

A. Amendment 16 Issues

The proposed Amendment 16 to the Salmon Fishery Management Plan for Alaska (FMP) does not apply to the entire 'fishery,' as defined in the Magnuson-Stevens Act (MSA) and the 9th Circuit Court clearly ruled in 2016 when they found Amendment 12 to be contrary to law. In the second attempt by the National Marine Fisheries Service (NMFS) and the North Pacific Fisheries Management Council (NPFMC) to produce an FMP for Cook Inlet, the US District Court Judge, in June 2022, ruled that Amendment 14 was arbitrary and capricious and was not in accordance with the law. Amendment 14 was vacated. The proposed FMP Amendment 16 is largely a repeat of the last two illegal attempts to produce an MSA-compliant FMP.

Artificially bifurcating the fishery into Federal and State fisheries will result in an incoherent management scheme that will not and cannot comply with the requirements of Federal Law.

The proposed Amendment 16 will also violate every one of the 10 National Standards (NS1-10) as it does not apply to the entire 'fishery'.

Setting a Total Allowable Catch (TAC) for the Upper Cook Inlet salmon fishery is entirely inconsistent with managing a fishery on the basis of Maximum Sustained Yield (MSY). Optimum Yield (OY) is a subset of MSY. If the fishery is not managed on the basis of MSY, OY cannot be achieved on a continuing basis, as NS1 requires.

Anything below in *italics* is a direct quote from the MSA or NS1-10

(2) Overview of Magnuson-Stevens Act concepts and provisions related to NS1 –

(i) MSY. The Magnuson-Stevens Act establishes MSY as the basis for fishery management and requires that: The fishing mortality rate does not jeopardize the capacity of a stock or stock complex to produce MSY; the abundance of an overfished stock or stock complex be rebuilt to a level that is capable of producing MSY; and OY not exceed MSY.

(ii) OY. The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's conservation and management objectives, achieving a fishery management plan's (FMP) objectives, and balancing the various interests that comprise the greatest overall benefits to the Nation. OY is based on MSY as reduced under paragraphs (e)(3)(iii) and (iv) of this section. The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing.

B) Overfishing (to overfish) occurs when a stock or stock complex is subjected to a level of fishing mortality or annual total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

A biological fish stock is a group of fish of the same species that live in the same geographic area and mix enough to breed with each other when mature.

With salmon fisheries the science is clear, both overfishing (too much harvest) and underfishing (too little harvest) can jeopardize the capacity of a stock or stock complex to produce MSY on a continuing basis.

The proposed amendment does not set OY as described in NS1, on the basis of MSY. Instead, it uses a range of harvest from 1999-2021 as its basis. The SAFE document uses harvest from 2019-2023 as the basis for OFL and ABC. The State, however, has not been managing the fishery on the basis of MSY, therefore the OY range in the proposed amendment has no relationship to MSY. The range of harvest that NMFS uses is not a factual data set and is the result of bad management practices by the State of Alaska which resulted in large sockeye overescapements in both the Kenai and Kasilof Rivers during that time period. During that time period, salmon harvesting in the EEZ was restricted for most openings and the drift fleet was prevented from harvesting the excess to achieve MSY. Now, NMFS intends to use those reduced harvest levels to guide future management. NMFS now wants to enshrine the bad management practices by the State of Alaska and turn it into Federal law.

Therefore, the OY range for the Cook Inlet EEZ salmon fishery is specified as the range between the average of the three lowest years of total estimated EEZ salmon harvest and the three highest years of total estimated EEZ salmon harvest from 1999 to 2021. (Proposed Amendment 16.)

The 2024 SAFE Report proposes to use the harvest numbers from 2019-2023. There is no explanation why this time period was utilized for the analysis. (2024 SAFE Report.)

Both the State of Alaska and the stakeholders agree that TAC's do not work in salmon management. See Denby Lloyd's letter to the NPFMC. NMFS is insisting that they are required to set a TAC, but alternative approaches to satisfying NS1 requirements are allowed under MSA.

(2) Exceptions from ACL and AM requirements - -

(3) Flexibility in application of NS1 guidelines. There are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines. These include, among other things, conservation and management of Endangered Species Act listed species, harvests from aquaculture operations, and stocks with unusual life history characteristics (e.g. Pacific salmon, where the spawning potential for a stock is spread over a multi-year period). In these circumstances, Councils may propose alternative approaches for satisfying the NS1 requirements of the Magnuson-Stevens Act than those set forth in these guidelines. Councils must document their rationale for any alternative approaches for these limited circumstances in an FMP or FMP amendment, which will be reviewed for consistency with the Magnuson-Stevens Act.

Biological reference points estimated for many salmon stocks demonstrate that salmon populations are extremely productive, with the limit return per spawner (a) 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).

B. Total Allowable Catch

Problems:

In the proposed Amendment 16, the TAC and the harvest recommendations are different than those depicted in Table 4 of the 2024 SAFE Report, would be based on a range of historical catch data that NMFS is calling OY. NMFS is proposing that the OY range for the Cook Inlet EEZ salmon fishery is specified as the range between the average harvest of the last five years of total estimated EEZ salmon harvest 2019-2023. This would result in an OY and ABC range of approximately 1,763,000 salmon of all species. The TAC would be set annually for each species or stock and would be a specific number within that OY, OFL and ABC range.

There are numerous problems with this **non-abundance-based** approach;

1. National Standard 1 requires that the fishery be managed on the basis of MSY and requires that fishing mortality does not jeopardize the capacity of a stock or stock complex to produce MSY. National Standard 1 also requires that OY is based on MSY, and that OY be achieved on a continuing basis.

The range of harvest that NMFS is calling 'the OY range' has no relationship to MSY or stock abundance. Instead, it is based on five years of State of Alaska management practices that have resulted in large overescapements of sockeye in 5 of the last 5 years in the Kenai River and tremendous underharvest of all other stocks during that same time period.

For the last 30+ years the State of Alaska has restricted the commercial fishery (both time and area restrictions) in Cook Inlet and has failed to manage the fishery on the basis of MSY. The fishery has been in decline (largely due to bad management and underharvest) since about 1990, yet NMFS wants to enshrine these past bad management practices of the State and turn it into federal law.

2. With salmon fisheries the science is clear, both overfishing (too much harvest) and underfishing (too little harvest) can jeopardize the capacity of a stock or stock complex to produce the MSY on a continuing basis. Amendment 16 violates NS1 as it doesn't manage the entire fishery on the basis of MSY and requires setting a TAC for the EEZ, both of which effectively eliminate the possibility of achieving OY for the fishery on a continuing basis. Setting a TAC for just a part of the Cook Inlet salmon fishery, the drift fleet only, is entirely inconsistent with managing the fishery on the basis of MSY as required under NS1. Optimum Yield is a subset of MSY; if the entire fishery is not managed on the basis of MSY then OY for the fishery cannot be achieved on a continuing basis as NS1 requires.

3. The proposed OY and the calculation of the TAC is based on a range of harvest of all stocks between 1999 and 2021. (Proposed Amendment 16.) Overescapement of sockeye in the Kenai River occurred in 19 of the last 23 years, some years had an overescapement of over a 1,000,000 sockeye. Significant overescapements of sockeye during this time period also occurred in the Kasilof River. According to ADF&G reports, harvest of other stocks was well below MSY/OY exploitation rates. MSY harvest rates for coho, pink and chum stocks should be between 53% and 63% and the actual harvest rates were 2% -10% when the study, Regional Information Report 2A03-20, published 2003, was conducted. The proposed OY range and the calculation of the TAC have no relationship to and no basis in MSY for Cook Inlet salmon stocks.

4. Historical harvests are not associated with salmon stock abundances. Harvests of UCI salmon stocks are a result of the State restrictions on season opening and closing dates and restrictions on fishing time and areas in specified corridors or districts.

The proposed OY range and the calculation of the TAC do not incorporate or even contemplate the large biannual pink salmon returns to Cook Inlet. Additionally, the early run stocks in mid-May and the late run stocks occurring from August thru the remainder of the year are not identified or discussed. In even years, the pink salmon returns can exceed 20 million fish, but these stocks are largely underfished and wasted. According to the 2002 ADFG mark-recapture population estimate study (Regional Information Report 2A03-20, published 2003) on coho, pinks and chums, the Upper Cook Inlet commercial fishery harvest rates on coho were about 10%, pinks were around 2% and chums were around 6%. A 2% harvest rate for pinks is not anywhere close to meeting the MSY exploitation rate of 53% and yet this proposed 2024 SAFE Document does not even consider this profound error in management.

5. The proposed OY range and the calculation of the TAC includes four years, 2020, 2021, 2022 and 2023, which were declared to be economic disasters by the Secretary of Commerce.

6. The proposed 2024 SAFE TAC will not meet the requirements of the MSA and the Ten National Standards. Using a TAC is not appropriate in salmon management. Both the State and the stakeholders have repeatedly informed NMFS and the NPFMC that TACs are not appropriate for salmon management. In a letter dated August 31, 2010, from then ADFG Commissioner Denby Lloyd to the NPFMC, he states "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." He went on to say that "Management of Alaska salmon fisheries calls for an alternative approach to that taken for other stocks under a federal fishery management plan for the following reasons:

- a. Unlike groundfish stocks, salmon are semelparous, reproducing once in the life cycle;
- b. The harvestable surplus is entirely new recruits, and the catch comprises almost exclusively mature salmon;
- c. The productivity of a specific year class cannot be improved by limiting harvest in subsequent years;

Foregone harvest cannot be recaptured in future years; and

- d. Since abundance cannot be estimated effectively in advance, in-season estimations of abundance using contemporaneous 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.”

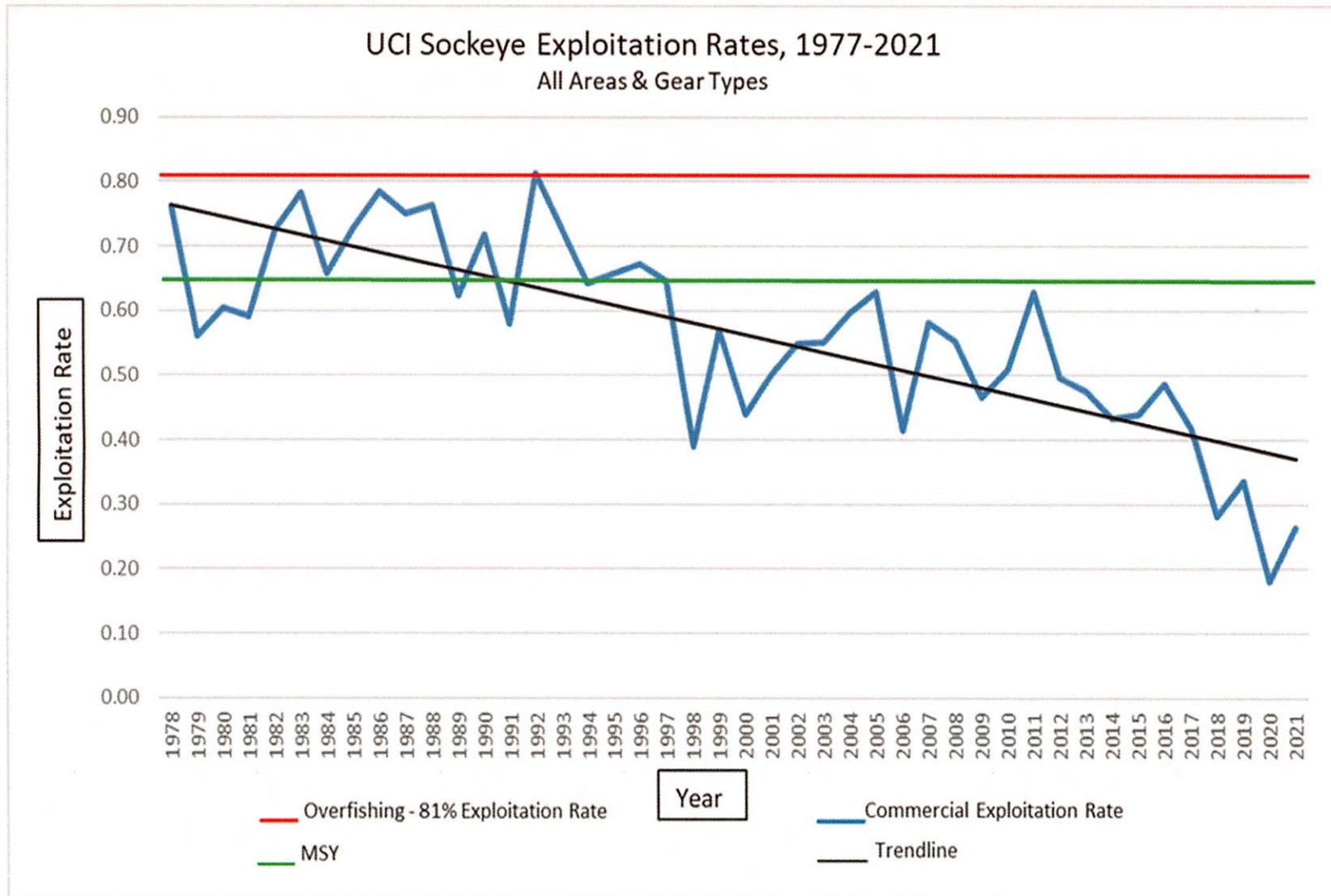
C. Total Allowable Catch Methodology

Deficiency Issues - TACs and 2024 Preliminary Salmon SAFE Report to the SSC

1. The proposed amendment is attempting to enshrine the State’s past non-compliant MSA management practices into Federal Regulations (FMP) for the third time.
2. Any proposed TAC will not achieve MSY in this salmon fishery.
3. Using a truncated catch history is not an appropriate metric to achieve MSA and the National Standards.
4. The proposed TAC is for the drift fleet only, not the entire fishery.
5. The proposed TAC includes harvests from 1999 – 2021. (Amendment 16) Beginning in 1999:
 - a. The State started to place time and area restrictions on the commercial industry in 1999.
 - b. The State intentionally restricted the commercial fishery, and interstate commerce, and allowed unharvested surplus stocks to go to waste.
6. The proposed calculation of the TAC includes four years: 2020, 2021, 2022 and 2023, which were declared economic disasters by the Secretary of Commerce, and 2024 appears to be repeat of the 2023 season.

7. The proposed TAC references harvest of all salmon between 1999 and 2021. Overescapement occurred in 19 out of those 23 years. In the Kenai River alone, some years had an overescapement of over 1,000,000 sockeye.
8. Now, in the 2024 SAFE Report, the timeframe is 2019 – 2023.
9. Based on ADF&G studies, all other stocks have been overescaped (underharvested) in 23 of the 23 years.
10. The proposed TAC does not meet MSY/OY MSA mandates. No discussion of large pink returns in excess of 20 million.
11. The 1999 – 2021, harvests contain multiple years of smaller returns due to density dependent effects on spawning.
12. The proposed TAC does not meet MSA mandates.
13. The proposed TAC does not comply with the 10 National Standards.
14. The proposed TAC does not address priority use for Federal Subsistence.
15. The proposed TAC still assumes the State of Alaska can apply parochial interests ahead of the National interest.
16. The proposed TAC assumes a 10% to 90% buffer applied to harvest rate for the EEZ harvests as a percentage of total harvest by the drift fleet. There is no data to support this WAG.
17. The proposed TAC does not discuss the criteria that will be used to close the fishery. The only criterion that is presented is a salmon harvest of 291,631. This single criterion of 291,631 salmon does not meet MSA and the National Standards requirements. (Amendment 16.)
18. The Secretary of Commerce is the only entity that can close the fishery.
19. Figure 1, Page 7. Points:
 - a. The 81% sockeye overfishing exploitation rate line is plotted in red in Figure 1. This overfishing exploitation percentage rate is identified by former ADF&G Commissioner, Denby Lloyd, in a letter dated August 31, 2010.
 - b. The 65% sockeye MSY exploitation rate line is plotted in blue in Figure 1. This MSY fishing exploitation percentage rate is identified by former ADF&G Commissioner, Denby Lloyd, in a letter dated August 31, 2010.

Figure 1



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D. MSY Issues

1. The proposed TAC in Table 4 of the SAFE Report, as described, does not meet MSA or the 10 National Standards. Achieving MSA and the 10 National Standards is seldom mentioned in the document, nor how they would actually be achieved in 2024. However, on page 26 the stated purpose is:

“Given the considerations above, and the fact that recent estimates of harvest of this stock in the EEZ have been below the recommended 2024 preseason ABC during recent years under SOA management (i.e., would appear to provide for sufficient harvest opportunity in the EEZ), and that the Federal management framework largely preserves the State management framework on which the SAFE estimates are based, it is the recommendation of the NOAA SAFE Team that the 2024 preseason ABC be set at 652K sockeye salmon for this stock.”

This 2024 Preliminary SAFE Report is to preserve the State management framework. This is stated in bold defiance to numerous Federal court orders. Note: over 30 Federal judges have ruled that the National interests such as MSA, 10 National Standards and other Federal laws shall come first, and any State or parochial interests must follow all Federal laws and court orders.

With these court orders, all parties are expected to manage fisheries following Federal laws and National Standards. By modeling a TAC that attempts to codify current arbitrary and capricious State management framework in and of itself is arbitrary and capricious.

2. Harvests are not representative of stock assessments. Current 5-year harvests, as presented, do not identify:
 - a. Early run sockeye from the Kenai, Kasilof and Russian Rivers, Wolverine Creek, or other populations. These populations enter and occur in UCI from mid-May thru mid-to-late June, prior to the opening of the commercial drift fishery. These sockeye populations have annual runs of 100,000-200,000; or
 - b. Early Chinook populations from the Kasilof, Susitna, Yentna, Matanuska Rivers, the Susitna above the Yentna or others. Annually, approximately 135,000 Chinook migrate thru the EEZ prior to the drift fleet season opening date. It is pointed out that the West-Side Setnet opening date is June 1; or
 - c. Historically, more than 75% of the chum populations have arrived in mid-August thru September. Coho populations often follow the same pattern. To a lesser extent, the numerous even-year pink runs occur after August 1. Currently, the drift fleet is not allowed

to harvest these pinks while they are in the EEZ, The EEZ is restricted or closed to commercial harvesters between August 1st and 15th. The sport fishery remains open 7 days per week to the end of October.

3. The current State management practices are focused on Large Chinook, greater than 75 cm, or 31 inches MEFL. Small Chinook, less than 50 cm, or 20 in, have a 10-fish limit per day, with no reporting requirements and are not included in the annual sportfish seasonal limits. The commercial fishery, however, must report ALL Chinook of ALL sizes on their daily fish ticket. This partial reporting by the recreational users versus the mandatory reporting by the commercial users produces a greatly distorted data set. State reporting doesn't reflect the difference in harvest reporting. The State stock assessments totally ignore the Small Chinook in the Kenai River sport fishery, even though these Small Chinook may currently make up the majority of the run.
4. Lastly, the Small Chinook are not included in any escapement numbers for the Kenai River or used in the forecasting of future runs. Where there are other population estimates by weir, aerial or foot surveys, it is totally unclear if the Small Chinook are enumerated.

E. Description and Calculations Used in UCIDA Tables 1 thru 6

1. Column A - Year
2. Columns B & C - Run Forecasts or Estimated Run Sizes
 - a. Column B – State Forecast or Stock Estimate
 - b. Column C – Federal Forecast or Stock Estimate
3. Column D - Federal Buffer percentage in values of 0 to 50%. The buffer is to account for uncertainty in the forecasted runs. A value of 0 indicates no buffer is applied. A value of .5 indicates a 50% buffer is applied. Buffers are both positive and negative values creating a range. The lower limit of the buffer value range was used.
4. Column E - The actual run expressed in number of thousands of fish.
5. Column F - Harvest estimate of the number of salmon harvested in the EEZ by the drift fleet in thousands.
6. Column G - Harvest percentage calculated by dividing the EEZ harvest estimate by the actual run multiplied by the buffer.
 - a. Example from Table 1:

- $252 \div 3,630 = 6.9\%$ drift harvest of the total 2019 Kenai River Late-Run Sockeye run
- b. For sockeye, the actual run was used.
 - c. For Chinook, coho, chum and pink, the forecast or run estimate was used.
7. Column H - OFL – Overfishing Limit is a percentage of harvest exploitation rate expressed as an upper limit above which overfishing is likely to occur. The OFL percentages are multiplied by the actual run to determine the number of salmon that can be harvested over a number of years.
 - Example from Table 1: $81\% \times 3,630 = 2,940$ OFL
 8. Column I - ABC – Allowable Biological Catch is a percentage of the biological harvest exploitation rate that can occur over a number of years. The ABC is multiplied by the actual run to determine the number of salmon that can be harvested over a number of years.
 - Example from Table 1: $65\% \times 3,630 = 2,360$ ABC
 9. OFL and ABC percentages from the August 31, 2010, letter from then ADF&G Commissioner, Denby Lloyd, to then NPFMC Executive Director, Chris Oliver, regarding State management of fisheries.

Table 1. Sockeye								
Kenai River Late-Run Sockeye Harvest Rates (in 1000's)								
	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 81% TOTAL RUN	ABC 65% TOTAL RUN
	STATE	FEDERAL						
2019	3,814	3,542	0	3,630	252	6.9%	2,940	2,360
2020	2,231	2,394	0	2,552	50	2.0%	2,067	1,659
2021	2,325	3,992	0	3,819	256	6.7%	3,093	2,482
2022	2,902	2,682	0	2,682	332	12.4%	2,172	1,743
2023	2,821	3,882	0	3,822	418	10.9%	3,096	2,484
2024		3,485	0					
5-Year Average	2,819	3,298	0	3,301	262	7.8%	2,674	2,146
Kasilof River Sockeye Harvest Rates (in 1000's)								
	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 81% TOTAL RUN	ABC 65% TOTAL RUN
	STATE	FEDERAL						
2019	873	670	0	613	10	1.6%	497	398
2020	723	821	0	845	6	0.7%	684	549
2021	881	871	0	925	21	2.3%	749	601
2022	310	346	0	1,495	45	3.0%	1,211	972
2023	941	1,495	0	1,393	57	4.1%	1,128	905
2024		1,393	0					
5-Year Average	746	841	0	1,054	28	2.3%	854	685
Total Other Sockeye Harvest Rates (in 1000's)								
Susitna River	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 81% TOTAL RUN	ABC 65% TOTAL RUN
Fish Creek	STATE	FEDERAL						
Minor Systems	STATE	FEDERAL	%	RUN	ESTIMATE	PERCENTAGE	TOTAL RUN	TOTAL RUN
2019	1,348		0	933	73	7.8%	756	606
2020	1,316		0	990	13	1.3%	802	644
2021	1,167		0	1,010	54	5.3%	818	657
2022	1,124		0	1,079	133	12.3%	874	701
2023	1,173		0	1,273	183	14.4%	1,031	827
5-Year Average	1,226		0	1,057	91	8.2%	856	687

Note: In 2022 and 2023, State waters and East Side Setnetters were closed. Kenai numbers do not include Early Sockeye Runs.

Table 2. Chinook								
Aggregate Chinook Salmon Tier 3 Harvest Rates - Individual Fish, Revised Feb. 20, 2024								
	RUN FORECAST		BUFFER %	ACTUAL RUN*	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 83% RUN	ABC 68% RUN
	STATE	FEDERAL						
2019	210,000	N/A	25%	3,119	130	0.08%	130,725	107,100
2020	210,000	N/A	25%	2,935	81	0.05%	130,725	107,100
2021	210,000	N/A	25%	3,707	141	0.09%	130,725	107,100
2022	210,000	N/A	25%	2,265	116	0.07%	130,725	107,100
2023	210,000	N/A	25%	745	85	0.05%	130,725	107,100
2024	210,000	450			450			
5-Year Average				2,554	111	0.07%		
* Chinook Actual Run numbers are taken from the 2024 SAFE Report, not actual State harvest numbers.								
• Kenai Late-Run:								
SMALL CHINOOK: <51cm = 20in				7,000				
52-75cm = 21-30in				7,000	MEFT + 3 - 4 INCHES = 34 - 35 INCHES			
LARGE CHINOOK: >75 cm = 31in				14,000				
• Kenai Early-Run				10,000				
• Total Kenai				38,000				
• Kasilof				10,000				
• Susitna, above Yentna confluence				90,000				
• Yentna				25,000				
• Knik Arm Stocks				4,500				
• Matanuska				6,500				
• East Side Kenai Peninsula				12,000				
Total Aggregate Chinook				186,000				
• Sportfish Chinook Limit: 10 CHINOOK PER DAY less than 51cm - NO RECORDS or ASSESSMENTS								
• ADF&G: NO Stock Abundance - NO Stock Assessments								
• Commerical Harvesters: Reports ALL CHINOOK - ALL SIZES - MATICULOUS RECORDS								

Table 3. Chum								
Aggregate Chum Salmon Tier 3 (in 1000's)								
	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 74% TOTAL RUN	ABC 56% TOTAL RUN
	STATE	FEDERAL						
2019	3,060	N/A	50%	129	54	3.53%	1,239	918
2020	3,060	N/A	50%	29	8	0.52%	1,239	918
2021	3,060	N/A	50%	70	29	1.90%	1,239	918
2022	3,060	N/A	50%	99	39	2.55%	1,239	918
2023	3,060	N/A	50%	127	51	3.33%	1,239	918
2024	3,060		50%		221			
5-Year Average				91	36	2.37%		
1. MARK-RECAPTURE POPULATION ESTIMATES OF COHO, PINK, AND CHUM SALMON RUNS TO UPPER COOK INLET IN 2002, Regional Information Report No. 2A03-20, Willette et al., 2003.								
2. Estimated 6% Chum Salmon Exploitation Rate, Willette, et al., 2003								

Table 4. Coho								
Aggregate Coho Salmon Tier 3 (in 1000's)								
	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 80% TOTAL RUN	ABC 63% TOTAL RUN
	STATE	FEDERAL						
2019	2,160	288	50%	163	39	3.61%	864	680
2020	2,160	238	50%	139	2	0.19%	864	680
2021	2,160	287	50%	147	33	3.06%	864	680
2022	2,160	220	50%	103	24	2.22%	864	680
2023	2,160	204	50%	84	25	2.31%	864	680
2024	2,160	253	50%					
5-Year Average		247		127	25	2.28%		

1. MARK-RECAPTURE POPULATION ESTIMATES OF COHO, PINK, AND CHUM SALMON RUNS TO UPPER COOK INLET IN 2002, Regional Information Report No. 2A03-20, Willette et al., 2003.
 2. Estimated 10% Coho Salmon Exploitation Rate, Willette, et al., 2003
 3. Actual UCI total Coho harvest in all areas, all gear types

Table 5. Pink								
Aggregate Pink Salmon Tier 3 (in 1000's)								
	RUN FORECAST		BUFFER %	ACTUAL RUN	EEZ HARVEST ESTIMATE	EEZ HARVEST PERCENTAGE	OFL 72% TOTAL RUN	ABC 53% TOTAL RUN
	STATE	FEDERAL						
2014	40,100	N/A	50%	643	150	0.75%	14,436	10,627
2015	1,600-8,000	N/A	25%	48				
2016	40,100	N/A	50%	382	109	0.54%	14,436	10,627
2017	1,600-8,000	N/A	25%	167				
2018	40,100	N/A	50%	127	39	0.19%	14,436	10,627
2019	1,600-8,000	N/A	25%	70				
2020	40,100	N/A	50%	345	12	0.06%	14,436	10,627
2021	1,600-8,000	N/A	25%	81				
2022	40,100	N/A	50%	101	30	0.15%	14,436	10,627
2023	1,600-8,000	N/A	25%	66				
2024	40,100	N/A	50%					

1. MARK-RECAPTURE POPULATION ESTIMATES OF COHO, PINK, AND CHUM SALMON RUNS TO UPPER COOK INLET IN 2002, Regional Information Report No. 2A03-20, Willette et al., 2003.
 2. Estimated 12% Pink Salmon Exploitation Rate, 1.6 - 40.16 mil, 95% UCI, Willette, et al., 2003
 3. Cook Inlet has both even- and odd-year Pink returns. Even years are larger than odd year returns
 4. 4,100,000 - 8,000,000 is an estimate of odd-year Pink returns

F. Discussion

TABLE 1. SOCKEYE STOCK

EEZ harvest rates as a percentage of total run and stock abundance:

- Sockeye – Kenai River Late-Run 7.8%
- Sockeye – Kasilof River 2.3%
- Sockeye – Other Stocks 8.2%

This is to indicate that these are the average harvest/exploitation rate for each stock. These values are far below the 65% harvest/exploitation rates indicated by the State. The OFL and ABC are harvests required by MSY, OY and NS1.

TABLE 2. AGGREGATE CHINOOK STOCK COMPLEX – ALL SIZES AND AGE GROUPS

The average harvests in the EEZ were 0.07% - 7/100th of 1%. This harvest/exploitation rate is laughable and highly illegal by MSA, MSY, OY and the National Standard mandates. For the readers' information, a listing of the major populations that comprise the Chinook stocks is identified, perhaps for the first time, in all the hundreds of pages of materials generated by the State and NMFS Staff. As can be seen, there is no shortage of Chinook, only the Chinook harvest in the EEZ. To focus the Amendment 16 SAFE Report on the Large Chinook is deceptive and fails on its own face.

TABLE 3. AGGREGATE CHUM STOCK

The average EEZ harvest/exploitation rate was 2.37%. This harvest rate is dramatically below the State's MSY harvest rate of 56%. This one is also laughable. This harvest rate is a direct result of the State's mismanagement. For the most part, chums run up the northeast part of Cook Inlet and are rarely harvested by other gear types. This low harvest rate is the result of time and area restrictions. The aggregate chum run forecast is taken from the Regional Information Report 2A03-20, published in 2003. The lower numerical value of the population estimate 3,060 was used, then a 50% buffer was applied and used to calculate the harvest/exploitation rate of 2.37%. In other words, the lower stock estimate was used and then a 50% buffer was applied.

TABLE 4. AGGREGATE COHO STOCK

The average EEZ harvest/exploitation rate was 2.28%. This harvest rate is also dramatically below the State's MYS rate of 63%. This harvest rate is a direct result of the State's mismanagement. For the most part, coho run up the northeast part of Cook Inlet. This low harvest rate is the result of time and area restrictions. The aggregate coho run forecast is taken from the Regional Information Report 2A03-20, published in 2003. The lower numerical value of 2,160 was used, then a 50% buffer was applied and used to calculate the harvest/exploitation rate of 2.28%. In other words, the lower stock estimate was used and then a 50% buffer was applied.

TABLE 5. AGGREGATE PINK STOCK

The average EEZ harvest/exploitation rate was 0.34%. This is to say that even-year pinks have a harvest/exploitation rate of 0.34 of 1%. This is again, laughable. This harvest rate is a direct result of the State's mismanagement. For the most part, pinks run up the northeast part of Cook Inlet. This low harvest rate is the result of time and area restrictions. The aggregate chum pink run forecast is taken from the Regional Information Report 2A03-20, published in 2003. A 50% buffer was applied to the forecast and used to calculate the harvest/exploitation rate. For the reader's information, larger pink runs are in even years, smaller pink runs are in odd years. This is opposite of Prince William Sound, Kodiak and Alaska Peninsula pink runs.

G. Summary of TAC Models

Non-abundance based OFLs and ABCs were identified in the 2024 SAFE Report. These EEZ harvests have no relationship to MSY/OY or the NS1 mandates. Then, in the SAFE Report on these contrived harvest values, there are suggested buffers that further reduce EEZ harvests of the various stocks. In the stock abundance-based models, the real EEZ harvest percentages are identified. All the information in Tables 1-6 is taken from the State's reports, NMFS, NPFMC and NGO grant organizations. UCIDA organized the existing data and developed simple mathematical models to arrive at harvest rate percentages, OFL and ABC of harvestable salmon stocks.