Joint Protocol Committee
Re: Cook Inlet Salmon

Members of the Joint Protocol Committee:

I am a Cook Inlet drift fisherman from Homer, Alaska. My family has fished Cook Inlet for three generations, and I am one of five family members that are owner-operators in the Cook Inlet Drift salmon fishery. Thank you for this opportunity to comment on the Cook Inlet Salmon FMP Amendment, in the context of your committee discussion.

As a commercial fisherman, in addition to Cook Inlet, I have fished salmon and halibut in Bristol Bay, Area M, Kodiak and Prince William Sound. As a fisheries advocate I have worked on a variety of issues spanning the Council and state management arenas. When I comment on Cook Inlet management, I do so through the lens of someone dedicated to the long-term health of Alaska's fishing communities, its fishery resources, and the public processes that govern their management.

I believe fundamentally in Alaska's leading role in that management, and more specifically in its right and responsibility to manage the entirety of this state's robust and diverse salmon fisheries for the benefit of all of its diverse users. Considering that constitutional responsibility, and considering the requirements laid out in both Magnuson and the court ruling impacting this issue, I believe the only path forward is Alternative 2, collaborative state and federal management.

It should be noted that both Alternative 2 and Alternative 3 pose challenges in the form of additional regulatory functions that would require time and resources to execute. This is of course true of any fishery management program, and something we will need to work through collaboratively to make more cooperative and less burdensome — much like the state has done with crab and scallops. As the analysis points out, Alaska is far better equipped to carry out management of the full salmon fishery. Alternative 2 very clearly provides a more functional route to maintaining fishing opportunity, managing the species throughout its range, and maintaining Alaska's essential role in salmon management.

In the case of Alternative 3, which I strongly oppose, I am very concerned that the inherent challenges of federal-only management are likely to result in the partial or full closure of fishing in the EEZ, which is an essential part of the fishery. NMFS clearly lacks the infrastructure and expertise to manage a salmon fishery in Alaska at this time. Not only would that be devastating for the thousands of fishermen, fishing families and support businesses operating in Cook Inlet, but this precedent would be troubling for any salmon fishermen whose traditional fishing areas span both state and federal waters. The statewide implications of and concerns around such a decision should not be underestimated.

Recently added Alternative 4, which *intentionally* closes the EEZ waters to commercial fishing, certainly guarantees substantial harm to fishermen and coastal economies through

the loss of those traditional fishing grounds. This loss would be particularly felt in Homer, as EEZ closure would transfer the majority of fishing to the more northern areas. Homer would see a drastic decline in port deliveries, vessel moorage and many other associated economic drivers. Closure is an unacceptable outcome for communities that rely upon these fisheries and the revenue they generate. It is also unreasonable to put this option on the table at this late stage of development, particularly considering the severity of the impacts it poses. This is a sharp departure from the focus of the past two years, which has been on Alternative 2.

Alaska has long been committed to managing its salmon resources, and does so for the benefit of our coastal economies, cultures and food systems — of which Cook Inlet commercial fishing businesses are an integral part. State and federal laws require us to manage these resources for economic, cultural and ecological vitality. Options that eliminate EEZ fishing opportunities do not accomplish that, and would decimate an already struggling commercial fishery. Recognizing that risk, it is vital that we choose a path forward that leads to a functioning fishery and a public process that can incorporate both state and federal waters. That path is Alternative 2.

It is impossible to ignore that part of the challenge of finding a path forward in this issue is the deeply contentious history between user groups who rely upon Cook Inlet. The political and allocative tensions in Cook Inlet are exhausting and often counter productive. That being said, we must remain collectively dedicated to improving our public processes and public discourse. Alaska and the Council, together, must be a leader in that positive change.

Should state management of this important salmon fishery be abandoned in favor of federal management or outright closure, it eliminates the ability for the fishing families of Cook Inlet — primarily Alaska residents — to work within the state process alongside our fellow fishermen on issues impacting the historic fishing areas in the central Inlet. Current and future generations of Alaskans deserve the opportunity to continue working with state leaders and scientists toward the best possible management for *all* participants, in *all* of Cook Inlet's traditional fishing areas.

Thank you for this opportunity to comment.

Regards,
Hannah Heimbuch
.

November 3, 2020

North Pacific Fishery Management Council
Alaska Board of Fish
605 W. 4th Avenue, Suite 306
Anchorage, Ak. 99501-2252

Re: Revisions to the Fishery Management Plan for the Salmon Fisheries in the EEZ off the Coast of Alaska, November 2020.

Dear Council Members and Board of Fisheries,

My name is Jeff Fox. I have worked for nearly 30 years for the Alaska Department of Fish and Game (ADFG) in managing commercial fisheries, retiring in 2011. In the 21 years in Soldotna managing the commercial fishery I feel I gained a good understanding of the fishery and what is necessary to effectively manage the fishery to achieve the objectives of MSA in achieving optimum yield from the salmon stocks in this area. Your agenda for this meeting states:

"Salmon fishery management in the EEZ of Cook Inlet The Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska (FMP) manages the salmon fisheries in the United States Exclusive Economic Zone (EEZ; 3 nautical miles to 200 nautical miles offshore) off Alaska. In 2012, the Council comprehensively revised the FMP to comply with the recent Magnuson-Stevens Act requirements, such as annual catch limits and accountability measures, and to more clearly reflect the Council's policy with regard to State of Alaska management authority for commercial and sport salmon fisheries in the EEZ. Now, in response to a United States Court of Appeals Ninth Circuit ruling, the Council is considering how to revise the FMP to manage the commercial salmon fishery that occurs in the EEZ waters of Cook Inlet that had been removed from Federal management with the 2012 revisions to the FMP. The Council is considering new management measures that comply with Magnuson-Stevens Act requirements for the Cook Inlet commercial salmon fishery in the EEZ, such as status determination criteria, annual catch limits, and accountability measures. Alternatives include Federal management with or without delegation of management to the State of Alaska. The Council will take final action on this issue at its December 2020 meeting". Ironically this agenda fails to even mention your newest alternative, Alternative 4 which closes the EEZ. Additionally there are at least 3 misstatements in this agenda, first if the Council had *"comprehensively revised the FMP to comply with the recent Magnuson-Stevens Act requirements"* we would not still be discussing it today, second none of the *"new management measures"* under consideration comply with MSA as stated and third the council isn't just talking about delegating or not delegating the management of the EEZ

to the State of Alaska, it is surrendering all authority for the entire fishery to the state which the court has already stated you can not do. It is ironic that this comprehensive revision of the Fisheries Management Plan does not have a single management action in it, well unless you close the EEZ under option 4.

After working thru the Salmon Committee process for the last three years to create an FMP that complies with MSA and the Courts ruling, the State of Alaska, has now put forth an option (option 4) which closes the EEZ area after any chance to comment is over. While this is not surprising given the state's objectives under this administration to create an exclusive sport fishery in Cook Inlet, if accepted by the Council it will be necessary to have an emergency Board of Fisheries meeting to try and alter plans to accommodate for the closure of the EEZ. It will be quite contentious and will lead to regulations that can not provide for fisheries that harvest salmon surpluses as required under MSA. It will not be legal nor will it allow for the management of the fisheries to meet escapement goals or optimum yield no matter how you define it under either state regulations or under MSA. Since 1990 in each and every Board of Fisheries meeting and in several court cases, the State and ADF&G has always held that they could not manage the Cook Inlet Commercial fishery without the drift fishery fishing in the entire Central District. Now with a Commissioner (Minnie Trump) who has never successfully managed a fishery and that ignores all staff input we see a complete reversal of this long held fact.

The drift fishery fishing in the entire Central District is the only tool available to be used in conjunction with the Upper Cook Inlet Test Fishery to predict what size of sockeye, coho, pink and chum return is occurring prior to July 20-25. Secondly closing the drift fishery in the EEZ eliminates approximately 90 percent of their catch on any given fishing period. In order to make up for this "lost harvest" the drift fishery would

need to fish many additional periods (9X) in the area known as the Kenai and Kasilof sections and Area 2, which will cause much displeasure from other user groups. Lastly there are not enough days in July and August, (the entire salmon run) to fish in this restricted area to make up for the lost harvest and achieve escapement goals, especially since the state is closing much of this area each season due to Kenai River Chinook mismanagement, which has been occurring each year since 2012. In 2012 a disaster under MSA was declared and accepted without any review from the Council or NMFS to ascertain what was causing this problem. This problem with Chinook is still occurring with closures and restrictions to the set net fishery each year.

Another reason the EEZ is necessary is it utilization spreads the harvest over time and allows the processing sector to process the fish without a serious glut of fish arriving at the dock all at once and overwhelming the plants. By fishing in a fairly consistent pattern you keep the fish moving up the inlet to their stream of origin rather than allowing them to school up somewhere in the inlet and charging to the rivers in unmanageable numbers. Also there are 1,374 discreet salmon stocks returning to 110 first order rivers and streams in the inlet, by closing the EEZ you will be restricting the harvest to the vast majority of these streams to levels too low to achieve Optimum Yield as required by MSA. How many fish are in the runs that we are talking about, 200,000-300,000 Chinook, 3-5 million sockeye, 2-20 million pinks, 1 to 2 million chum salmon an up to 2 million coho. This is not an insignificant fishery as the state's caviler attitude would imply. I would also like to refer you to the many comments I have made in the past 3 years regarding ADF&G's escapement goals which you failed to review, but do not comply with MSA standards.

Table 1. Total number of anadromous streams by species and district in Upper Cook Inlet.

	Northern District					
	Chinook	Sockeye	Coho	Pink	Chum	Total
First Order	36	28	60	42	23	61
Total	361	261	809	183	136	1,001

	Central District					
	Chinook	Sockeye	Coho	Pink	Chum	Total
First Order	10	15	39	14	20	49
Total	84	133	281	39	31	373

	Upper Cook Inlet Area					
	Chinook	Sockeye	Coho	Pink	Chum	Total
First Order	46	43	99	56	43	110
Total	445	394	1,090	222	167	1,374

First order stream starts at salt water

Jeff Fox
CIFF/UCIDA
11/04/2020 03:37 PM AKST

RE: Tech set up, Introductions, Agenda review

I would like to testify

John McCombs
Cook Inlet Fishermens Fund
11/04/2020 01:42 PM AKST

RE: Tech set up, Introductions, Agenda review

Want to testify

Joint BOF/NPFMC – CIFF Sockeye Salmon Economic Disaster – Steve/John/Teague

Talking Points

Upper Cook Inlet Salmon Stocks Must Be Managed as a Fishery

- Review Economic Disaster Declaration
- Last Drift Fishing Day in Area 1: July 13, 2020
- Last Drift Fishing Day in Expanded Corridors: August 14, 2020
- Kenai River Escapement is Over 1.83 million at River Mile 19.5
- Counter Pulled August 24, 2020 – Over 140,000 Fish Counted the Last 5 Days Before Removal
- No Extra Fishing Periods
- Drift Fleet Total Harvest was 283,000 Sockeye
- Drift Fleet Sockeye Harvest have a 4.8 lb. Average Weight
- State is Unwilling to Harvest Available Salmon
- Kenai Peninsula Borough Also Passed a Disaster Resolution
- CIFF Sockeye Salmon Disaster Declaration Request attached, a similar request was sent to the Secretary of Commerce

COOK INLET FISHERMAN'S FUND

Non-Profit Advocate for all Commercial Gear Types in Area H
PO Box 39408 / Ninilchik, AK 99639 / Phone 907-252-2752 / Fax 907- 567-3306

Date: October 3, 2020

Addressee: Mike Dunleavy, Governor
State of Alaska
P.O. Box 110001
Juneau, AK 99811-0001

Re: 2020 Sockeye Salmon Economic Disaster Declaration

The Cook Inlet Fisherman's Fund (CIFF), as per the Alaska State Statutes, brings forward Resolution 2020-019 and statement of findings declaring an economic disaster for the Upper Cook Inlet (UCI) East Side Set Net (ESSN)/Drift Gillnet (Drift) sockeye salmon fisheries. CIFF also requests Governor Dunleavy declares an economic disaster for the UCI ESSN/Drift sockeye salmon fisheries and provides a supporting recovery plan.

The economic value of the 2020 ESSN harvest was 83.8% less than the previous 10-year average. See Attachments 1 and 2.

The economic value of the 2020 Drift harvest was 88% less than the previous 10-year average. See Attachments 4 and 5

The 2020 UCI combined ESSN/Drift sockeye salmon harvests of 562,821 directly resulted in an economic disaster. The State's management of the UCI salmon fishery limited the harvest opportunities in both time and area. Historically, harvest opportunities in the Cook Inlet commercial fishery closed on

December 31. However, now, under the current management regime, beginning July 23 the ESSN fishery closed and beginning July 16 the Drift fishery was restricted while many salmon stocks were continuing to enter into the Cook Inlet salmon fishery area.

The ESSN salmon harvest data from 1985-2020 is attached for reference, see Attachment 1. The 2020 harvest of 279,049 sockeye was one of the smallest since 1960. Average weight per fish has dropped alarmingly. In 2020, the sockeye salmon had the smallest weight at age since 1970. As a result, ex-vessel and first wholesale values dropped and the net production of meals from the fishery was reduced. See Attachments 2 and 5.

CIFF requests directly from you, Governor Dunleavy, an economic disaster declaration for the 2020 Upper Cook Inlet ESSN/Drift sockeye salmon season under appropriate State statutes.

CIFF is prepared to discuss and answer questions concerning this disaster request and looks forward to achieving the economic disaster declaration from your office and we will cooperate with you and your officials, the Alaska Legislature, the Department of Commerce, Congress and the Kenai Peninsula Borough (KPB) to obtain adequate appropriations.

Cook Inlet Fisherman's Fund
Resolution 2020-019

WHEREAS, CIFF is a duly registered, fishing community association legally recognized by the State of Alaska and the Federal Government; and

WHEREAS, CIFF is registered as a 501(c)(6) Domestic Nonprofit Corporation with the Federal Government; and

WHEREAS, CIFF is a professional commercial salmon trade association; the Board of Directors are elected by participants of the fishery; and

WHEREAS, CIFF provides for the wholesale or retail marketing, sale, delivery, distribution, or processing of salmon and its by-products, caught in all waters of and adjacent to the Pacific Ocean; including the negotiation of wholesale

and/or retail prices, contracts, sale's agreements, distribution, processing, marketing, custom processing, agency, brokerage, and shipping agreements and contracts for its members; and

WHEREAS, CIFF does research, obtains grants, and makes studies for the enhancement, rehabilitation and marketing of commercially caught salmon and makes proposals and lobbies for legislation and regulations to promote and better the commercial salmon industry; and

WHEREAS, CIFF participates in legal actions determined by the Board of Directors to be in the best interest of the commercial fishing community; and

WHEREAS, CIFF members own several hundred vessels and skiffs that are directly used in the harvesting of salmon and other fish stocks, and members primarily reside in Alaska; and

WHEREAS, CIFF members have invested tens of millions of dollars in vessels, skiffs, limited access fishing privileges, setnet fishing sights, gear shops and sheds, homes, docks, vehicles, nets, gear and equipment; and

WHEREAS, the 2020 lost economic value of the ESSN fishery was 83.8%, the lost economic value of the Drift fishery was 88%; and

WHEREAS, during 2020, the majority of the Kenai River Late-Run Sockeye Salmon returned during the month of August; and

WHEREAS, the ESSN/Drift fishermen were, by regulation, prevented from harvesting sockeye salmon during the historical time of year and from traditional areas as they migrate into UCI; and

WHEREAS, State regulators have abandoned abundance-based management practices in favor of highly prescriptive-based management practices causing insufficient fishing opportunity and resulting in economic disasters, reduced food supply, economies and future salmon returns; and

WHEREAS, this extremely low harvest was below the level necessary to cover the cost of operating and maintaining the commercial ESSN/Drift fishermen, processing and marketing businesses in the Kenai Peninsula Borough; and

WHEREAS, CIFF sent or received letters of support involving Copper River Seafoods, Cook Inlet Aquaculture Association, the Kenai Peninsula Borough Mayor and Assembly and the Kenai Peninsula Economic Development District urging CIFF and others to request the Secretary of Commerce to declare an economic disaster for the 2020 Upper Cook Inlet ESSN/Drift sockeye salmon commercial fisheries.

NOW, THEREFORE, BE IT RESOLVED BY THE CIFF BOARD OF DIRECTORS:

SECTION 1. That CIFF, an elected regional fishing community, declares an economic disaster exists among the commercial ESSN/Drift fishing communities as a result of the 2020 UCI sockeye salmon fishery.

SECTION 2. That the CIFF Board of Directors respectfully request the State of Alaska declares an economic disaster for the 2020 UCI commercial ESSN/Drift sockeye salmon fisheries.

SECTION 3. CIFF respectfully requests the Secretary of Commerce declares an economic disaster, as provided for in MSA and the IFA, and implement a recovery plan that provides private and public assistance and takes other actions to benefit the commercial ESSN/Drift fishery participants and others that rely on this important fishery resource.

SECTION 4. CIFF requests that copies of each economic disaster resolution be provided to the Kenai Peninsula Borough Assembly and Mayor, the Governor of Alaska as well as other affected parties.

SECTION 5. That this resolution becomes effective immediately upon its adoption.

ADOPTED BY THE CIFF BOARD OF DIRECTORS THIS 3RD DAY OF OCTOBER 2020.

Sincerely,

Original Signed Document

John McCombs, President
Cook Inlet Fisherman's Fund

cc: State Director USDA Rural Development Jerry Ward
US Senator Lisa Murkowski
US Senator Dan Sullivan
US Senator Maria Cantwell
US Representative Don Young
AK Senator Peter Micciche
AK Senator Gary Stevens
AK House Speaker Bryce Edgmon
AK Representative Sarah Vance
AK Representative Ben Carpenter
AK Representative Louise Stutes
AK Representative Jonathan Kreiss-Tomkins
Kenai Peninsula Borough Mayor Charlie Pierce
Kenai Peninsula Borough Assembly
Kenai City Mayor Brian Gabriel
Homer City Mayor Ken Castner
Soldotna City Mayor Peter Sprague
Kenai Peninsula Economic Development District
Cook Inlet Aquaculture Association
Cook Inlet Processors:
Pacific Star Seafoods
Copper River Seafoods
OBI Seafoods, Inc.

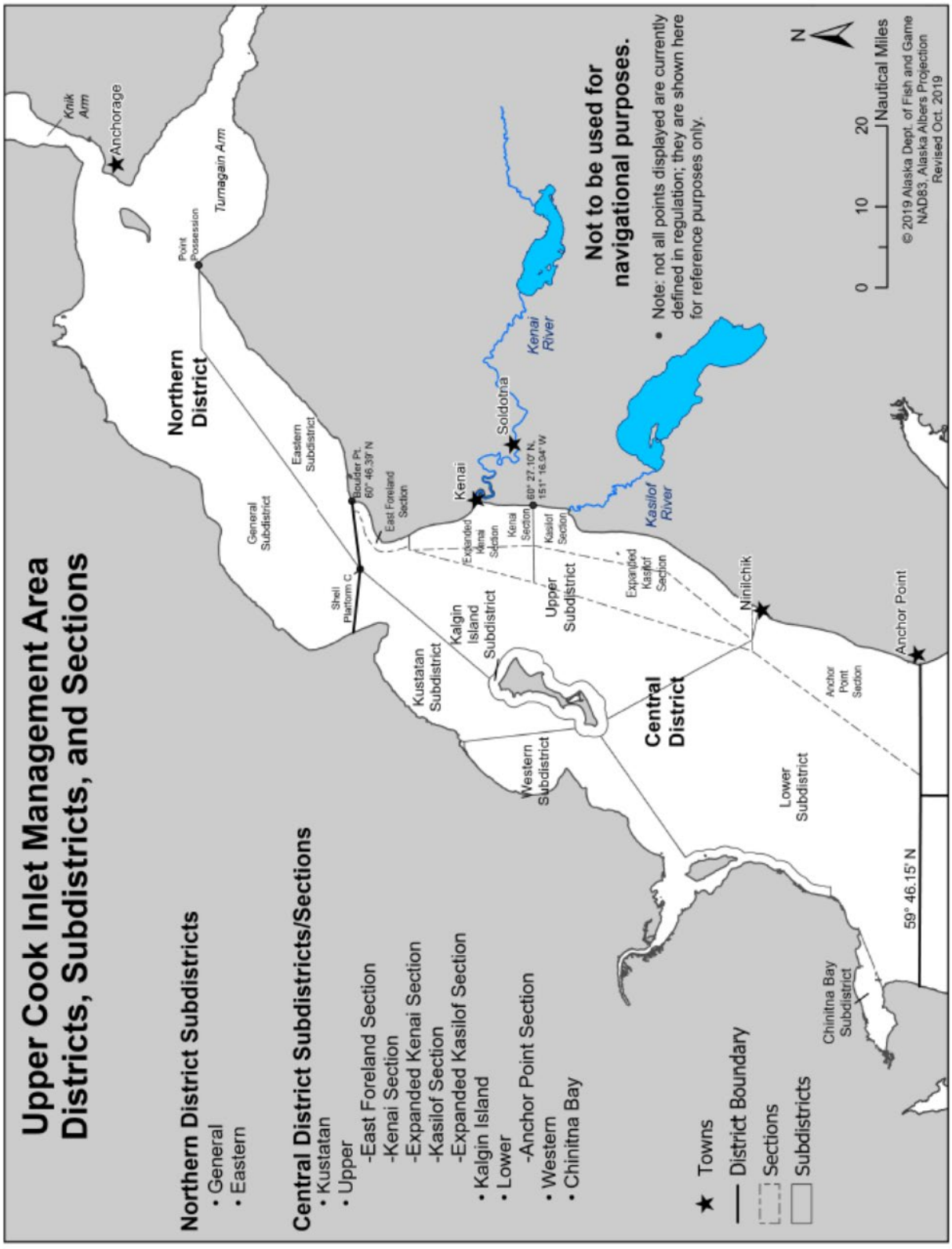
Attachment 1

Number of Salmon Harvested by the Commercial ESSN Fishery, 1985-2020						
Year	Chinook	Sockeye	Coho	Pink	Chum	Grand Total
1985	9,831	696,136	33,337	9,529	941	749,774
1986	11,897	908,292	39,007	254,727	1,674	1,215,597
1987	13,609	1,240,292	24,797	37,494	1,370	1,317,562
1988	6,670	632,868	14,632	57,779	1,444	713,393
1989	4,946	938,712	25,103	22,344	2,449	993,554
1990	1,364	198,652	13,028	65,469	689	279,202
1991	2,363	400,927	10,958	1,754	290	416,292
1992	4,378	804,753	18,205	89,811	530	917,677
1993	5,125	443,007	8,908	21,835	858	479,733
1994	7,819	672,151	27,015	85,996	915	793,896
1995	5,569	413,046	14,994	38,229	1,317	473,155
1996	5,636	578,834	16,145	35,092	728	636,435
1997	5,152	646,006	4,541	23,052	403	679,154
1998	2,306	233,944	8,335	175,276	411	420,272
1999	9,463	1,092,946	11,923	9,357	373	1,124,062
2000	3,684	529,747	11,078	23,746	325	568,580
2001	6,009	870,019	4,246	32,998	248	913,520
2002	9,478	1,303,158	35,153	214,771	1,790	1,564,350
2003	14,810	1,746,841	10,171	16,474	1,933	1,790,229
2004	21,684	2,235,810	30,154	107,838	2,019	2,397,505
2005	21,597	2,534,345	19,543	13,619	710	2,589,814
2006	9,956	1,301,275	22,167	184,990	347	1,518,735
2007	12,292	1,353,407	23,610	69,918	521	1,459,748
2008	7,573	1,303,236	21,823	59,620	433	1,392,685
2009	5,588	905,853	11,435	55,845	319	979,040
2010	7,059	1,085,789	32,683	121,817	3,035	1,250,383
2011	7,697	1,877,939	15,560	15,527	1,612	1,918,335
2012	705	96,675	6,537	159,003	49	262,969
2013	2,988	921,533	2,266	14,671	102	941,560
2014	2,301	724,398	5,908	213,616	548	946,771
2015	7,781	1,481,336	17,948	22,983	2,248	1,532,296
2016	6,759	997,853	11,606	103,503	1,203	1,120,924
2017	4,779	832,220	29,916	59,995	601	927,511
2018	2,311	289,841	4,705	21,822	78	318,757
2019	2,246	784,543	6,511	32,746	528	826,574
2020	739	279,049	298	11,432	31	291,549
Average 2010-2019	4,463	909,213	13,364	76,568	1,000	1,004,608
Average 2010-2019 [a, b]	4,880	999,495	14,123	67,409	1,106	1,087,012
Average 1985-2020	7,060	926,540	16,507	69,019	919	1,020,044
a. Excludes 2018 economic disaster						
b. Excludes 2012 declared economic disaster						

Attachment 2

Economic Value of Salmon Harvested by Commercial ESSN Fishery, 2005-2020				
Year	Average Weight (lbs)	Sockeye Harvest	Average Price/Lb	Economic Value
2005	6.1	2,534,345	$0.95	$14,686,529
2006	5.1	1,301,275	$1.10	$7,300,153
2007	6.3	1,353,407	$1.05	$8,952,787
2008	6.3	1,303,236	$1.10	$9,031,425
2009	6.4	905,853	$1.10	$6,377,205
2010	6.3	1,085,789	$1.75	$11,970,824
2011	6.5	1,877,939	$1.50	$18,309,905
2012 [a]	6.9	96,675	$1.50	$1,000,586
2013	6.5	921,533	$2.25	$13,477,420
2014	6.6	724,398	$2.25	$10,757,310
2015	5.5	1,481,336	$1.60	$13,035,757
2016	5.9	997,853	$1.50	$8,830,999
2017	5.9	832,220	$1.85	$9,083,681
2018 [b]	4.7	289,841	$2.04	$2,778,996
2019	5.2	784,543	$1.85	$7,547,304
2020	5.0	279,049	$1.35	$1,883,581
Average 2010-2019 [(a,b)]		1,088,201		$11,626,650
Average 2005-2020 [(a,b)]		1,170,198		$9,064,029
Numerical 10-Year Lost Harvest		74.36%		83.80%
Economical 16-Year Lost Harvest		76.15%		79.22%
a. Excludes 2018 economic disaster				
b. Excludes 2012 declared economic disaster				

Attachment 3



Attachment 4

Number of salmon harvested by the Upper Cook Inlet Commercial Drift Fishery 1985-2020						
Year	Chinook	Sockeye	Coho	Pink	Chum	**Grand Total**
1985	2,048	2,032,957	357,388	34,228	700,848	**3,127,469**
1986	1,834	2,837,857	506,818	615,522	1,012,669	**4,974,700**
1987	4,552	5,638,916	202,506	38,714	211,745	**6,096,433**
1988	2,237	4,139,358	278,828	227,885	582,699	**5,231,007**
1989		5	856	2	72	**935**
1990	621	2,305,742	247,453	323,955	289,521	**3,167,292**
1991	246	1,118,138	176,245	5,791	215,476	**1,515,896**
1992	615	6,069,495	267,300	423,738	232,955	**6,994,103**
1993	765	2,558,732	121,829	46,463	88,826	**2,816,615**
1994	464	1,901,475	310,114	256,248	249,748	**2,718,049**
1995	594	1,773,873	241,473	64,632	468,224	**2,548,796**
1996	389	2,205,067	171,434	122,728	140,987	**2,640,605**
1997	627	2,197,961	78,666	29,920	92,163	**2,399,337**
1998	335	599,396	83,338	200,382	88,080	**971,531**
1999	575	1,413,995	64,814	3,552	166,612	**1,649,548**
2000	270	656,427	131,478	90,508	118,074	**996,757**
2001	619	846,275	39,418	31,219	75,599	**993,130**
2002	415	1,367,251	125,831	224,229	224,587	**1,942,313**
2003	1,240	1,593,638	52,432	30,376	106,468	**1,784,154**
2004	1,104	2,529,642	199,587	235,524	137,041	**3,102,898**
2005	1,958	2,520,327	144,753	31,230	65,671	**2,763,939**
2006	2,782	784,771	98,473	212,808	59,965	**1,158,799**
2007	912	1,823,481	108,703	67,398	74,836	**2,075,330**
2008	653	983,303	89,428	103,867	46,010	**1,223,261**
2009	859	968,075	82,096	139,676	77,073	**1,267,779**
2010	538	1,587,657	110,275	164,005	216,977	**2,079,452**
2011	593	3,201,035	40,858	15,333	111,082	**3,368,901**
2012	218	2,924,144	74,678	303,216	264,513	**3,566,769**
2013	493	1,662,561	184,771	30,605	132,172	**2,010,602**
2014	382	1,501,678	76,932	417,344	108,345	**2,104,681**
2015	556	1,012,684	130,720	21,653	252,331	**1,417,944**
2016	606	1,266,746	90,242	268,908	113,258	**1,739,760**
2017	264	880,279	191,490	89,963	232,501	**1,394,497**
2018	503	400,269	108,906	83,535	108,216	**701,429**
2019	178	749,101	88,618	27,607	112,518	**978,022**
2020	126	283,772	24,419	293,122	24,696	**626,135**
2010-2019 Avg	421	1,510,944	109,691	139,796	159,437	1,920,289
2010-2019 (excludes 2018)	411	1,649,779	109,789	146,829	165,840	2,072,647
Average ALL	913	1,887,209	150,821	142,365	205,082	2,386,364

Attachment 5

Economic Value of Sockeye Salmon Harvested by the Drift Fishery 2005-2020*				
Year	Average Wt (lbs)	Sockeye Harvest	Average $/lb.	Economic Value $
2005	6.1	2,520,327	0.95	14,605,295
2006	5.1	784,771	1.10	4,402,565
2007	6.3	1,823,481	1.05	12,062,327
2008	6.3	983,303	1.10	6,814,290
2009	6.4	968,075	1.10	6,815,248
2010	6.3	1,587,657	1.75	17,503,918
2011	6.5	3,201,035	1.50	31,210,091
2012	6.9	2,924,144	1.50	30,264,890
2013	6.5	1,662,561	2.25	24,314,955
2014	6.6	1,501,678	2.25	22,299,918
2015	5.5	1,012,684	1.60	8,911,619
2016	5.9	1,266,746	1.50	11,210,702
2017	5.9	880,279	1.85	9,608,245
2018	4.7	440,269	2.04	4,221,299
2019	5.2	749,101	1.85	7,214,142
2020	5.0	283,772	1.35	1,915,461
		2010 -2019 Average		16,675,978
				* Source: ADF&G Annual Management Reports
2010-2019 Average Economic Value:			$16,675,978	
2020 Economic Value:			$1,915,461	
2020 Lost Economic Value:			88%	

Matthew Alward

11/4/2020

The Joint Protocol Committee of the

North Pacific Fisheries Management Council and the Alaska Board of Fisheries

RE: Support for alterative 2 for the Cook Inlet Salmon FMP amendment

Dear Chair Mezirow and committee members,

I want to thank the Joint Protocol committee for the opportunity to comment on the agenda. I am a commercial fisherman from Homer who has raised my family on the back deck of our fishing boat, and I support alterative 2 for the Cook Inlet salmon fisheries management plan (FMP) amendment and oppose alternatives 3 and 4. While I do not fish in upper Cook Inlet, I do strongly value and support the states' right and responsibility to manage all salmon fisheries in all waters.

Alaska became a state for purpose of taking over management of salmon from the federal government. I do not see any circumstances that can justify the state giving up management authority of salmon in any waters. While I understand that alternative 2 would set up a plan team that reviews the management regulations and escapement goals which would add cost to the state for management of the Cook Inlet drift fishery, I contend that is not a valid excuse to give up management authority to the federal government or to close a fishery that has been prosecuted for over a century. According to the executive summery of the initial review for item C4 at the October 2020 council meeting page 3, "The FMP also recognizes that the State is the authority best suited for managing Alaska salmon fisheries given the State's existing infrastructure and expertise." The fact that the councils' analysis confirms that the state is the best authority to manage Alaska salmon fisheries gives support to alternative 2 as the only preferred alternative.

Alternative 4 would give management authority to the federal government and then close the fishery in the EEZ. We have not seen any analysis of what the ramifications of closing the fishery would be, but according to testimony from Cook Inlet drift fishermen about half of the fishery occurs in the EEZ. Closing half of the fishery would have substantial impacts on fishermen, processors, shoreside support businesses and communities and could result in the fishery not being able to meet optimum yield which goes against national standard 1. Closing the traditional fishing area in the EEZ would also result in a majority of the fleet moving to ports up the Peninsula resulting in a loss of landings, vessel moorage and support side business to the town of Homer, causing significant economic harm to the community which goes against national standard 8.

In closing I want to emphasis that Alaska became a state to take control of the salmon fisheries from the federal government and I strongly believe that Alaska must not give up any salmon management authority for any reason.

Best Regards,

Matthew Alward

November 5, 2020
North Pacific Fishery Management Council
Re: Joint Protocol Committee/Cook Inlet

Dear Members of the Protocol Committee,

I am a Cook Inlet Drift Fisherman, a halibut long liner and owner/operator of the F/V Lorri Lee. I live in Homer, Alaska.

I urge the Council to choose Alternative 2 as its preferred alternative.
I oppose Alternatives 3 and Alternative 4.

As I stated in my comments to the Council earlier this fall, I support State management, managed for maxim sustainable yield directed by the Magnuson- Stevens Act and National Standard 1.

The reason I mentioned I am a halibut long liner, which I have done since 1994, both as a crew member, IFQ holder and vessel operator, is that I have seen federal management at work.

When stocks are low, my quota is reduced. Its based on science. When stocks increase, my quota increases. Again, Science. However, in the Upper Cook Inlet Drift Fishery it doesn't work that way. Every year, the Kenai and Kasilof Rivers are over escaped and I find myself with less and less fishing time. Not science based.

I have no problem sitting on the beach, if escapement is not being met but I do have a problem when escapement goals are met and I am sitting on the beach which is why we need some form of federal management for this fishery.

In 2019, I was I urged to attend an NPMFC workshop, get involved, make a difference and I left thinking ok, maybe this can work. Then 2 years later I see the State introduce Alternative 4, at the last minute, an alternative that was not even discussed at any Salmon Committee meetings and with not enough time to do the required analysis. Needless to say my faith in the process was shaken.

Understand, if the EEZ is closed, this fishery is done. Small Alaskan fishing businesses will go under or be forced into other fisheries. Processors will pull out and coastal communities such as Homer will be negatively impacted. This FMP is really the last hope for this fishery. Thank you.

UCIDA Specific Comments Concerning the FMP

1. UCIDA still takes the legal position that all salmon must be managed as a "fishery"
2. Everyone can now see the disastrous economic consequences of the 2020 State management
3. State-originated policies are regularly ignored and violated – SSFP, Esc Goal Policy, New and developing fishery policies, and Limited Entry Act and purposes
4. The State ignores Federal Governmental Acts, Policies and Procedures in the UCI Fishery
5. The legally required analyses are deficient, ignored or missing completely from the FMP
    a. Examples:

        - Surplus escapement impacts

        - Differential economic effects on fishermen and communities (Homer vs. Kenai)

        - Effect on National food security

        - Multiplier economic effects on Fishing Communities

        - Economic & Biological analysis of the State implementing management plans

        - The economic, biological and food security issues that result from the State to allocate salmon stocks

        - The State, NPFMC and NMFS failure to be able to determine compliance (Tiers 1, 2, 3)

        - What is being proposed in the FMP is a new fishing regime – new to MSA with separate analysis under NEPA

        - Failure by the State, NPFMC and NMFS to develop necessary stock assessments

        - No standards for SAFE Reports – Tiers 1, 2, and 3 – more of the same

        - Substitute Stock Complex(es) 1 – 3 for Tiers (See attached)

        - Allocations – by Complex and Species

6. Alternative 4

    a. Timing of #4 makes a mockery of the public process

    b. Never before Salmon Committee

    c. Not sufficient time to do the required analysis

    d. No analysis for Stakeholders (Due Nov. 9th)

    e. Just way too late to even be seriously considered

7. Alternatives

    a. Alternative #1 – Place Holder – Not a viable alternative

    b. Alternative #2 – Possibly, but modifications needed

    c. Alternative #3 – Cannot do – NMFS – does not have funds or staff

    NMFS cannot do #3

    d. Alternative #4 – Do not know what to do for items a-c above, so we will just close the EEZ – State cannot manage fishery, 2020 is proof of that

8. Stock Complex

    a. Please consider as a replacement for Tiers 1-3 (See attached)

Table 17. Fishing Sector Priorities, Spawners, ACL's and GHL's								
Stock Complex	**Commercial %**		**Recreational %**		**Subsistence %**		**ABC, ACL Yield %***	
Stock Complex #1	Chinook	59	Chinook	40	Chinook	1	Chinook	100
May 1 thru June 20	Sockeye	74	Sockeye	25	Sockeye	1	Sockeye	100
	Coho	0	Coho	0	Coho	0	Coho	0
	Pink	0	Pink	0	Pink	0	Pink	0
	Chum	0	Chum	0	Chum	0	Chum	0
Stock Complex #2	Chinook	51	Chinook	48	Chinook	1	Chinook	100
June 20 thru	Sockeye	89	Sockeye	10	Sockeye	1	Sockeye	100
15-Aug	Coho	80	Coho	19	Coho	1	Coho	100
	Pink	96	Pink	3	Pink	1	Pink	100
	Chum	81	Chum	18	Chum	1	Chum	100
Stock Complex #3	Chinook	0	Chinook	0	Chinook	0	Chinook	0
August 16 thru	Sockeye	88	Sockeye	10	Sockeye	2	Sockeye	100
October 30	Coho	65	Coho	33	Coho	2	Coho	100
	Pink	95	Pink	3	Pink	2	Pink	100
	Chum	95	Chum	5	Chum	0	Chum	100

ABC - Annual Biological Catch
ACL - Annual Catch Limit
GHL - Guideline Harvest Level
Exp R - Exploitation Rate
R/S - Return per Spawner
NDSS - Northern District Sockeye Salmon
KRLRSS - Kenai River Late-Run Sockeye Salmon
Current KRLRSS BEG - 600,000 - 800,000

· The primary objective is to achieve MSY/OY spawning goals where established.
· All percentages determined at Anchor Point line.
· All percentages to be applied as Spawning Goals, ACL's or GHL's are met.
· All percentages unique to inriver situations.
· No intra-river transfers for recreational sector
***** After MSY/OY spawning goals, ACL and GHL achieves spawning needs.

Example 1 - KRLRSS Complex 2	Example 2 - Kasilof Stock Complex 2	Example 3 - NDSS Stock Complex 2
2,000,000 Run (R/S 2.9:1)	800,000 Run (R/S 3.2:1)	600,000 Run (R/S 3:1)
700,000 Escapement	250,000 Escapement	200,000 Escapement
1,300,000 Harvest Exp R 65%	550,000 Harvest Exp R 69%	400,000 Harvest Exp R 67%
1,157,000 Commercial	489,500 Commercial	356,000 Commercial
130,000 Recreational	55,000 Recreational	40,000 Recreational
13,000 Subsistence	5,500 Subsistence	4,000 Subsistence
4,000,000 Run		
800,000 Escapement		
3,200,000 Harvest Exp R 80%		
2,848,000 Commercial		
320,000 Recreational		
32,000 Subsistence		
Sockeye		

Joint BOF/NPFMC – CIFF Pink Salmon Economic Disaster – Steve/John/Teague

Talking Points

Upper Cook Inlet Salmon Stocks Must Be Managed as a Fishery

- Review Economic Disaster Declaration
- Over 20 million Pink Salmon Available for Harvest
- No Pink Salmon Assessments
- No Pink Salmon Escapement Goals
- Cook Inlet Pink Salmon are Some of the Largest in Alaska and beyond 3.2 lbs.
- One Pink Salmon Will Provide a Family of Four One Meal
- BOF Management Plan(s) Provided for the Harvest of Surplus Pink Salmon
- Hundreds of UCI Fishermen Complies with the BOF Management Plans and Specification(s)
- CIFF Pink Salmon Disaster Declaration Request attached, a similar request was sent to the Secretary of Commerce

COOK INLET FISHERMAN'S FUND

Non-Profit Advocate for all Commercial Gear Types in Area H
PO Box 39408 / Ninilchik, AK 99639 / Phone 907-252-2752 / Fax 907- 567-3306

Date: October 7, 2020

Addressee: Mike Dunleavy, Governor
State of Alaska
P.O. Box 110001
Juneau, AK 99811-0001

Re: 2020 Pink Salmon Economic Disaster Declaration

Cook Inlet Fisherman's Fund (CIFF) requests an economic disaster declaration for the 2020 commercial Drift Gillet (Drift)/East Side Set Net (ESSN) pink salmon fishery in Upper Cook Inlet (UCI), Alaska.

CIFF was established in 1976 to represent the economic interests of commercial fishermen, small business owners and multi-generational commercial fishing families located in the Cook Inlet region of Southcentral Alaska. CIFF membership includes multiple commercial fishing gear types: set gillnet, drift gillnet, seine net small business owners and various federally recognized subsistence fishermen. Additionally, our membership is located in Alaska as well as the rest of the country. CIFF is defined as a regional fishing community by the Magnuson-Stevens Act (MSA):

> 16 U.S.C. 1802 MSA § 3
> "(17) The term "fishing community" means a community which is substantially dependent on or

> substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.
> (14) The term 'regional fishery association' means an association formed for the mutual benefit of members —
> (A) to meet social and economic needs in a region or subregion; and
> (B) comprised of persons engaging in the harvest or processing of fishery resources in that specific region or subregion or who otherwise own or operate businesses substantially dependent upon a fishery."

CIFF is aware of the newly adopted Federal Disaster Assistance policy and guidelines published by the NOAA Fisheries Office of Sustainable Fisheries, June 9, 2020.

CIFF fully supports the pink salmon findings and economic disaster Resolution 2020-011 by United Cook Inlet Drift Association (UCIDA) for the Cook Inlet Drift fishery. We have received and reviewed this document.

Further, CIFF is aware of the findings and economic disaster resolution(s) that are before the Kenai Peninsula Borough (KPB) Mayor and Assembly. We are more than willing to support and work with UCIDA and the KPB to secure the necessary economic disaster declaration by the Secretary of Commerce.

In 2020, a minimum of 3 million dollars of economic value was lost by the UCI
Commercial ESSN **pink salmon fishery.**

In 2020, a minimum of 4 million dollars of economic value was lost by the UCI
Commercial Drift **pink salmon fishery.**

Economically, the 2020 combined pink salmon ex-vessel lost value by the commercial Drift/ESSN fisheries was in excess of 7 million dollars.

By modest estimates, the 2020 pink salmon return to UCI was between 10-20 million individual fish. Pink salmon can safely have a 60-70% exploitation rate, or an allowed harvest percentage of a total return. With a modest estimate of 12 million pink salmon in the 2020 return, an exploitation rate of approximately 60%, or 7 million fish, is both permissible and warranted. With an estimate of 20 million pink salmon in the 2020 return, an exploitation of rate of 60%, or 12 million fish, could have occurred. This economic disaster request is based on available salmon stocks and foregone harvest opportunities.

Pink salmon in UCI average 3.2 lbs. and are some of the largest in the North Pacific Region. At 3.2 lbs., a pink salmon represents a meal for a family of four. As a National food source, 7 million pinks represents up to 7 million families with dinner on the table.

Historical harvest records are a poor indicator of this pink salmon economic disasters. Pink salmon returns display a 2-year cycle. In most of Alaska, pink returns occur in the odd-numbered years. UCI pink salmon are on an even-year cycle. The State of Alaska is aware of the even-year UCI pink cycle.

In 2020, while commercial salmon fishers sat idle this summer, 10 to 20 million pink salmon went unharvested in Cook Inlet and this wasted resource is now rotting in our rivers and streams, see Attachment 1. The commercial catch of pink salmon was only 343,000 fish. This is, once again, a fishery disaster caused by State of Alaska salmon management policies and practices that do not meet the requirements of the MSA and the National Standards.

Equally troubling is the Alaska Board of Fisheries (BOF) adopted 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan which states: ”(a) The purpose of this management plan is to allow for the harvest of surplus pink salmon in the Upper Subdistrict for

set gillnet and drift gillnet gear." The regulation goes on to indicate that "gillnets may not have a mesh size greater than four and three quarters inches." This mesh size restriction applies to both drift and set gillnet gear. Following the adoption of this mesh size restriction, hundreds of Drift/ESSN fishermen purchased new nets with this smaller mesh size in order to legally participate in the pink salmon harvests. A large, harvestable surplus of pink salmon was available. Commercial Drift/ESSN fishermen were legally licensed, ready, willing and able to participate in this fishery. Further, many fishermen personally asked and encouraged the State of Alaska to conduct a pink salmon fishery in UCI. As fishermen, we personally observed numerous pink salmon migrating along the ESSN beaches and through the waters of UCI, including EEZ waters.

The 2020 pink salmon economic disaster occurred due to the State's decision to deny a pink salmon fishery. 2020 did not need to be such an economic disaster for UCI commercial fishermen. Poor and biased management led by the Alaska Department of Fish and Game's Commissioner, Doug Vincent-Lang, once again allowed wasteful underharvests of pink salmon.

In recent years, invasive species are taking over essential salmon habitat, habitat degradation is not being monitored or addressed and the State's response is to further restrict commercial fishing and to cut funding for management, including not collecting scientific data and management indices necessary for MSY management. These cuts include eliminating smolt outmigration counters, eliminating weirs used to count returning salmon, eliminating a sonar counter and pulling the remaining sonar counters before the entire run is in the river. The result is millions of unharvested surplus salmon and disastrous economic harm to the commercial fishing industry and fishing communities along with biological harm to the salmon resource. With up to a $2.0 billion annual budget deficit, the State has no financial capacity (or apparent interest) to address the emerging challenges to this fishery in years to come. If this is what "best suited" fishery management looks like, the future is dire for Cook Inlet fishing communities.

Cook Inlet commercial fishing groups, including UCIDA, CIFF and other fishing communities, are sending economic disaster requests to our local governments, the State of Alaska and the Secretary of Commerce. These disaster declarations and requests are occurring because of disastrous salmon harvests. UCIDA and CIFF along with other members of the fishing community are anxiously awaiting the reaction of the Secretary of Commerce and the State of Alaska concerning these economic disasters.

Cook Inlet Fisherman's Fund
Resolution 2020-019

WHEREAS, CIFF is a duly registered, fishing community association legally recognized by the State of Alaska and the Federal Government; and

WHEREAS, CIFF is registered as a 501(c)(6) Domestic Nonprofit Corporation with the Federal Government; and

WHEREAS, CIFF is a professional commercial salmon trade association; the Board of Directors are elected by participants of the fishery; and

WHEREAS, CIFF provides for the wholesale or retail marketing, sale, delivery, distribution, or processing of Drift/ESSN salmon and its by-products, caught in all waters of and adjacent to the Pacific Ocean north of a line extending east from Cape Douglas to the longitude of Cape Fairfield; including the negotiation of wholesale and/or retail prices, contracts, sale's agreements, distribution, processing, marketing, custom processing, agency, brokerage, and shipping agreements and contracts for its members; and

WHEREAS, CIFF does research, obtains grants, and makes studies for the enhancement, rehabilitation and marketing of commercial Drift/ESSN caught salmon and makes proposals and lobbies for legislation and regulations to promote and better the commercial salmon industry; and

WHEREAS, CIFF participates in legal actions determined by the Board of Directors to be in the best interest of the commercial fishing community; and

WHEREAS, CIFF members own several hundred vessels and skiffs that are directly used in the harvesting of salmon and other fish stocks, and members primarily reside in Alaska, but members are also in 28 other US states; and

WHEREAS, CIFF members have invested tens of millions of dollars in vessels, skiffs, limited access fishing privileges, setnet fishing sights, gear shops and sheds, homes, docks, vehicles, smaller-sized mesh gillnets, gear and equipment; and

WHEREAS, the 2020 lost economic ex-vessel value of the Drift/ESSN pink salmon fisheries was in excess of 7 million dollars; and

WHEREAS, the Drift/ESSN salmon fishermen were, by regulation, prevented from harvesting pink salmon during the historical time of year and from traditional areas as they migrate into UCI; and

WHEREAS, State regulators have abandoned abundance-based management practices in favor of highly prescriptive-based management practices causing insufficient fishing opportunity and resulting in economic disasters, reduced food

supply, economies and future salmon returns; and

WHEREAS, this extremely low harvest was below the level necessary to cover the cost of operating and maintaining the commercial Drift/ESSN family fishing businesses and the processing and marketing businesses in the Kenai Peninsula Borough; and

NOW, THEREFORE, BE IT RESOLVED BY THE CIFF BOARD OF DIRECTORS:

SECTION 1. That CIFF, an elected regional fishing community, declares an economic disaster exists among the commercial Drift/ESSN fishing communities as a result of the virtual non-existent pink salmon fishery.

SECTION 2. That the CIFF Board of Directors respectfully request the State of Alaska declares an economic disaster for the 2020 UCI commercial Drift/ESSN pink salmon fisheries.

SECTION 3. CIFF respectfully requests the Secretary of Commerce declares an economic disaster, as provided for in MSA and the IFA, and implements a recovery plan that provides private and public assistance and takes other actions to benefit the commercial Drift/ESSN fishery participants and others that rely on this important fishery resource.

SECTION 4. CIFF requests that copies of each economic disaster resolution be provided to the Kenai Peninsula Borough Assembly and Mayor, the

Governor of Alaska as well as other affected parties.

SECTION 5. That this resolution becomes effective immediately upon its adoption.

ADOPTED BY THE CIFF BOARD OF DIRECTORS THIS 7TH DAY OF OCTOBER 2020.

Sincerely,

Original Signed Document

John McCombs, President
Cook Inlet Fisherman's Fund

cc: State Director USDA Rural Development Jerry Ward
US Senator Lisa Murkowski
US Senator Dan Sullivan
US Senator Maria Cantwell
US Representative Don Young
AK Senator Peter Micciche
AK Senator Gary Stevens
AK House Speaker Bryce Edgmon
AK Representative Sarah Vance
AK Representative Ben Carpenter
AK Representative Louise Stutes
AK Representative Jonathan Kreiss-Tomkins
Kenai Peninsula Borough Mayor Charlie Pierce
Kenai Peninsula Borough Assembly
Kenai City Mayor Brian Gabriel
Homer City Mayor Ken Castner
Soldotna City Mayor Peter Sprague
Kenai Peninsula Economic Development District
Cook Inlet Aquaculture Association
Cook Inlet Processors:
Pacific Star Seafoods
Copper River Seafoods
OBI Seafoods, Inc.

Attachment 1

Attachment 2

Steve Vanek
Fishermen
11/04/2020 01:45 PM AKST

RE: Tech set up, Introductions, Agenda review

want to testify