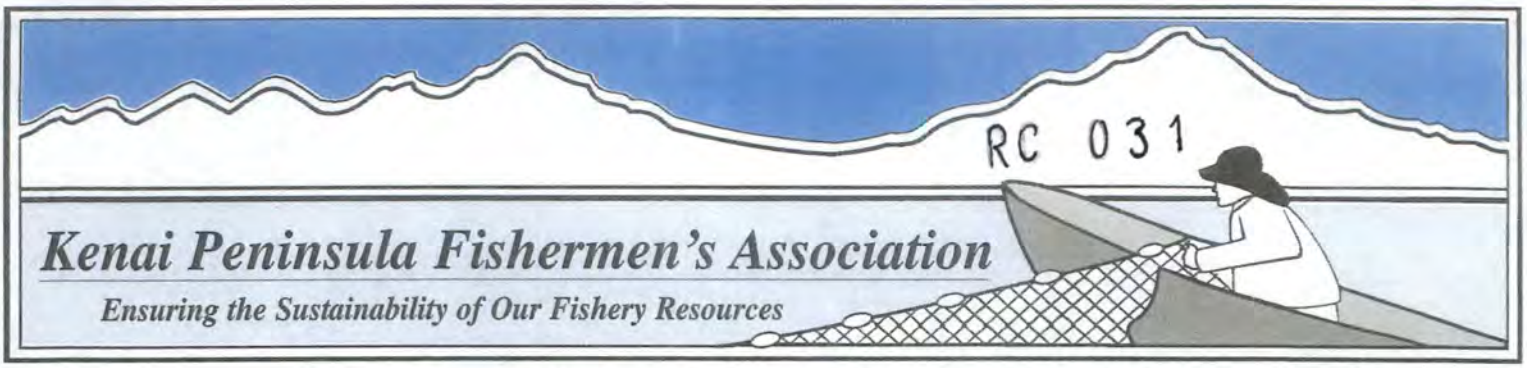

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January 10, 2017

To:

Alaska Board of Fisheries

Boards Support Section

P.O. Box 115526

Juneau, AK 99811-5526

Chairman Jensen;

The Kenai Peninsula Fishermen's Association (KPFA) has been in existence since 1954. We are the largest Cook Inlet (CI) member setnet representation group in south-central and a voice for many of the 734 active Commercial Fisheries Limited Entry salmon S04H permit holders.

The KPFA Board of Directors want to be clear with our testimony for this Kodiak regulatory meeting. We are not here to create contention with fishers in the Kodiak Management Area (KMA). Rather we acknowledge the rights of all Alaskans within the state's public trust to reap the rewards of well managed salmon fisheries.

We are also aware of the mandates expressed in *5 AAC 39.222 Policy for the management of sustainable salmon fisheries (SSFP)* and *5 AAC 39.220 Policy for the management of mixed stock salmon fisheries (MSSP).* In the MSSP (b) we understand that within the regulation, ...where *there are known conservation problems, the burden of conservation shall be shared among all fisheries... ,* and further, *... that the precise sharing of conservation among fisheries is dependent on the amount of stock-specific information available.*

KPFA recently became aware of two current genetics reports released in late December 2016 (FMS No. 16-11 *Genetic Stock Composition of the Commercial and Sport Harvest of Chinook Salmon in the Westward Region* & FMS No. 16-10 *Genetic Stock Composition of the Commercial Harvest of Sockeye Salmon in the Kodiak Management Area*) which appear to identify

significant harvested Cook Inlet bound stocks of sockeye and Chinook. We are in the process of analyzing the complete detailed data for specifics.

Our immediate response from our initial review is to recommend to the BOF, in light of the seven *stocks of concern of CI bound Chinook stocks* and *one stock of concern of a CI bound sockeye stock* is that the board, in conjunction with department fisheries managers in both the KMA and CI regions thoroughly review and make sound revisions to management plans to reflect clear, transparent and equitable conservation and allocation measures to avert any significant adverse burdens on south central stakeholders.

We highly support from the sockeye report a department statement, *"spatiotemporal migration trends of local and nonlocal sockeye salmon in these fisheries could improve run reconstructions, brood tables, and refine management of KMA."* We are confident that this conclusion should also apply to CI stocks.

We have reviewed the memorandum dated 01.08.17 from the Principal Geneticist, subject: Guidelines for MSA reanalysis under new objectives. The statement, *'Reporting group definitions are determined at the beginning of the project and are based on a combination of management and stakeholder needs'* would appear to be an arbitrary internal policy statement. For one who was very aware of and promoted this genetic analysis as a stakeholder I would object to the assertion that the program staff know what stakeholder needs are without having any public discussions. We would highly suggest that Chief Fisheries Scientist review NOAA Technical Memorandum NMFS-F/SPO-152 Prioritizing Fish Stock Assessments August 2015 for guidance.

Absent in these reports are specific origins of the samples. The baselines genetic maps included with this report identifies 39 well established Chinook identities within the CI region. I am told that all lab procedures and all sampling procedures were not compromised and that individual determinations for both sockeye and chinook was another mathematical step. Probably much more efficiently performed at the same time as the general regional assumptions were compiled. It is not clear to us who or why this was not completed for this report. We would request through the Commissioner's office that a written determination be submitted to the board as to why this was not pursued.

Some additional points:

*Considering that all non-Alaskan Chinook stocks are not within the jurisdiction and concern of the BOF in the western Gulf region and in the commercial harvest apportionment; 2014 CI 27%, Kodiak 20%; 2015 CI 32% Kodiak 32%; 2016 CI 33%, Kodiak 11% (KRA only excluding all non-Alaskan stocks).

*KMA (Kodiak, Chignik, Aleutian), sport and commercial harvests of Chinooks; 2014 34,623; 2015 83,225; 2016 55,060 (9,711 sport avg.)

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*Mainland and three other North Kodiak/Shelikof regions were not sampled for sockeye and estimates were not included in the total harvest of CI bound salmon.

*CI sockeye were present in the majority of test areas and at times exceeded the Kodiak harvest apportionment.

*nonlocal harvest of CI sockeye were present in all three years, containing 8%,37% and 30% of the sampled KMA harvest.

*Cook Inlet sockeye harvested reported in just the sample area (Chignik and Kodiak limited area); 2014 113,972; 2015 626,472; 2016 384,089.

* CI sockeye harvest estimates need to include % of sockeye total harvest not included in the published yearly estimate; 2014 53.3% could mean 120,810 an additional (234,782); 2015 44.8% could mean 555,155 an additional (1,181,627); 2016 37.6% could mean 288,835 an additional (672,924)

Of further concern to the BOF, it may be necessary to address the National Marine Fisheries Service (NMFS) review of CI for consistencies with the National Standards as it relates to the necessity of formulating a Fisheries Management Plan (FMP) and possible consultations required on implementing an Endangered Species Act (ESA) compliance process for the Cook Inlet Beluga Recovery Plan (CIBRP).

In conclusion, we believe the board should thoroughly review;

5 AAC 18.395 Retention of king salmon taken in a commercial fishery in its entirety and specifically (c) which applies to the avoidance of "large kings" in that this provision sunsetted as of December 31, 2016.

5 AAC 18.363 North Shelikof Strait Sockeye salmon Management Plan (a) ...while minimizing the directed harvest of Cook Inlet sockeye salmon stocks.

Proposal 65 5 AAC 18.332 Seine specifications and operations. KPFA is not supporting at this time any restriction to mesh size offered in this proposal. However, we feel that this may be considered a "*place holder*" in this discussion to further possible avoidance measures.

We want to thank the BOF in their efforts to manage complex state waters salmon issues and welcome discussions with any KPFA member in formulating solutions through open dialogue and healthy debate.

Thank you,

Representing the KPFA Board of Directors,

Paul A. Shadura II

Paul A. Shadura II - Board Director

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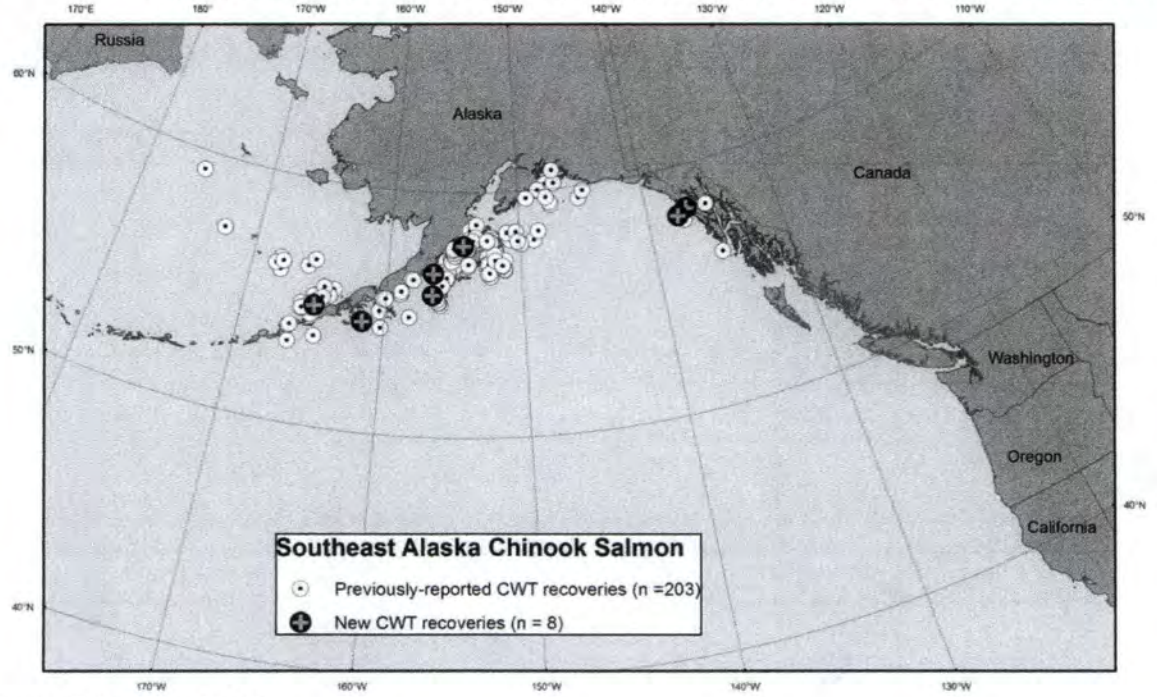
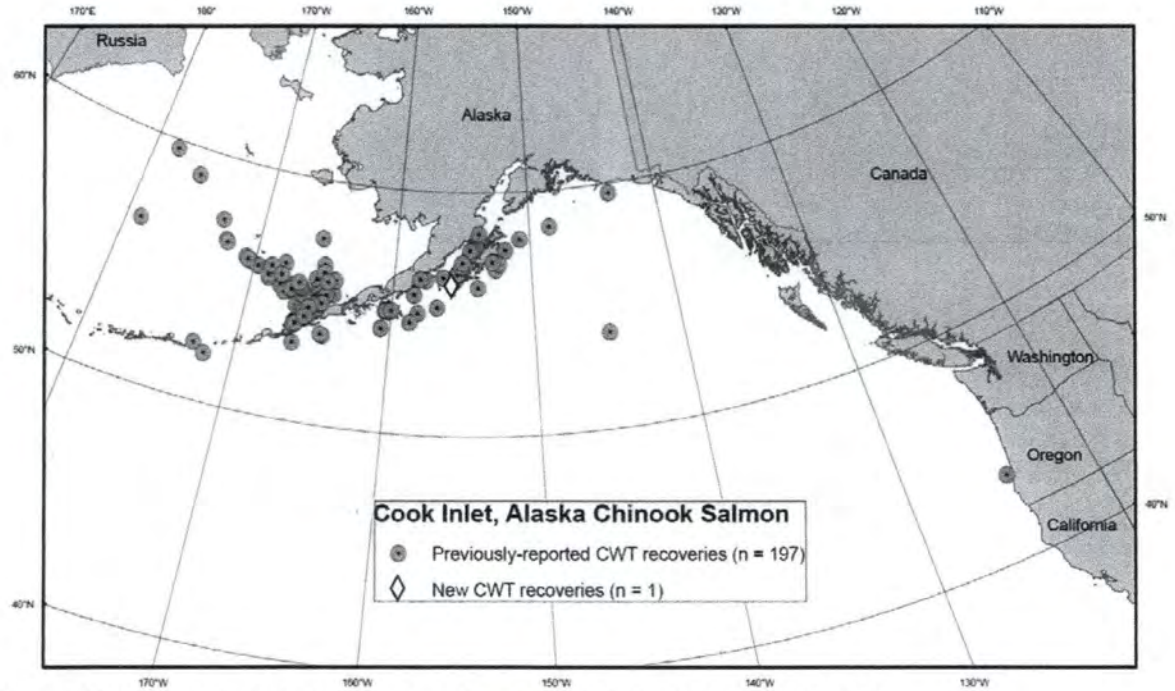
Figure 3-5 Ocean distribution for Southeast Alaska Chinook salmon from CWT recoveries in high seas commercial fisheries and research surveys, 1981 through 2012. Points reflect recovery locations.



Source: Celewycz et al. 2012

Figure 3-6 Ocean distribution for Cook Inlet Chinook salmon from CWT recoveries in high seas commercial fisheries and research surveys, 1981 through 2011. Points reflect recovery locations.



Source: NMFS Alaska Fisheries Science Center Auke Bay Lab, Adrian Celewycz, 10/27/2011.

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
NEWS RELEASE

Sam Cotten, Commissioner
Scott Kelley, Director

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2016 UPPER COOK INLET COMMERCIAL SALMON FISHERY SEASON SUMMARY

The 2016 Upper Cook Inlet (UCI) commercial harvest of approximately 3.0 million salmon was 12% less than the recent 10-year average annual harvest of 3.5 million fish (Table 1). The estimated exvessel value of the 2016 harvest of approximately $22.3 million was 23% less than the previous 10-year average annual exvessel value of $28.9 million. While all five species of Pacific salmon are present in UCI, sockeye salmon are the most valuable, accounting for nearly 93% of the total value during the past 20 years.

Currently, there are six sockeye salmon systems with escapement/inriver goals that are monitored in UCI (Table 2). Sonar was used to estimate sockeye salmon passage in the Kenai and Kasilof rivers, while weirs were operated at Larson, Chelatna, and Big (Fish Creek) lakes. Remote video technology was utilized to evaluate the sustainable escapement goal (SEG) at Packers Lake. For the 2016 season, escapement objectives were exceeded at two systems (Kenai River and Chelatna Lake), met at two systems (Kasilof River and Fish Creek), not met at one system (Larson Lake), and the final escapement will not be known for Packers Creek until all of the video is processed.

SOCKEYE SALMON

2016 Run Summary

The total 2016 UCI sockeye salmon run was estimated to be approximately 5.2 million fish, which was 27% less than forecast (Table 3). All UCI salmon runs in 2016 came in less than forecast; the Kasilof River total run estimate of 559,000 sockeye salmon was the smallest run to this system since 1995. The UCI commercial harvest of 2.4 million sockeye salmon was approximately 17% less than the 2006–2015 average annual harvest of 2.9 million fish, with higher harvests in 6 of the previous 10 years.

Sockeye salmon prices varied during the season, but based on an estimated average price of $1.50 per pound, the total exvessel value of the 2016 UCI sockeye salmon harvest was approximately $21.0 million, which was 93% of the total UCI exvessel value.

ALASKA Journal of Commerce (/)

ADFG predicts lowest sockeye salmon harvest in 15 years

By: DJ Summers (/authors/dj-summers),
Alaska Journal of Commerce
Post date: Tue, 11/15/2016 - 2:45pm

Cook Inlet setnetter Andy Hall, center, called the 2017 forecast for sockeye salmon "pretty alarming," (Photo / File / Peninsula Clarion)

Forecasts for Upper Cook Inlet sockeye salmon have dropped precipitously, just in time for the state's fishermen to have another beef with Alaska's fisheries managers in a few months.

"In 2017, a run of approximately 4.0 million sockeye salmon is forecasted to return to UCI with a commercial harvest of 1.7 million," reads an Alaska Department of Fish and Game release. "The forecasted commercial harvest in 2017 is 1.2 million less than the 20-year average harvest."

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
NEWS RELEASE

Sam Cotten, Commissioner
Scott Kelley, Director

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Date Issued: Nov. 14, 2016

2017 UPPER COOK INLET SOCKEYE SALMON FORECAST

The forecast of the 2017 Upper Cook Inlet sockeye salmon run is as follows:

	Forecast Estimate (millions)	Forecast Range (millions)
TOTAL PRODUCTION:		
Total Run	4.0	3.2–4.8
Escapement	1.4	
Commercial Harvest	1.7	
Other Harvests	0.9	

Forecast Methods

The major sockeye salmon systems in Upper Cook Inlet (UCI) are the Kenai, Kasilof, and Susitna rivers, and Fish Creek. Available escapement (spawner abundance), return, sibling, fry, and smolt data were examined for each system. Four models were evaluated to forecast the total run of sockeye salmon to UCI in 2017: (1) the relationship between adult returns and spawners, (2) the relationship between adult returns and fall fry, (3) the relationship between adult returns and smolts and (4) the relationship between sibling adult returns. Several forecast models were evaluated for each stock and age class. Models providing the smallest mean absolute percent error (MAPE) between the forecast and actual runs over the past 10 years were typically selected. Forecast model predictions were compared to evaluate uncertainty.

The return of age-1.3 Kenai River sockeye salmon in 2017 was forecasted using a sibling model. The sibling-model prediction of the return of age-1.3 salmon is based on the abundance of age-1.2 salmon that returned in 2016. A spawner-recruit model predicts the age-1.2 salmon return based upon the spawning escapement in 2013. The Kenai River returns of age-2.2 and -2.3 salmon were forecasted using sibling models based upon the abundances of age-2.1 and -2.2

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of
Fish and Game

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MEMORANDUM

TO: Bill Templin, Chief Fisheries Scientist Salmon
Division of Commercial Fisheries

DATE: January 8, 2017

FROM: Chris Habicht, Principal Geneticist
Gene Conservation Laboratory

SUBJECT: Guidelines for MSA reanalysis under new objectives

This memo outlines the criteria and process for providing a reanalysis of stock composition estimates for revised reporting groups after the completion of a genetic mixed stock analysis (MSA) project.

Reporting groups (aka "stocks") are groups of populations in a genetic baseline to which portions of a mixture are allocated with MSA. Reporting group definitions are determined at the beginning of the project and are based on a combination of management and stakeholder needs (project objectives), adequacy of the genetic baseline, genetic identifiability, and expectations of stock composition.

In some situations, stakeholders may request that the department provide stock composition estimates for reporting groups not originally used in the study design. These requests should be directed to the Chief Fisheries Scientist for Salmon for consideration by the department.

The Gene Conservation Laboratory developed guidelines for defining reporting groups over years of analyses and were formalized during the Western Alaska Salmon Stock Identification Project. The same criteria are applicable when determining reporting groups for new objectives. The following criteria and processes are provided for guidance when considering these requests.

Criteria

1. Stakeholder need (including ADF&G): Examples of new objectives that address additional stakeholder needs are: improving run reconstructions, informing management decisions, evaluating new information.

- Are new objectives in the best interest of the people of the State of Alaska?
- Do redefined reporting groups inform new objectives?

2. Representation in genetic baseline: The accuracy and precision of a reporting group's composition estimates are affected by the population samples used to represent the group in the genetic baseline.
   - Do the populations in the baseline adequately represent all populations in the reporting group?
   - Are adequate numbers of individuals (≥ 70) available for each population in the baseline to estimate allele frequencies?
   - Are adequate numbers of individuals (≥ 400) available in the baseline to represent genetic diversity within a reporting group?
3. Genetic identifiability for mixed stock analysis: The accuracy and precision of a reporting group's composition estimates rely on the ability to distinguish the populations representing the reporting group from populations in other reporting groups in the genetic baseline.
   - Can the revised reporting groups be correctly identified with adequate accuracy ($\geq 90\%$) in baseline evaluation tests?
4. Expected stock contribution to the mixture: Statistical sampling theory demonstrates that contributions from rare and uncommon stocks are often poorly estimated with cost-effective sample sizes (200-400 individuals). Error in estimating these small contributions will detract from accuracy and precision of other reporting group estimates.
   - Is the expected contribution of a reporting group within the fishery harvest adequate ($\geq 5\%$)?
   - Is the coefficient of variation (CV) of the contribution estimate reasonable small ($< 50\%$)?
5. Value of new information: Reanalysis for revised objectives using information from a project completed using a different design is not always straightforward. While sampling and laboratory cost will already be completed, defining new reporting groups, assessing the baseline, summarizing mixture compositions into new reporting groups, and reporting will require availability of staff and time (see Process below).
   - Is the additional information to be produced sufficiently valuable to invest additional resources?

Process

Reporting groups initially used in a study may be revised after the completion of the study to meet new objectives. The method for reanalysis involves the following steps:

1. Evaluation of revised reporting groups necessary to meet new objectives for the criteria above. This step requires:
   - Reorganization of the baseline populations into revised reporting groups,
   - Examination and testing of the baseline, and
   - Evaluation of baseline testing results by fishery experts.
2. Reanalysis of the output files from the original analysis using the revised reporting groups. This involves:
   - Computer analysis to estimate contributions from revised reporting groups, and

- Quality control of the process.

3. Reporting results of the reanalysis to achieve the new objectives. This involves:
   - Summarizing results from individual fishery strata,
   - Preparation of tables and figures presenting the new results, and
   - Production of a report addendum.