North Pacific Fishery Management Council

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MINUTES

204th Plenary Session
North Pacific Fishery Management Council
June 8–14, 2011
Nome, AK

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MINUTES

204th Plenary Session
North Pacific Fishery Management Council
June 8–14, 2011
Nome, AK

APPROVED: _____

DATE: 10/4/2011

The North Pacific Fishery Management Council met in Nome June 8–14, 2011. The following Council, SSC and AP members, and NPFMC staff attended the meetings.

Council Members

Eric Olson, Chair *(June 8 only)*
Dave Benson, Vice Chair
Sam Cotten
Duncan Fields
Dave Hanson
John Henderschedt
Roy Hyder
Dan Hull
Cora Campbell/Stefanie Moreland
Jim Balsiger
Don Rivard
Bill Tweit
ADM CC Colvin/Capt. Mike Cerne

NPFMC Staff

Gail Bendixen
Diana Evans
Jane DiCosimo
Nicole Kimball
Peggy Kircher
Chris Oliver
Maria Shawback
Diana Stram
Dave Witherell

Scientific and Statistical Committee

The SSC met from June 6th through June 8th, 2011 at Pioneer Hall, Igloo number 1, Nome Alaska.

Members present were:

Pat Livingston, Chair
NOAA Fisheries—AFSC
Robert Clark
Alaska Department of Fish and Game
Gordon Kruse
University of Alaska Fairbanks
Seth Macinko
University of Rhode Island
Lew Queirolo
NOAA Fisheries—Alaska Region
Terry Quinn
University of Alaska Fairbanks
Farron Wallace, Vice Chair
Wash. Dept. of Fish and Wildlife
Susan Hilber
Oregon Dept. of Fish and Wildlife
Kathy Kuletz
US Fish and Wildlife Service
Jim Murphy
University of Alaska Anchorage
Kate Reedy-Maschner
Idaho State University, Pocatello
Doug Woodby
Alaska Department of Fish and Game
Jennifer Burns
University of Alaska Anchorage
Anne Hollowed
NOAA Fisheries—AFSC
George Hunt
University of Washington
Franz Mueter
University of Alaska Fairbanks
Ray Webster
International Halibut Commisson

Advisory Panel

The AP met from June 6 to June 8, 2011 at Old St. Joe's Cathedral in Nome, Alaska.

Kurt Cochran	Becca Robbins Gisclair	Ed Poulsen
Craig Cross	Jan Jacobs	Neil Rodriguez
John Crowley	Bob Jacobson	Beth Stewart
Jerry Downing	Alexus Kwachka	Lori Swanson
Tom Enlow	Chuck McCallum	Anne Vanderhoeven
Tim Evers	Matt Moir	
Jeff Farvour	Theresa Peterson	

Attachment 1and 2 contain the public sign in register and a time log of Council proceedings, including those providing reports and public comment during the meeting.

Mr. Hull moved, which was seconded, to approve the minutes of the previous meeting from March/April 2011. Motion passed unanimously.

A. CALL TO ORDER

Chairman Eric Olson called the meeting to order at approximately 8:04 am on Wednesday, June 8, 2011, and noted with regret, and for family reasons, he would only be in attendance for Wednesday and that Dave Benson would be acting as Chairman in his absence.

Mr. Bill Tweit participated in the entire meeting in place of Phil Anderson, WDF Director.

AGENDA: The agenda was approved as published.

B. REPORTS

The Council received the following reports: Executive Director's Report (B-1); NMFS Management Report (B-2); ADF&G Report (B-3); NOAA Enforcement Report (B-4) USCG Report (B-5); USF&W Report (B-6).

Executive Director's Report:

Chris Oliver reviewed his written report. He reviewed the Council's comment letter on the National Bycatch report, and the Council briefly discussed it, noting that the State will choose to discuss its concerns directly with NMFS. Mr. Oliver also reviewed the Council Coordination Committee meeting and outlined all the relevant issues including the budget, marine coastal spatial planning, and NMFS' approval of SOPPS.

There was general discussion regarding the National Ocean Council's listening session. There was concern regarding the lack of Council input and it was generally agreed to discuss this issue further during the staff tasking agenda item.

Mr. Oliver introduced the GOA halibut PSC item, and Jane DiCosimo gave the staff presentation. She briefly reviewed the Action Plan to revise the GOA halibut PSC limits through the annual groundfish harvest specifications process. Darrell Brannan spoke to various impacts of regulations, and the timeline was discussed. It was generally agreed to take action on this item after public comment of the B reports.

Chris Oliver also discussed the National Ocean Council's strategic action plans and noted that the Council will be submitting comments by the deadline of June 30. Various Council members thanked the staff for taking the time to draft detailed comments and for responding to all the issues the Council manages.

NMFS Management Report

Glenn Merrill briefly thanked the Council, NMFS and their staffs for allowing him the opportunity to take the Assistant Administrator job. He reviewed his written report and the general status of actions. The Council had brief questions regarding timing and progress of various programs and amendments.

Doug DeMaster updated the Council on various Steller sea lion issues, and Jim Balsiger updated the Council on the status of the biological opinion Center for Independent Experts (CIE) review, and noted he had requested a hold on the CIE review until the Washington, Oregon and Alaska panel could discuss the biop and terms of reference. He noted that the CIE is reviewing the biop, and the written report will be completed sometime in September and available for public comment.

Commissioner Campbell noted she had attended the Washington/Alaska SSL Science Review Panel public meeting to hear from agencies and stakeholders on the draft findings and recommendations from its review on the biop. The panel will be holding another public meeting in Anchorage to take further comments on its findings before the report is finalized.

It was generally agreed the Council would discuss SSL items again during the staff tasking agenda item; specifically the ability to comment on a draft report before the final is published.

Melanie Brown from NMFS gave an update on the rulemaking on Arrowtooth flounder (ATF) maximum retainable amounts (MRA) in the BSAI ATF fishery and rulemaking on establishing separate OFLs and TACs for Kamchatka flounder. She noted that the fisheries are very similar, and both actions were rolled together. There were brief questions from the Council and clarifications regarding observer information and enforcement utility of observer information.

ADF&G Report

Karla Bush (ADF&G) provided the Council with a review of the State fisheries of interest to the Council and answered general questions from the Council Members.

NOAA Enforcement Report

Sherri Meyers gave the NOAA Enforcement report. She briefed the Council on lack of filled positions in the Alaska enforcement sector, and noted her concern that these vacancies will severely impact the ability for NOAA Enforcement to do its work effectively. There were brief questions from the Council, and Ms. Meyers noted that none of the fisheries are being impacted, but rather outreach efforts will be curtailed and cases will be closed without investigation due to lack of sworn personnel.

USCG Report

LT Tony Keene of the USCG provided the Coast Guard Enforcement Report and answered questions from the Council.

U.S. Fish and Wildlife Report

Don Rivard of the USFW gave a brief report regarding salmon bycatch and short tailed albatross. He noted that the Federal Subsistence Board had met and submitted public comment letters on both GOA Chinook bycatch as well as BSAI chum bycatch. He answered brief questions from the Council members.

City of Nome

Mayor Denise Michaels from the City of Nome addressed the Council, and welcomed the meeting attendees to the city and noted that Nome just celebrated its 110 birthday. She highlighted events and attractions in the area, and thanked the Council for holding its meeting in the area.

Public comment was taken on all B agenda items.

COUNCIL DISCUSSION/ACTION

It was generally agreed that GOA halibut PSC issues, as well as discussion on the CIE review will be covered under the staff tasking agenda item. Mr. Henderschedt noted that the solution proposed by NMFS for MRA enforcement for ATF and Kamchatka flounder is the direction the Council should proceed. If catch of Kamchatka flounder were to close to directed fishing, then neither Kamchatka flounder nor ATF could be used as a basis species for the purposes of retaining incidental catch. It was generally agreed.

Mr. Fields and Mr. Hull recommended the Council should wait to get comments on and direction for the Halibut PSC issue, most likely during the staff tasking agenda item.

C-1 Catch Sharing Plan

BACKGROUND

NMFS is developing a proposed rule to implement the halibut CSP for Area 2C and Area 3A recommended by the Council in October 2008. The proposed rule is currently scheduled for clearance and publication in June 2011. The CSP would establish an annual process for determining (1) commercial and charter halibut catch limits, and (2) harvest restrictions for charter anglers that are intended to limit harvest to the charter sector catch limit. The CSP includes a suite of charter harvest restrictions that would be specified and implemented by the International Pacific Halibut Commission (IPHC) prior to the beginning of the halibut fishing season. The most stringent charter harvest restriction under the CSP would limit charter anglers to retaining one halibut per day that is equal to or smaller than a maximum length. The maximum length limit would be calculated according to the method specified by the CSP regulations.

At this meeting, NMFS staff will provide an overview of the CSP proposed rule with respect to the maximum length limit calculations and describe the agency's approach for requesting comments on the maximum length limit calculation. The Council and the Scientific and Statistical Committee also will receive a report from ADF&G on the three proposed calculation methods.

Jane DiCosimo and Rachel Baker gave the staff report on this agenda item. Scott Meyer gave a report on three alternative approaches for selecting the maximum size limit for the halibut charter fishery in Regulatory Areas 2C and 3A, and fielded questions from the Council members. Pat Livingston gave the SSC report. Public comment was taken.

COUNCIL DISCUSSION / ACTION

Ed Dersham moved to have the Executive Director draft a letter from the Council recommending NMFS adopt the methodology described as the hybrid approach under the C-1 staff presentation in the final rule for the Catch Sharing Plan.

Mr. Dersham noted the letter should suggest the length distribution of retained fish from the most recent year when length was not constrained by a more restrictive length limit, should be used. He also noted he would not want this process to delay implementation of the catch share plan. Additionally, he would like to discuss alternatives/measures to develop other management measures to stay within the allocation.

There was brief discussion regarding alternative approaches to management, and it was agreed that the Council would discuss this issue during staff tasking.

Ms. Rachel Baker from NMFS noted that the proposed rule would be published and NMFS would solicit public comment this summer. She noted that she will be working with ADF&G staff in the final recommendations to the Secretary of Commerce, and does not anticipate further discussion or problems. Mr. Hull noted that this is the best approach to take at this time, but is concerned about the catch share plan and angler demand, and that the uncertainty about average weights is only a part of the catch share plan.

Mr. Henderschedt stated his support for the motion, and noted that although the Council did intend to limit charter harvest it had not anticipated catch limits at levels they are now. The Council wants to see a healthier charter industry.

Motion passed without objection

There was a brief discussion about predicting angler demand, and Mr. Dersham noted that there would be possible ways to control angler demand, which may be easier than predicting angler demand.

C-2 Crab SAFE

(a) Review and approve catch specifications for 4 crab stocks.

BACKGROUND
The Crab Plan Team met in Juneau, AK from May 9-13, 2011 to review draft BSAI Crab stock assessments and provide recommendations for OFL and ABC for 4 of the 10 stocks. There are 10 crab stocks in the BSAI Crab FMP and all 10 must have annually established OFLs. This year following approval of amendment 38 to the Crab FMP, to comply with Annual Catch Limit provisions, annual ABCs are recommended by the SSC. Six of the ten stocks will have OFLs and ABCs established following the summer survey information availability. Two of the ten stocks (Norton Sound red king crab and AI golden king crab) have OFL and ABC recommendations put forward at this time in order to have approved OFLs and ABCs prior to the summer fisheries for these stocks. The remaining two stocks (Adak red king crab and Pribilof Islands golden king crab) have OFLs recommended based on Tier 5 formulation (average catch) and OFLs and ABCs are recommended in the spring. The draft sections of the SAFE report introduction contain the OFL and ABC recommendations for these stocks. Recommendations and discussions of the other 6 stocks are included in the CPT Report. Now that final recommendations are made by the SSC in the fall it is no longer necessary to produce a draft SAFE report in the spring, thus only those sections for the stock recommendations at this meeting are contained here. There will be a single SAFE report produced in the fall which includes these sections rather than a draft in the spring and a final in the fall.

Diana Stram gave the staff report on this issue. Lori Swanson gave the AP report; Pat Livingston gave the SSC report, and there was no public comment.

COUNCIL DISCUSSION/ACTION

Mr. Tweit moved to accept the SAFE report and to adopt the OFLs and ABCs recommended by the SSC for Norton Sound red king crab, Adak red king crab, Pribilof Island golden king crab, and

Aleutian Island golden king crab. It was seconded by Mr. Henderschedt. Mr. Tweit noted that this is the first step in transitioning to the new schedule, and there may be a few small glitches as outlined by the SSC in the minutes. He noted that the State may make take a bit more time and make adjustments. Ms. Moreland remarked there are timing problems, and that the State of Alaska has been setting the GHL at an appropriate level. She addressed her concerns with the SSC recommendations and the inability for the State to have a feedback loop with the stock assessment authors. She encourages the Council and the SSC to address timing issues, and to work through the plan team stock assessment process more fully. **Motion passed without objection.**

Mr. Henderschedt added he would like have a discussion about catch accounting relative to weight vs. numbers of crab during the Staff Tasking agenda item.

Ms. Moreland recognizes that there has been more attention on crab stock assessment models, and to crab and the Crab Plan Tem, and that the State is investing on those improvements.

(b) Review data for Pribilof Island blue king crab rebuilding plan

BACKGROUND
The Council reviewed the public review draft EA/RIR/IRFA for a revised rebuilding plan for the Pribilof Islands blue king crab (PIBKC) stock at the April 2011 Council meeting. Council did not take final action at that time as modifications were made to the alternatives that were outside the scope of the original analysis. The Council also requested to review bycatch data from the entire Pribilof District prior to final action to evaluate whether bycatch from the entire district versus area 513 only changes the fisheries to which closures apply under the alternatives.

The PIBKC stock remains overfished. The purpose of this proposed action is to reduce the risk of overfishing the PIBKC stock by developing an amended rebuilding plan for this stock in compliance with the Magnuson-Stevens Act and the national standard guidelines.

Five alternatives are considered in this analysis. Four of the alternatives consider time and area closures to better protect the PIBKC stock. The fifth alternative considers trigger caps and associated time and area closures in groundfish fisheries which have contributed historically to bycatch of this stock. Alternatives 2-5 retain all of the current protection measures in place for the PIBKC stock and apply additional measures as described in the specific alternatives and options. Analysis of the impacts of these closure configurations on the rebuilding potential for the PIBKC stock shows limited effect on rebuilding between the ranges of alternative closures. However, the trigger cap and/or closures may protect against any additional catch of this depleted stock and prevent overfishing on an annual basis.

This analysis will be included in the revised public review draft available in September 2011 (for final action in October 2011). Staff will provide further discussion of the implications of allocation schemes during presentation at this meeting should the Council wish to make any modifications prior to final action.

Diana Stram gave the staff report on this issue and answered questions from Council members. Lori Swanson gave the AP report, and the SSC did not address the issue. Ed Poulsen gave public comment on this agenda item, and gave a brief report on industry progress on the Right of First Refusal issue, the Crab Rationalization 5 year review, and a recent crab crew/industry meeting.

COUNCIL DISCUSSION/ACTION

Dr. Stram noted the default assumption absent Council direction is that the flathead sole fishery would no longer be considered, because it does not meet the threshold within the Pribilof district.

The Council had a lengthy discussion. Mr. Tweit commented that the AP suggested including suboptions, but he is not prepared to do that and is concerned about poor data which can't be used to determine what the effects may be of any creative solutions. He noted he is not ready to look at smaller needs until the larger picture can be developed. He would like to see how the observer program would handle increased coverage for this fishery, but is not willing to have this distract getting the restructured observer program in place.

Mr. Merrill noted his shared concerns about expanding options and the general complexity of trying to manage multiple very small caps. He would encourage Ms. Stram to expand observer coverage in these areas.

Mr. Henderschedt commented that it may not be a question of observer coverage, but rather ensuring that the catch accounting system does not increase the amount of management uncertainty.

C-3 Essential Fish Habitat

(a) Review Nunivak Island-Etolin Straits-Kuskokwim Bay Habitat Conservation Area Boundary

BACKGROUND
In July 2007, the Council adopted Amendment 89 to the BSAI Groundfish FMP, Bering Sea Habitat Conservation measures, which created a number of habitat conservation areas in which bottom trawling is prohibited. One of these areas is the Nunivak Island-Etolin Straits-Kuskokwim Bay Habitat Conservation Area.

During the Council's consideration of Amendment 89, the boundaries for the Nunivak HCA were developed in close consultation with an industry and Association of Village Council Presidents (AVCP) working group. Communities and industry agreed on a southern boundary line for the habitat conservation area, which was subsequently established in regulation. The flatfish industry members committed to continued work with the AVCP communities in an ongoing process to communicate and share information on fishing activities and scientific information about the area, and if appropriate, to consider additional protection of subsistence uses and resources for the affected communities. An agreement was reached in March 2007.

As part of the Council's final motion adopting the closure, the Council agreed to review the boundary line developed for the Nunivak HCA in four years, and to consider whether further action is appropriate. That boundary review is the subject of this agenda item. Members of the public have the opportunity to inform the Council whether there is any conflict concerning the existing Nunivak HCA boundary, or whether further action or additional protection for subsistence is needed.

Options for Council action could be to initiate analysis of a new boundary or other protection measure, to take no action, or to request further information prior to initiating an action.

Nicole Kimball gave the staff report on this agenda item. Lori Swanson gave the AP report, the SSC did not take up this issue, and public comment was taken.

COUNCIL DISCUSSION/ACTION

Given public testimony supporting postponing this agenda item, **Ms. Moreland moved that the Council reschedule this topic in order to allow interested parties to have further opportunities for discussion. The motion was seconded by Glenn Merrill.** It was generally agreed to discuss the timing of this issue during staff tasking. Mr. Fields noted that he would like to move ahead with the issue regardless if there is no resolution by December. Mr. Henderschedt noted his support for the motion and thanked the Bering Sea Elder's Group, AVCP and AMCC for gathering information and will be looking forward to the next report. **The motion passed without objection.**

(b) Review development of the Northern Bering Sea Research Area (NBSRA) Research Plan

BACKGROUND
The Alaska Fisheries Science Center (AFSC), at the request of the Council, is developing a scientific research plan for the NBSRA, to study the effects of bottom trawling on the benthic community. The NBSRA was established by the Council, became effective in 2008, and is currently closed to bottom trawl fishing. The primary goals of the plan would be to use the research area to investigate the effects of bottom trawling on bottom habitat, and provide information to help with developing future protection measures in the NBSRA for crab, marine mammals, endangered species, and the subsistence needs of western Alaska communities. The AFSC is currently developing the research plan.

An update on the research plan progress will be presented by Dr. Cynthia Yeung, the AFSC project lead for its development. Background materials were distributed to the Council in mid-May. Dr. Yeung will present an outline of the research plan to date, and information on designing trawl impact studies. Dr. Yeung will also provide a summary of relevant information from the northern Bering Sea section of the 2010 AFSC RACE bottom trawl survey.

At this meeting, the Council is scheduled to review progress on the development of the Northern Bering Sea research plan and provide feedback to the AFSC. In particular, comments and recommendations are sought from the Council on the outline of research plan, as it will be the framework for realizing the full research plan.

Nicole Kimball gave a brief overview of this agenda item, and Dr. Cynthia Yeung gave a presentation on progress on the research plan and answered questions from the Council. Lori Swanson gave the AP report, and Pat Livingston gave the SSC report. Public comment was taken.

COUNCIL DISCUSSION/ACTION

The Council had brief questions regarding research funding and priorities for future years. Dr. Doug Demaster noted that the Science Center staff can develop a whitepaper with additional information and input to help the Council evaluate options for moving forward with the NBSRA research plan. There was discussion regarding continuation of development of the research plan in light of reduced resources. (The Council recessed and re-addressed this issue the next morning.) **Mr. Henderschedt moved to request a compilation of background information on the northern Bering Sea ecosystem, previous and ongoing relevant research in the northern Bering Sea, chronic or acute effects of bottom trawl studies, and outcomes of the 2010 and 2011 science and community and subsistence workshops. This background should be put into a white paper, along with a description of the areas within the**

NBSRA likely to be attractive in the future to commercial trawling interests, in order to help focus any subsequent outreach to, and input from, northern Bering Sea communities. The white paper should also provide some discussion of the feasibility of conducting additional research into the acute and chronic effects of trawling in the northern Bering Sea region in the existing Modified Gear Trawl Zone. His motion was seconded.

Mr. Henderschedt noted that this is not a high priority for Council action, nor does it need to result in subsequent action. He spoke to his motion noting that the booklet presented in public testimony, outlining subsistence areas of interest is useful, and moves the process ahead in a positive direction. Additionally, he noted that in Amendment 89, the Council precluded fishing in the NBSRA until a research plan was in place to guide commercial fishing. His intent of this motion is to leverage the research that has happened so far, and to hopefully focus any development of a research plan in the future.

There was lengthy discussion regarding what should be included in the discussion paper. It was generally agreed that staff will also categorize areas within the NBSRA that are likely to be attractive in the future to commercial trawling interests, both in terms of target stock distribution and habitat type, in order to help focus outreach to, and input from, northern Bering Sea communities. Additionally, the paper will consider to what extent trawl impact research could be conducted in the Modified Gear Trawl Zone, adjacent to the NBSRA, which is currently open to bottom trawling with modified gear. It was also agreed to try and keep the agenda item on schedule. **The motion passed without objection.**

C-4 GOA Chinook salmon bycatch

BACKGROUND:
This amendment package evaluates amending the GOA Groundfish FMP to create a prohibited species catch (PSC) limit for western and central GOA pollock fisheries, which, once reached, would close the affected fisheries. At the March/April meeting, the Council identified a preliminary preferred alternative for this action.

The preliminary preferred alternative identifies a PSC limit of 22,500 Chinook salmon for the western and central GOA pollock fisheries combined. This limit would be apportioned between the two areas based on a combination of the proportional historic pollock TAC and historic average Chinook salmon prohibited species catch, using the time series 2001-2006 and 2008-2009. The years 2007 and 2010 were dropped from the time series, because these were abnormally high bycatch years in the central and western GOA, respectively, and inclusion of these years biases the apportionment calculation. This calculation results in the following annual PSC limit allowances for the two areas:

Central GOA: 15,816
Western GOA: 6,684

Additionally, the preliminary preferred alternative would implement an interim observer requirement of 30% coverage for trawl vessels under 60 ft, while directed fishing for pollock in the central or western GOA. The interim requirement would expire once the observer restructuring program is implemented (currently targeted for January 2013), because that program also provides for observer coverage on vessels under 60 ft. All vessels would be required to retain all salmon while directed fishing for pollock, and NMFS will work with the industry to improve observed and extrapolated Chinook salmon estimates and their timeliness. The preliminary preferred alternative also specifies reduced PSC limits for the two areas in the implementation year, if the PSC limit should be implemented mid-season.

At initial review, the Council requested information from NMFS about Chinook salmon sampling and sample analysis for stock of origin. Dr. DeMaster has written a letter, on behalf of NMFS, responding to the Council's questions. The letter provides information about recent improvements to the Chinook salmon sampling protocol (beginning in 2011), and the timing of genetic analysis of these samples, which will supplement the available information on the presence of particular Chinook salmon stocks encountered in the GOA trawl fisheries. NMFS also notes that requiring full retention of salmon, which is included in the preliminary preferred alternative in this analysis, is one of the key prerequisites to be able to estimate the stock composition of GOA Chinook salmon bycatch in the future.

Note, in December 2010, the Council initiated two amendments to address GOA Chinook salmon bycatch. The first, the expedited amendment package, is the subject of final action today. A regular-track amendment package was also initiated to address Chinook salmon bycatch management more comprehensively, in all the GOA trawl fisheries. Originally, mandatory salmon bycatch cooperatives were part of the expedited amendment package, but at the March/April meeting, the Council was informed that administrative requirements are likely to limit the effectiveness of the cooperatives as proposed. In removing the cooperatives from the expedited amendment package, the Council resolved that alternative tools would be evaluated in the longer term package.

Diana Evans gave the staff report on this agenda item. Darrell Brannan provided a report on the economic impacts of the actions and measures included in the analysis. Martin Loefflad and Jeff Guyon gave an update on AFSC sampling procedures. The SSC did not discuss this agenda item. Lori Swanson gave the AP report, and public comment was taken.

COUNCIL DISCUSSION/ACTION

Commissioner Campbell distributed and read a written motion with an attachment explaining the calculations for mid-year implementation. (Motion and calculations are attached as Attachment 5) The motion was seconded by Mr. Cotten.

Ms. Campbell spoke to her motion. She noted that the changes to the problem statement more accurately reflect what action the Council is taking. She chose the PSC limit number of 22,500, which, according to the analysis, will achieve OY and minimize bycatch, while preventing the type of excessive bycatch seen in 2010. She remains optimistic that the restructured observer program will be implemented in 2013, but if the full program will not be implemented, then observer regulations as listed in the motion will be in effect.

Mr. Henderschedt moved to amend the following, which was seconded:
Under Component 1, PSC limit: change from 22,500 to 25,000 Chinook salmon;
Under apportionment limit, strike the selected option and change to: CGOA, 18,316; and WGOA 6684; and under mid-year implementation change CGOA from 7710 to 8929.

Mr. Henderschedt spoke to his motion. He noted through extensive examination of the PPA, flaws have been identified with the PPA in terms of the overall PSC limit amount and the distribution of the PSC limit between the WGOA and CGOA. In the PPA, the WGOA cap falls within the range of historic bycatch rates, but in the CGOA it falls outside of the range, so it is more constricting. Additionally, there are challenges in trying to get right numbers: challenges of uncertainty; short fisheries, timeliness of data, observer coverage, spatial and temporal dispersion. In reviewing all these, his motion more appropriately addresses the job of reducing Chinook bycatch in CGOA, while maintaining stability in communities that process that catch.

Mr. Dersham noted he will be supporting the amendment; however the numbers are at the upper limit of his preferred range. He does not see a significant change in a smaller number, but can see where the difference will have an impact on CGOA and the community of Kodiak.

Mr. Balsiger noted the amendment balances WGOA and CGOA PSC limits, considering the variability in pollock numbers. He reminded the Council these numbers will not allow business as usual and will provide the incentives for the fleet, and incentives for the Council, to provide tools to reduce bycatch.

Mr. Cotten is concerned that the higher PSC limit will reduce incentive to improve behavior.

Mr. Hyder will support the amendment, although he noted he was more comfortable with the AP's original motion.

Mr. Rivard noted that the number chosen is already higher than the last 8 year average, but will agree to 22,500 as a first step.

There was general discussion regarding the need to minimize bycatch and at the same time the obligaton to achieve optimum yield.

Mr. Fields noted his concern that the higher number has the appearance that Council is stating pollock is more important than Chinook. Commissioner Campbell reminded the Council that state managed fisheries are restricted for much less than 2500 fish, and to keep in mind potential restriction to salmon users.

Mr. Hull reminded the Council that the PPA is intended to focus comments on review of analysis, and to provide notice to public and that it is not yet a final decision. Mr. Benson noted that the larger numbers provide a buffer for uncertainty.

The amendment to the motion passed 7/3, with Cotten, Campbell, and Fields objecting.

Mr. Fields spoke to the main motion, noting that it is a difficult amendment package and the bycatch is too high. He expects there to be improvement in the rates relative to the learning curve of the fleet as new measures are implemented. He is concerned about bycatch in the non-pollock fleet. Mr. Fields said he is encouraged by NMFS formulating a robust sampling protocol, and increasing observer coverage that will provide more information about stocks.

Mr. Henderschedt agrees the Council's main goal is to minimize bycatch, while achieving a sound, conservation result. He remains confident that controls and constraints will achieve all objectives. Mr. Cotten noted that the Council has made a good start, and they have provided initial steps and tools for action.

Mr. Dersham noted that observer program changes will be good, and remarked that the motion does a good job of addressing balance between the national standards.

Mr. Tweit noted that the Council had to put something in place in an expedited fashion, and that a broader suite of measures may take a few years. Mr. Rivard noted that his concern is the higher PSC limits than what was in the original PPA.

Ms. Campbell believes this is an interim approach; not an appropriate long term management for these fisheries, and not an appropriate bycatch level. She cited challenges for the fleet in gear modifications,

experimental devices, education, etc. She strongly encouraged the Council members to follow up this package with more comprehensive tools and with more informed and documented effects from this action. Mr. Balsiger noted that this is a big step, and that the Council is starting to put a bycatch limit in place.

Mr. Tweit moved, which was seconded, that the Council deems proposed regulations that clearly and directly flow from the provisions of this motion to be necessary and appropriate in accordance with section 303(c), therefore the Council authorizes the Executive Director and the Chairman to review the draft proposed regulations when provided by NMFS to ensure that the proposed regulations to be submitted to the Secretary under section 303(c) are consistent with these instructions.

Mr. Tweit noted that the Council can opt to review entire package of regulations before it is submitted to the Secretary, or Council can request the Executive Director and Chair to review the regulations on behalf the Council members, and deem them consistent with Council intent.

Amendment passed without objection.
Amended main motion passed 8/2 with Fields and Cotten in objection.

C-5 Initial review of BSAI Chum Salmon Bycatch analysis

BACKGROUND
At this meeting the Council will take initial review of the draft EA/RIR/IRFA for the BSAI non-Chinook (chum) Salmon Bycatch Management analysis. The draft analysis was mailed to you on May 16th. The analysis examines four alternatives to reduce chum salmon bycatch in the Bering Sea pollock fishery.

Some additional background sections for the EA are attached. These materials provide additional information to be presented in conjunction with the draft analysis at this meeting and will subsequently be folded into the final public review draft analysis, scheduled for review in late 2011. The draft alternatives for the chum salmon bycatch measures include two different alternative time/area triggered closure configurations. The first was developed by staff in 2008 with ongoing review and modification by the Council, while the second results from work following the December 2009 Council meeting per Council request for staff to develop new candidate closure areas. This was developed further and finalized with complete data through 2010 during the February 2011 Council meeting. The purpose of this appendix is to document the development of the monthly closures proposed under Alternative 3.

Some additional sections are included to supplement the RIR, which will be folded in the next iteration of the RIR for public review. Two additional sections to Chapter 3 are included. This information builds upon the RIR summary contained in the executive summary of the EA/RIR provided in the document (and as Item C-5(a)). This information will be combined into one executive summary for the public review draft analysis, currently scheduled for late 2011.

At this meeting, the Council is scheduled for initial review of the draft EA/RIR/IRFA. The Council took preliminary review of the analysis in February 2011. The Council modified its problem statement at that time and revised the suite of alternatives. At this June meeting, the Council may wish to revise the suite of alternative management measures under consideration, request further data and/or analysis, and/or select a preliminary preferred alternative (PPA). The Council is not required to select a PPA and may wait until final action to indicate their preferred alternative (PA). Any modifications recommended by

the Council at this meeting will be analyzed in the next draft analysis, prior to it being released for public review. The Council has tentatively scheduled this action for final action in October 2011, but may modify that schedule at this meeting.

Diana Stram gave the staff report on this agenda item. Sarah Elgin gave an overview of the Salmon Donation Program; Dr. Jim Ianelli gave a report on the Environmental Assessment along with Dr. Alan Haynie; Nicole Kimball gave the Outreach Report. Scott Miller gave the RIR portion of the staff report, and Nicole Kimball and Ruth Christiansen gave an update on subsistence and importance of further usage of chum salmon in Western Alaska. Jim Magadantz provided information on subsistence usage in the Kotzebue and Nome subdistricts. John Linderman, ADF&G and Mary Grady from NMFS provided an update on tribal consultation efforts.

The AP gave their report, the SSC had given their report earlier, and public comment was taken.

COUNCIL DISCUSSION/ACTION

Commissioner Campbell made a motion based on the AP motion which is attached to these minutes as ATTACHMENT 6. The motion was seconded by Mr. Henderschedt.

Ms. Campbell spoke to her motion, thanking those who gave heartfelt testimony, and noted the difficulty for analysts in putting a dollar value to the subsistence fishing and lifestyle. She noted the revisions of the options under consideration to add an option to apply only in June and July, because the chum bycatch during that time has a higher incidence of Western AK bound stocks.

Alternative 3 was removed. Elements of that alternative (triggered area closure) were combined with Alternative 4 to have area closures to which the fleet would be subject regardless of RHS participation.

There was general discussion and clarification on the motion.

Mr. Henderschedt noted that the structure should be be adaptive to new data as we move forward with this program. Ms. Campbell noted the Council can address revisions to the hot spot system as it gets closer to the regulation process. She also noted that elimination of the RHS system under any alternative would be unlikely because it has been shown to work, so the motion re-directs staff effort to focus on likely outcomes.

There was a brief discussion of Western Alaska stocks, and Ms. Campbell noted that while the analysis may give information on commercial salmon fisheries managed by the State, the discussion must focus on areas of action that are under Council's authority.

Mr. Tweit noted his support of the motion, and that it is responsive to the high level of public comment. He thanked those in attendance for speaking and noted that it helps the Council meet the needs of subsistence and commercial fishermen. Mr. Tweit emphasized that the Council should give the pollock fleet the tools to do the best job they can to avoid chum salmon.

Mr. Henderschedt clarified that the agency and industry will have a chance to examine what changes may be made to the RHS program. As staff develops the analysis, his hope is that those people who have been involved will be consulted to share their expertise. Mr. Henderschedt expressed appreciation for public involvement, and noted that the Council has an obligation to balance all National Standards, and the testimony of the public will be in the minds of the Council members as they move forward.

Mr. Hull noted his responsiveness to input from public, and thanked the staffs of all the agencies. He acknowledged the importance of subsistence uses in moving forward with this analysis.

Mr. Fields noted his concern regarding Area M salmon fisheries, and that it is not a Council issue. He noted what the Council does with the pollock fleet is a component of Chum salmon concerns in Western Alaska. He noted that he will be discussing the potential need for additional outreach during the Staff Tasking portion of the agenda.

Mr. Dersham noted his concern regarding cumulative impacts, and keeping it in balance with the rest of the analysis. Mr. Cotten thanked those that gave public comment and noted his support of the motion. **Motion passes without objection.**

D-1 d Research Priorities

BACKGROUND

The Magnuson-Stevens Act requires the Council to adopt a five-year research plan each year. The Council adopted its most recent five-year research plan in October 2010 (Item D-1(d)(1)), based on recommendations from its four Plan Teams, the Scientific and Statistical Committee, and the Advisory Panel. At this meeting, the Council will update its five-year research plan.

The recommendations from the Joint BSAI and GOA Groundfish Plan Teams were contained in the previously adopted research priorities and revised ones are not available within this cycle due to the timing of the groundfish plan team meetings. These will be included in next year's research priority cycle. Recommendations from the Crab Plan Team (Item D-1(d)(2)), and Scallop Plan Team (Item D-1(d)(3)) are attached (note the Scallop research priorities are shown stricken-out from the previous years for clarification on which were addressed and which remain priorities). Also attached (Item D-1(d)(4)) are the research priorities for essential fish habitat (EFH) research. Recommendations from the SSC and AP will be provided during the meeting.

Diana Evans gave a brief report on this agenda item and noted the SSC's recommendations from its minutes which had been given earlier. Lori Swanson gave the AP report, and public comment was heard.

COUNCIL DISCUSSION/ACTION

Mr. Tweit moved, which was seconded, to adopt the research priorities as referenced by SSC, (pages 18-26 of their June 9, 2011 minutes) with FIS meaning Fishery independent survey instead of fishery independent stock assessment.

Mr. Tweit spoke to his motion, noting that the SSC has improved the utility of the 5 year list: the categorization into immediate concerns and ongoing needs; which priorities are underway and which have not been started. He commented that the priority listing is a good tool to track how the Council is meeting research needs. Mr. Fields stated that the priorities can provide the background the Council can use to make decisions.

There was brief discussion regarding adding additional priorities. **Mr. Hull moved to amend the motion by adding under "Immediate Concerns, Fisheries, Fish and Fisheries Monitoring"**

Investigate factors that affect angler demand in the guided angler sector of the halibut fishery resulting from regulation changes or general economic conditions. Mr. Hull spoke to his motion, noting that management of halibut fisheries is a research area that needs more work, and the need for more understanding of demand is an area of research according to public comment from the guided angler

sector, especially as the Catch Share Plan comes into effect in 2012. There was general discussion on timeline of priorities, and it was generally agreed that putting an item on a list does not guarantee timing placement, but does influence research within the region.

Mr. Hyder commented that the research should not focus solely on guided charter halibut in isolation; however, we should look at the market in a more holistic way, with other fisheries and impacting angler behavior that falls outside guided sport fishing and its effects. It was generally agreed to begin with guided sport halibut, and expand the recommendation at a later time. **The amendment passed without objection.**

The amended main motion passed without objection.

Mr. Henderschedt clarified that this is not a to-do list, however, it is generally useful for research and research funding. Tasking analysis and identifying priorities are very different from research priorities.

D-2 Staff Tasking

BACKGROUND
The Council may wish to discuss priorities for completing ongoing projects, as well as any new tasks assigned during the course of this meeting.

We also received a request (attached) from the Alaska Inter-Tribal Council requesting that the Council once again consider nominations for Habitat Areas of Particular Concern (HAPC). In my response letter (attached), I agreed to pose the question of reopening HAPC nominations and reinitiating the HAPC process to the North Pacific Fishery Management Council in June during staff tasking. The Council may wish to respond to this request. In October, the Council is scheduled to make initial review of the analysis for HAPC areas of skate egg deposition that resulted from the 2010 HAPC nomination process. The HAPC process is scheduled to occur every 5 years to coincide with EFH 5-year reviews, but does not preclude the Council from designating HAPC priorities out of cycle when appropriate.

Chris Oliver gave the staff report on this agenda item, and reviewed both the items for the discussion in the notebooks, and the list of items the Council had discussed during the meeting to be taken up during this agenda item. There were brief clarifications on specific items, and the three meeting outlook was discussed.

Lori Swanson gave the AP report, and public comment was taken.

COUNCIL DISCUSSION/ACTION

Mr. Cotten moved to approve the minutes from the March/April 2011 meeting. The motion passed without objection.

GOA Pollock Season Discussion Paper
Mr. Cotten moved to have staff draft a discussion paper on GOA pollock seasons, and the potential of combining the D season allocation into the A, B and C seasons. The motion was seconded.

Mr. Cotten spoke to his motion, noting that the bulk of salmon bycatch takes place in the D season. He noted that he is looking for whether this change can be done without an ESA consultation, or a SSL issue. There was brief discussion, and Mr. Henderschedt noted it may be better to tackle sea lion measures

directly, and to investigate how much flexibility there is in seasonal apportionments. Mr. Fields noted his concern that a broader approach may be more likely to trigger SSL issues, and suggested specifically designating the Western GOA and pollock. Mr. Cotten noted the primary interest is WGOA. **The motion passed unanimously.**

CDQ Review
Ms. Smoker briefly reviewed the legal issues in an upcoming CDQ review. She noted that the State of Alaska has a primary role in evaluation and determination of criteria specified by Congress.

Emergency Relief package
Mr. Merrill briefed the Council on the timeline, and noted it will not be done by January 2012, but it will be implemented at the beginning of the 2012/2013 opilio fishery.

Revisions to National Standard Guidelines
Mr. Tweit noted that the Council should draft a letter in response to potential revisions to the National Standard guidelines, which describe the Council's management framework in regard to safety at sea. As part of the comment letter, the Council should note that a safety committee would be redundant because of the Council's active enforcement committee which addresses the safety at sea issue.

NBSRA workshop
Ms. Moreland suggested the Council provide NMFS flexibility in continuing the scheduled community and subsistence workshop, or waiting until a discussion paper or white paper is fully drafted. It was generally agreed that NMFS will schedule a workshop should it be necessary.

Tribal Consultation and HAPC
Mr. Henderschedt noted there have been various letters submitted on re-initiating the HAPC process and requesting tribal consultation. It was generally agreed that individuals can provide nominations for HAPC at any time. He does not think it's the Council's role to make a decision on Tribal Consultation. Mr. Fields noted he is troubled by the ambiguity over tribal consultation responsibility between NMFS and the Council, **and moved to request a letter of clarification from NMFS legal counsel of tribal consultation and guideline principles relative to that consultation. The motion was seconded by Mr. Cotten.** Discussion continued. Mr. Balsiger noted that although writing the letter won't hurt, it won't help, and emphasized this issue has been an ongoing concern. Mr. Tweit noted that the Council should avoid government to government discussion on this issue, specifically as it is being addressed on a national scale. Mr. Hull supports the motion, and Mr. Benson noted that drafting the letter is not counter-productive, just pressure to spur action. Mr. Henderschedt noted that the letter is a formal process, and not part of Council outreach, and does not determine how the Council interacts with its stakeholders. **Motion passed 7/3 with Henderschedt, Tweit, and Balsiger objecting.**

Crab Plan Team Appointments
Ms. Moreland moved to nominate Dr. Steve Martell to the Crab Plan team. Motion passed without objection.

Crab Catch Accounting
Mr. Henderschedt moved that Council request preparation of discussion paper examining the implications of transferring crab catch accounting as it applies to PSC limits as it moves from weight vs. numbers. The motion was seconded by Mr. Tweit. Mr. Henderschedt spoke to his motion, noting that the Council heard during public testimony that there were benefits in being able to take initial data in weight and continue through in weight vs. numbers of crab in accounting for bycatch. There may be hidden issues in how we account for bycatch by area and by fishery, and that would be discovered in

the whitepaper. It was generally agreed that ADF&G would likely not be involved, at least in the initial stages. **The motion passed without objection.**

BSAI chum bycatch timing
Ms. Moreland commented on the timing on BSAI chum salmon bycatch, noting that there will be new calculations of area closures, and staff availability will determine that 2012 will be a more reasonable forecast for completion. It was generally agreed, and stated the Outreach Committee may want to also discuss this issue.

Halibut PSC catch limit
Mr. Hull moved, which was seconded, to:
Adopt the action plan an analytical outline, with 2 exceptions:

- **Proposed changes to problem statement be forwarded to Council for consideration in October**
- **Alt 2, option 2, and suboption B2 for AFA CV Amendment80 and rockfish program sideboards be retained.**

He spoke to his motion, and noted that it is helpful for informing Council's discussion in October about how to proceed. The changes to the problem statement are technical language changes and minor edits. The goal is to fulfill the original intent of sideboards, and describe decision points the Council needs to consider in October, noting complexities of sideboards and seasonal apportionments.

There was brief discussion, and clarification from staff, and the **motion passed without objection.**

IPHC Migration Model
Mr. Tweit moved, which was seconded, to send a letter to IPHC requesting their assistance in a workshop hosted by Council to review broader migration model, growth models, and cooperation from outside sources. The motion was seconded by Mr. Henderschedt. Mr. Tweit noted that a review panel format workshop would be beneficial. There was discussion regarding the workload and schedules of all agencies involved, and understood that scheduling a mutually agreeable workshop may be challenging. It was generally agreed that the SSC would review proceedings from the workshop. **The motion passed without objection.**

Charter halibut management measures.
Mr. Dersham moved, which was seconded, to have staff draft a discussion paper to consider alternate management measures for the Charter halibut fleet in times of low exploitable biomass. Process is to occur within the CSP described allocation for the charter fisheries. The goal of this process would be:

1. **Reduce management uncertainty in the annual charter harvest**
2. **Mitigate negative economic impacts like those occurring currently in 2C halibut charter fishery.**

The Council also requests a Committee be formed by the chairman and executive director named the "Charter Management Implementation Committee" with the goal of meeting after August 2011, to discuss these issues and receive stakeholder input. The Council considers development of this issue to be a high priority. Mr. Dersham spoke to his motion, noting that the committee has a narrow focus to as-dated management measures from within the allocation. It is not to delay implementation of the CSP, and intended only to be a trailing process, and to not talk about allocation. There was discussion regarding timing of discussion paper and review by the Committee. It was generally agreed that staff would make the first draft then bring the paper and discussion to the Committee, realizing it

would take time to get feedback from the Committee and the charter industry. **The motion passed unanimously.**

Mr. Oliver noted that he will be drafting a letter of comments to the National Ocean Council asking for a quick response from the Council members to get the letter in by the deadline.

Ms. Smoker informed the Council that the best way to move forward would be for those entities involved in the ROFR provisions to call the office and or submit a letter to the office with questions. She will keep the Council informed of progress.

Mr. Oliver thanked Nome, chamber of Commerce, NSEDC, and member of the Nome community and that the logistics worked well. It was agreed unanimously.
((Applause to Nome.))

The meeting adjourned at 12:12 pm.

MEETING ATTENDEE SIGN-IN SHEET

June 8, 2011 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Jon Warrenchuk	Oceana
Frank Kelty	City of Unalaska
BRENT PAINE	UCFS
Bob Krueger	AWTA
Frank Kelty	SNSAC
Elany Gromoff	The Aleut Corp.
Paul MacGregor	At-Sea Processors Assn.
Heath Hilyard	SEAGO
Susan Robinson	Fishermens Trust
Richard Yamada	ALASKA CHARTER ASSOC. ALASKA OUTDOOR COUNCIL
Heather McCarty	McCarty & Associates Juneau, AK Unalaska, AK
Charles D. Degnan	Native Village of Unalakleet
Peggy Parker	E.D. Halibut Assoc. of No. Am.
Orville H. Huntington	Tanana Chiefs Conference
Vonna Immingan	Native Village of Savoonga
DON WOODRUFF	Eastern Interior Fed. Subsistence Advisory Council
Lori Swanson	Groundfish Forum
TIM SMITH	NOME FISHERMEN'S ASSOCIATION

MEETING ATTENDEE SIGN-IN SHEET

June 9, 2011 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Enid J. Lincoln	White Mtn. IRA Council
Orville H. Huntington	Tanana Chiefs Conference
Muriel M. Morse	AK. Marine Conserv. Council
FRED K. PHILLIP	BERING SEA Elders
Casie Stockdale	Association of Village Council Presidents
Joe Garnie	WSCHC
Charles O Degnan	Unalakleet IRA
Michael Sloan	Nome Eskimo Community
Ashley Sockpick	Nome Eskimo Community
Kris Norosz	Icicle Seafoods
DON Woodruff	EIFSA Federal Advisory Council
FRANK KAVAIRLOOK	SOVSAC
Chuck Wheeler	Wheeler & Co LLC
Anne Henshaw	Oak Foundation
Louie Green Jr.	Nome
Vera Brown	Native Village of Council
Julie Raymond-Yakoubian	Kawerak
Richard Tuttle	CVRF
Verna Ammergan	Savoonga

MEETING ATTENDEE SIGN-IN SHEET

June 10, 2011 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Peter J Mattes	SCS
Charlie Fitka	St. Michael IRA
[illegible]	At-Sea Processors Assn
Vera Brown	Native Village of Council
Wes Okbaok	Native Village of Teller
Loretta Bullard	Kawerak Inc.
JAMES MAGDANZ	ADF&G SUBSISTENCE
FRANK KAVAIRLOOK	SNSAC
Charles F Saccheus Sr	Native Village of Elim
Verna Cummingsan	Native Village of Savoonga
Victor Joe	NSEDA St. Michael, AK
Cynthia A Athwinona	Nome Eskimo Community
Robert Keith	Native Village of Elim (3 min)
James Roberts	TANANA TRIBAL council
Charles Degnan	NVU, Unalakleet, AK
Jackie Dragon	Greenpeace
[illegible]	ADN
DAN Harrelson	NSEDC/City of White MTN
TIM SMITH	NOME FISHERMENS ASSOCIATION
Louie Green Jr	Nome/Pilgrim River

MEETING ATTENDEE SIGN-IN SHEET

June 11, 2014 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Charlie Lee	~~Teller Native Corp.~~
Charlie Lee	Teller Native Corp
Verna Immingan	Native Village of Savoonga
Charles F Sacchous Sr	NativeVillage of Elim
Cynthia A Ahwinona	Nome Eskimo Community
Perry T. Mewlenhall	Self
Louie Green	Self Nome/Pilgrim River
Craig Stockle	AVCP
Orville D. Huntington	TCC
Nora Brown	Native Village of Council
STOJAN IANKOV	F/V Michelle Renee - G.O.A.
JOE PLESHA	TRIDENT
Margaret Nall	Rondys, Inc
TIM SMITH	NOME FISHERMEN'S ASSOCIATION

MEETING ATTENDEE SIGN-IN SHEET

June 12, 2011 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Verna Cummings	Native Village of Savoonga
Orville H. Huntington	TCC
Louie Green Jr	Nome/Pilgrim River
Laureli Kinneen	KNOM Radio

MEETING ATTENDEE SIGN-IN SHEET

JUNE 13, 2011 N.P.F.M.C. MEETING

PLEASE REGISTER ATTENDANCE FOR MEETING RECORDS

PLEASE PRINT - THANK YOU!

NAME	AFFILIATION
Verna Kmmingan	Native Village of Savoonga
TIM SMITH	NOME FISHERMEN'S ASSOCIATION

Time Log – June 8-13, 2011 – Nome, AK **North Pacific Fishery Management Council**

Wednesday, June 8, 2011

Time	Topic
8:02:54	Call to order
8:03:48	Moved to approve agenda
8:03:55	Passed without objection
8:04:51	Approval of minutes postponed
8:04:59	Approval of Plan Team
8:05:15	B-1 Executive Director Report
8:41:35	Jane DiCosimo reviewing GOA Halibut PSC limit action plan
9:08:20	B-2 NMFS Management Report, Glenn Merrill
9:51:08	Doug DeMaster, SSL update
10:12:45	Melanie Brown, ATF MRAs
10:48:33	Mayor Diane Michaels, City of Nome
10:52:47	B-3 ADFG Report, Karla Bush
11:03:07	B-4 NOAA Enforcement Report, Sherri Meyers
11:37:59	B-5 USCG Report, CAPT Greg Sanial, Lt. Keene
11:48:49	B-6 USFW Report, Don Rivard
13:03:51	Public Comment, all B items
13:03:55	Bob Krueger
13:08:13	Paul MacGregor
13:09:16	Jon Warrenchuck
13:16:39	Julie Bonney
13:34:01	Council Discussion/Action on B items
13:46:51	C-1 Catch Sharing Plan, Jane DiCosimo, Rachel Baker
14:27:24	Scott Meyer
15:21:06	SSC report on Agenda item C-1
15:24:50	Public Comment, C-1
15:24:57	Kent Huff
15:40:51	Heath Hilyard
15:46:48	Richard Yamada
15:52:48	Linda Behnken
15:58:24	Peggy Parker
16:09:30	Council discussion/action
16:20:14	Recess for day

Thursday, June 9, 2011

Time	Topic
8:07:00	Call to order
8:11:23	C-2 Crab SAFE, Diana Stram
8:38:47	Lori Swanson, AP report
8:39:27	Pat Livingston, SSC report
9:22:17	AP report, Lori Swanson
9:32:10	Ed Poulsen public comment, and Bering Sea Crabbers
10:37:38	C-3(a) Habitat Conservation Area Boundary, Nicole Kimball
10:42:22	Lori Swanson, AP report
10:43:02	Public Comment: David Bill and Jason Anderson
10:57:31	C-3(b) Northern Bering Sea Research Plan

10:57:37	Nicole Kimball
11:04:06	Cynthia Yeung
13:53:36	Lori Swanson, AP report
13:56:35	Pat Livingston, SSC Report
14:06:25	Public Comment, C-3(b)
14:06:29	Charles O Degnan
14:23:23	Jon Warrenchuk
14:23:38	Fred Phillip, Muriel Morse, Dorothy Childers
14:32:27	Tim Andrew
14:36:31	David O David
14:46:24	Julie Raymond Yakobian
15:29:26	Tim Smith
15:35:21	Eric Osborne
15:38:50	Loretta Bullard
15:43:16	Edwinna Krier
15:45:55	John Gauvin
15:56:46	Michael Sloan
15:58:41	Council discussion/action, C3B
16:22:25	Recess

Friday, June 10, 2011

Time	Topic
8:02:24	Call to order
8:03:13	SSC Minutes Full report - Pat Livingston
9:35:00	C-5 BSAI Chum Salmon Bycatch
9:35:37	Diana Stram, staff overview
9:43:13	Sarah Elgin
11:02:35	Jim Ianelli
14:32:10	Ruth Christiansen
14:32:21	Scott Miller
15:22:36	Lori Swanson, AP report
16:38:34	Public comment out of order
16:49:34	Roy Ashenfelter
16:51:05	Jim Stotts
17:09:24	Recess for the day

Saturday, June 11, 2011

Time	Topic
8:08:34	Call to Order
8:08:40	Public Testimony
8:17:16	David Bill
8:17:28	Charles Degnan
8:26:32	Cynthia Awinona, Nome Eskimo Community
8:31:00	Timothy Andrew, AVCP
8:37:54	Michael Sloan
8:46:35	Orville Huntington, Tanana Chiefs Conference
8:55:13	Michael James, City of Alkanuk

9:02:04	Raymond Oney, YIKRAC
9:07:39	Joe Garney, Wes Okbauk; City of Teller
9:15:42	Don Woodruff, Eastern Interior Federal Advisory Council
9:17:55	James Roberts, Tanana Tribal Council
9:24:13	Enid Lincoln, Native Village of White Mountain
9:27:50	Peter Martin, Sr. Native Village of Stebbins
9:30:23	Charlie Titka, Native Village of St. Michael
9:35:06	Nancy Mendenhall
9:52:52	Bob Lawerence
9:53:04	George Pletnikoff, Greenpeace
10:21:11	Sue Steinacher
10:28:31	Charles Saccheus, Native Village of Elim
10:32:48	Verner Wilson, WWF, and Heather Brandon
10:49:26	Robert Keith, Kawerk
10:57:09	Richard Tuluk, CDQ Communities
11:09:41	Frank Kelty Unalaska
11:18:30	Stephanie Madsen, At-Sea Processors Assn.
11:35:58	Rose Fosdick
11:39:09	John Gruever
11:52:03	Marie Tozier and Dan Karmen
13:05:16	Paul Peyton
13:09:57	Terry Mendenhall
13:15:05	Jack Fagerstrom
13:19:22	Julie Raymond Yakobian
13:34:46	Art Nelson, Bering Sea Fishermans Assn.
13:42:34	Sky Starky, Assn of Village Council Presidents
13:50:26	Becca Robbins Gisclair, YRDF
13:57:18	Louie Green Jr.
14:05:00	Frank Kavarlook/Art Ivanoff
14:14:21	Tim Smith
14:21:15	Nancy Hillstrand
14:26:06	Nora Brown, Native Village of Council
14:28:03	Nick Delaney
15:07:44	Recess

Sunday, June 12, 2011

Time	Topic
9:01:00	Call to order
9:02:00	C-4 GOA Chinook Salmon Bycatch, Diana Evans staff
11:03:05	Diana Evans
11:48:18	AP report, Lori Swanson
13:05:19	Public Comment C-4
13:06:40	Don Woodruff, Eagle Fish and Game Advisory Council
13:11:07	Joe Plesha, Trident Seafoods
13:17:28	Kurt Cochran
13:53:55	Bob Krueger
13:54:22	Mike Alfieri
14:05:37	Stoyian Iankov

14:08:09	Tom Evich
14:17:35	Heather McCarty
14:29:58	Dorothy Childers for Pete Wedin
14:30:02	Margaret Hall
14:36:24	Julie Bonney
14:56:27	Theresa Petersen, AMCC
15:04:08	Nancy Hillstrand
15:33:43	Campbell motion
16:51:37	Recess

Monday, June 13, 2011

Time	Topic
9:01:00	Call to order
9:03:49	D-1(d) Research Priorities, Diana Evans staff
9:06:49	Diana Stram, AP report
9:06:50	Public Comment, D-1(d)
9:06:57	Eric Osborne
9:51:22	D-2 Staff Tasking
9:54:21	AP Report, Lori Swanson
10:01:00	Public Comment, D-2
10:01:01	George Pletinkoff
10:17:05	Tim Smith, Nome Fishermen's Association
10:24:13	Art Ivanoff, SNSAC Kawerak
10:31:30	Lori Swanson, John Gruver, Stephanie Madsen, Heather McCarty, Paul MacGregor, Julie Bonney
10:43:58	Heather McCarty, CBSFA
10:47:08	Nancy Hillstrand
11:16:44	Discussion of items in Staff Tasking
12:14:47	Adjourn

D R A F T
ADVISORY PANEL MINUTES
June 6-8, 2011
Nome, Alaska

The following (19) members were present for all or part of the meetings:

Kurt Cochran	Becca Robbins Gisclair	Ed Poulsen
Craig Cross	Jan Jacobs	Neil Rodriguez
John Crowley	Bob Jacobson	Beth Stewart
Jerry Downing	Alexus Kwachka	Lori Swanson
Tom Enlow	Chuck McCallum	Anne Vanderhoeven
Tim Evers	Matt Moir	
Jeff Farvour	Theresa Peterson	

Minutes of the March-April 2011 meeting were approved.

C-2(a) BSAI Crab SAFE Norton Sound Red King crab & AI Golden King Crab

The AP supports the SSC recommendations on ABC for the four crab stocks under this agenda item.

Motion passed 18/0

C-2(b) Pribilof Island Blue King crab rebuilding

The AP recommends that increased observer coverage be made a priority under the restructured observer program for the pot cod fleet fishing in the Pribilof and St Matthews areas. The analysis should include suboptions regarding triggered threshold caps for the affected sectors and should also include relative dependence by sector on the affected area. The analysis should include information from the Norton Sound subsistence fishery if possible.

Motion passed 18/0

C-3(a) Habitat Conservation Area Boundary

The AP recommends that the Council reschedule this topic until the December 2011 meeting in order to allow interested parties further opportunity to have discussions.

Motion passed 19-0

C-3(b) Northern Bering Sea Research Plan

The AP recommends the Council request that NMFS:

1. Engage subsistence experts from communities in the Northern Bering Sea research area in the planning process.
2. Include in the plan how the before-and-after trawl effects study will be integrated with ongoing or new ecosystem research in the region.
3. Focus research on the effects of using modified trawl gear.

Motion passed 19-0

C-4 Final action on GOA Chinook Salmon Bycatch control measures

The AP recommends the Council specify January 1, 2013 as the implementation date for the observer requirements contained in this action and clarify that the coverage levels specified in this action apply to the Gulf of Alaska pollock fishery.

Motion passed 19-0

The AP requests the Council adopt the following alternative for final action on Chinook salmon PSC limits and increased monitoring with the changes in Component 1 (**bold**/~~strikeout~~) as revised:

Component 1: ~~22,500~~ **30,000** Chinook salmon PSC limit

Apportion limit between Central and Western GOA - annual PSC limits:

Central GOA: ~~15,816~~ **23,000** Chinook salmon
Western GOA: ~~6,684~~ **7,000** Chinook salmon

[Motion to change PSC limit and split passed 12-7]

Minority Report: The minority of seven AP members believes that the Preferred Preliminary Alternative (PPA) cap of 22,500 represents an upper limit above the historical averages and is a compromise. It is stated in the problem statement that the objective is to reduce Chinook PSC. Chinook are a fully allocated valuable species and GOA Chinook user groups are anticipating meaningful action. While some fishermen may voluntarily work to avoid Chinook PSC there is no effective fleet-wide incentive to do so. Under a reasonable cap the fleet will be economically motivated to avoid Chinook to prosecute the Pollock TAC.

Signed by: Theresa Peterson, Alexus Kwachka, Jeff Farvour, Tim Evers, Bob Jacobson, Chuck McCallum, Becca Robbins Gisclair

The AP notes that this action is not intended to predetermine Chinook salmon PSC limits in non-pollock fisheries

[A motion to add the following option failed 8/11]
~~*Option: The PSC limit may be exceeded by up to 25 percent one out of three consecutive years. If the PSC limit is exceeded in one year, it may not be exceeded for the next two consecutive years.*~~

Central and Western GOA PSC limits would be managed by area (measures to prevent or respond to an overage would be applied at the area level, not Gulf-wide). Chinook salmon PSC limits shall be managed by NMFS in-season similar to halibut PSC limits.

If it is not possible to implement a Chinook salmon PSC limit in the first year for the full calendar year, it shall be implemented midyear for C and D seasons. The PSC limits under this scenario for C and D seasons, combined, will be as follows:

Central GOA: ~~7,710~~ **11,213** Chinook salmon
Western GOA: ~~5,598~~ **5,863** Chinook salmon

The preliminary preferred alternative (PPA) PSC limits for the first year under a midyear implementation are the result of the PPA annual PSC level in each area multiplied by the average

bycatch taken in the C and D seasons within each area across the years noted in the PPA, and adjusted upward by 25%.

Midyear PSC limit calculation:

Central GOA: (~~15,816~~ **23,000** x 0.39) x 1.25 = ~~7,710~~ **11,213** Chinook salmon
Western GOA: (~~6,684~~ **7,000** x 0.67) x 1.25 = ~~5,598~~ **5,863** Chinook salmon

Component 2: Improved Chinook salmon PSC estimates

Extend existing 30% observer coverage requirements for vessels 60'-125' to trawl vessels less than 60' directed fishing for pollock in the Central or Western GOA.

Require full retention of all salmon in pollock trawl fisheries
NMFS shall work with the processors to evaluate and address the quality of sorting at the plants to assist improvements in observer salmon estimates. The Council encourages NMFS to apply lessons learned from the BSAI to the GOA where applicable.

Processing plants, with assistance from NMFS, should endeavor to ensure their fish tickets accurately reflect the species and number of salmon, which will be delivered and sorted as salmon bycatch at their facilities.

NMFS is also encouraged to collaborate with industry to facilitate information sharing in order to speed delivery of in-season data (total catch and salmon counts, by species) for the NORPAC data system and Catch Accounting System.

Motion passed 12/7

C-5 Initial review of BSAI Chum Bycatch analysis

The AP recommends the Council request staff to revise the analysis as described below and bring it back for initial review again in December 2011.

1. Revise Alternative 4 to read:

Alternative 4

Rolling Hot Spot (RHS) system – similar to status quo (with RHS in regulation), participants in a vessel-level (platform level for Mothership fleet) RHS would be exempt from:

Option 1: a hard cap (selected from the range in Alternative 2)
Suboption: In addition to the RHS, the fleet would be subject to a large area trigger closure (encompassing 80% of historical bycatch) with Components 1-3 under Alternative 3 for cap level, application of trigger caps, sector allocations and cooperative provisions.

Option 2: A large area trigger closure (encompassing 80% of historical bycatch)
With Components 1-3 under Alternative 3 for cap level, application of trigger caps, sector allocations and cooperative provisions.

2. Analyze parameters of the RHS program under Alternative 4 that could be adjusted by the council including:
    - Modification of RHS to operate at a vessel level, instead of at the cooperative level;
    - Faster reaction/closure time (shorter delay between announcement and closure);
    - Amount of closure area;
    - Adjustments that would address timing and location of bycatch of Western Alaska chum stocks;
    - Base rates.

3. Make the following revisions to the Draft EA
    - Add caveats to all sections describing the impacts to specific stocks describing the limitations of the stock identification and AEQ information;
    - Where run size impacts are presented for aggregated stocks (i.e. Western Alaska, coastal Western Alaska), clarify that these aggregations may mask impacts on smaller runs (i.e. Norton Sound);
    - Revise the analysis of pollock fishery impacts and potential foregone revenue for Alternative 3 to present actual numbers for each year;
    - Include the discussion previously requested by the Council of "a discussion of the meaningfulness of fines, including histograms of number and magnitude of fines over time as well as a comparison of penalties under the RHS program to agency penalties and enforcement actions for violating area closures."
    - Include a qualitative discussion of the impacts on salmon fisheries, i.e. impacts of fishing restrictions on drying fish, lower CPUEs, gas costs, increased travel time, fish camps and culture;
    - Include an expanded discussion of Norton Sound salmon fisheries by district including escapement and harvest information for an expanded time period and a full discussion of the tier II fishery.
    - Add to Alternative 3, Component 4: apply trigger closures only in June and July.
    - apply restriction to the June and July portions of Pollock fishery.
    - Expand discussion of cumulative effects of the Area M commercial fishery on other western Alaska stocks.

Motion passed 19-0

D-1(d) Research Priorities

The AP recommends the following change (in bold) to the listed research priorities:

> Immediate Concerns:
>
> I.C.2. Salmon genetics and stock identification work to better understand stock of origin of Chinook bycatch in GOA trawl fisheries **and Chinook and chum bycatch in BSAI trawl fisheries**.

Motion passed 18-0

D-2 Staff Tasking

Halibut PSC Cap [referenced under B-1(g) of Executive Director's Report]

The AP received an update from staff on action to reduce halibut bycatch in the Gulf of Alaska and took the following actions:

The AP requests the analysis fully discuss the current halibut stock issues:

1. The serious decrease in exploitable biomass.
2. The mystery associated with poor growth rates
3. Extremely high overall biomass

As well as the challenges associated with other increasing groundfish stocks in the GOA.

Motion passed 18-0.

The AP recommends that the Council retain Alternative 2, Option 2, and suboption b2 for AFA CV, Amendment 80, and Rockfish Program sideboards.

Motion passed 19/0

[A motion to recommend that the Council develop a comprehensive FMP amendment and regulatory amendment and analysis of ways to reduce halibut bycatch by all sectors and gear types engaged in GOA groundfish fisheries failed 9-10.]

<u>Minority Report on halibut PSC cap</u>: The minority of the AP believes that changes in the GOA halibut PSC cap should be addressed through a comprehensive FMP amendment and regulatory amendment. We are concerned that changing the halibut PSC cap through the specification process will not allow adequate time for public consideration and comment relative to changes in groundfish ABC levels resulting from new survey data.

Signed by: Beth Stewart, Jerry Downing, Craig Cross, Lori Swanson, Jan Jacobs, Matt Moir, Tom Enlow, Kurt Cochran

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Certified:_____
Date:_____

REPORT
of the
SCIENTIFIC AND STATISTICAL COMMITTEE
to the
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
June 6th – June 8th, 2011

The SSC met from June 6th through June 8th, 2011 at Pioneer Hall, Igloo number 1, Nome Alaska.

Members present were:

Pat Livingston, Chair	Farron Wallace, Vice Chair	Jennifer Burns
NOAA Fisheries—AFSC	*Wash. Dept. of Fish and Wildlife*	*University of Alaska Anchorage*
Robert Clark	Susan Hilber	Anne Hollowed
Alaska Department of Fish and Game	*Oregon Dept. of Fish and Wildlife*	*NOAA Fisheries—AFSC*
Gordon Kruse	Kathy Kuletz	George Hunt
University of Alaska Fairbanks	*US Fish and Wildlife Service*	*University of Washington*
Seth Macinko	Jim Murphy	Franz Mueter
University of Rhode Island	*University of Alaska Anchorage*	*University of Alaska Fairbanks*
Lew Queirolo	Kate Reedy-Maschner	Ray Webster
NOAA Fisheries—Alaska Region	*Idaho State University, Pocatello*	*International Halibut Commisson*
Terry Quinn	Doug Woodby	
University of Alaska Fairbanks	*Alaska Department of Fish and Game*	

B-1 Plan Team Nomination

In a previous meeting, the SSC discussed the lack of Crab Plan Team (CPT) members with quantitative stock assessment experience and recommended that the Council consider adding an additional member to the CPT to fill this void. The SSC appreciates that this request has been fulfilled with the nomination of Steve Martell, University of British Columbia. Steve has extensive experience with length-based stock assessments and recently chaired the crab modeling workshop and is well-qualified in this regard. **The SSC recommends that the Council approve his appointment to the Crab Plan Team.**

C-1 Halibut Catch sharing plan

Rachel Baker (NMFS-AKR) and Jane DiCosimo (NPFMC) provided background information and context for the agenda item. Scott Meyer (ADFG) presented a description of three proposed algorithms for selecting the maximum size limit for the halibut charter fishery in Regulatory Areas 2C and 3A. Susie Daniels, a charter owner from Gustavus, gave public testimony.

Previously, two methods labeled A and B had been examined, and Scott introduced a third, hybrid approach (Method C). This method calculates a maximum size limit using creel survey length frequency data from the previous year, with all lengths above a potential limit replaced with lengths equal to that potential limit, as a surrogate for the length frequency distribution. Given a specified maximum catch limit in weight, and the standard length-weight relationship, the maximum size limit to achieve this maximum catch can be found. **The SSC views hybrid Method C as an improvement for selecting the maximum size limit.** We agree with the analyst that this approach is somewhat conservative, without being exceedingly so for large size limits, as is the case with Method B.

The SSC also recommends continued investigation of the usefulness of IPHC setline survey data for when there are gaps in the length frequency data from ADFG creel surveys. We also suggest a sensitivity analysis be conducted to determine the effect on the size limit of unsampled catch having larger or smaller lengths than fish from sampled catch.

There was some discussion regarding the fixing of size limits for a few years so that data on changes in the length distribution in response to management could be collected, and to provide stability for the charter industry. Council staff explained that the Catch Sharing Plan does not give the Council the flexibility to do this, as that would require an annual action which the plan seeks to avoid. The SSC cautions that the present approach, even given the improved hybrid option, is likely to be highly destabilizing to the charter industry because of the uncertainty it imposes on their business operations. The SSC views the current approach as just one of many alternatives that could be considered and there may be other approaches to charter management that would offer more stability in regulations on the industry.

C-2 BSAI Crab Draft SAFE report

At this meeting, the SSC is providing the OFL/ABC recommendations for four crab stocks (Table 1) and modeling advice for all stocks. Diana Stram (NPFMC) and Jack Turnock (AFSC) presented Crab Plan Team (CPT) recommendations for these four stocks and information for all stocks discussed during the May CPT meeting.

Norton Sound Red King Crab
Eric Osborn (Commercial Fisher) and Charlie Lean (Norton Sound Economic Development Corporation) provided public testimony.

The SSC reviewed the 2011 stock assessment, which was an updated version of the length-based model presented in the 2010 SAFE. The assessment included new information from the 2011 winter pot survey, the 2010 summer commercial fishery, the 2010/11 winter commercial and subsistence catches and 2010 abundance and size class proportions from the 2010 NOAA trawl survey. The SSC noted that the 2010 NMFS survey used a 20x20 nmi2 grid rather than the 10x10 nmi2 used in all other surveys. The SSC requests that the author examines the potential impact of this shift in grid size on the 2010 abundance estimate.

The SSC agrees with the CPT and the author's recommendations that the assessment model (Model 6) output should be used as the basis for estimating biological reference points for the 2011/12 season. The biomass trends have been increasing in recent years, and recruitment has been modest in recent years.

In response to previous SSC comments, the authors provided a rationale for why larger (>123 mm) crab would have a higher natural mortality rate. The authors reported that the assumption was included to

improve the fit to the summer trawl survey length frequency data. It was noted that the mechanisms for the accelerated decline in large crab are unknown. Given that the processes underlying the drop in large crab remain uncertain, the SSC continues to recommend, for purposes of estimating the OFL that an M of 0.18 continue to be used as a proxy for FOFL. The BMSY proxy was based on average model-estimated legal male biomass for the period 1983-2011. **The author estimated the OFL to be 0.655 million lbs and the SSC accepts this estimate for 2011/12.** The SSC recognizes that this advice is conservative because the proxy for BMSY is based on legal male biomass rather than mature male biomass, and an FOFL of 0.18 is lower than the average value of natural mortality, because the model assumes a higher natural mortality rate for larger crabs. This conservatism is justified given the uncertainty in model parameterization.

Retrospective analysis showed that since 1989, the model over-estimated biomass. This is a warning flag that the assumed processes in the model are not stationary. The presence and implications of a retrospective pattern is a source of uncertainty in the assessment. The CPT attempted to correct for this pattern of retrospective bias by calculating the linear relationship between the retrospective predicted estimate 2000 through 2008 and the hindcast estimate during the same period. The SSC did not accept this ad-hoc adjustment for the retrospective pattern, because opinions differ within the scientific community on whether correcting for retrospective bias is appropriate and if a correction is applied, what methods should be used. Clearly there is a need to develop guidance on when and how assessment authors should account for retrospective bias in assessment models. Instead the authors should look for the cause of the retrospective pattern, which may be due to time variation in certain population parameters (e.g., natural mortality, selectivity)

The SSC recognizes that under the Council's recommended P* of 0.49 and no adjustment to max ABC for the term sigma-b for other sources of uncertainty, that the maximum permissible ABC (0.65 million lbs.) would be nearly identical to the OFL (0.66 million lbs.). We caution that this estimate does not reflect the scientific uncertainty in model parameterization evidenced by the strong retrospective pattern or the issues regarding natural mortality for large crabs. This assessment is an example where the SSC would have preferred to incorporate a sigma-b adjustment to quantify additional uncertainty or apply a buffer between ABC and OFL. To avoid this situation in the future, the SSC requests that the authors include estimates of ABC under different levels of sigma-b or using buffers for data poor stocks (e.g., 10% as for Tier 5 under the Crab FMP or 25% under Tiers 5 and 6 for groundfish) to better justify the rational for selecting an ABC below the maximum.

For 2011/12, the SSC recommends an ABC of 0.59 million lbs. This ABC is based on a buffer of 10% to account for scientific uncertainty in the assessment. The SSC continues to encourage the authors to work on the assessment model with a long-term goal of moving this stock to Tier 3. We agree with the CPT recommendation that this stock assessment would be a good candidate for a review during the modeling workshop planned for January 2012.

Adak Red King Crab

The SSC reviewed the 2011 draft SAFE chapter for Adak red king crab. There is no assessment model for this stock. The fishery has had limited openings since 1995/96 and was closed for the 2010/11 season. The CPT recommended and the SSC agrees that this stock should be managed as a Tier 5 stock. The SSC agrees that the OFL should be estimated as average total catch, using the same base period recommended last year (1995/96-2007/08). Based on this designation, the SSC recommends that the OFL for 2011/12 be set at 123,867 lbs (OFL = 120,000 lbs.).

The assessment author estimated the maximum permissible ABC based on the 10% tier-5 buffer ((1-0.1)* 123,867 lbs) to be 0.111 million lbs. The CPT recommended that the directed fishery remain closed and that the ABC should be set at the maximum level of bycatch observed during the reference period 1995/96-2007/08. The CPT based their recommendation on the following findings: (1) the stock declined

to low stock sizes in the mid 1970s and has remained at a low level, (2) the last ADF&G Industry Survey was in 2002 and it provided no evidence of populations of sufficient size to support a directed fishery, (3) in 2006 a pot survey was conducted and it provided no evidence of recruitment, (4) in 2009 the trawl survey of Petrel Bank found a small aging population with no expected recruitment, and (5) ADF&G approved a test fishery in 2009 and this yielded a single mature male crab. Collectively, these data suggest that the stock is well below historical levels and remains at a very low stock size. The SSC also noted that the Adak RKC stock is distributed around islands in isolated pockets. Only a few genetic samples have been collected, so information about potential interchange between subareas is unknown.

The SSC agrees that the directed fishery should remain closed. The SSC did not accept the CPT's rationale for addressing bycatch needs in other crab and groundfish fisheries. The SSC agrees that the Council should include an allowance for incidental capture of Adak RKC in non-directed fisheries. Review of the time series of bycatch shows an allowance based on the mean bycatch for the period 1995/96-2007/08 should be sufficient. **Therefore, the SSC recommends an ABC of 270,000 lbs. in 2011/12.**
The SSC continues to be concerned about the paucity of data for the Adak red king crab stock. A survey to confirm stock status, sex ratios and size frequencies is needed for this stock.

Aleutian Islands Golden King Crab
There are no biomass estimates available for this stock, as there is no accepted stock assessment model or comprehensive annual surveys. Triennial surveys cover only a small portion of this stock. A stock assessment model is under development and the Crab Plan Team reviewed the current status of this model at their May 2011 meeting. The SSC was provided a summary of the team's comments and recommendations for further model improvements. Although the SSC did not receive a presentation of the model during its June meeting, the team's comments seem reasonable. Their comments included considerations of apparent data conflicts, dome-shaped selectivity, and the desire to simplify the model. The Crab Plan Team is scheduled to review the next version of the model at its September 2011 meeting. The SSC requests a presentation on the assessment model at its October meeting. **Given the importance Aleutian Islands golden king crab fishery, the development of an accepted stock assessment model is a high priority.**

Given the absence of biomass estimates, the Aleutian Islands golden king crab fishery is managed as a tier 5 stock. In 2010, the SSC recommended an approach to estimate OFL based on the average annual ratio of bycatch mortality to retained catch during 1990/91-2008/09 (excluding 1993/94-1994/95 owing to insufficient data), average annual retained catch over 1985/86-1995/96, and average annual rate of bycatch mortality in groundfish fisheries over 1993/94-2008/09. For the current stock assessment, the assessment author recommends using this same approach, but using updated data, including data on historical bycatch that were not available for last year's assessment. The ABC is calculated using a 10% buffer on OFL.

Based on this approach, the SSC recommends following the advice of the assessment author and Crab Plan Team to manage this fishery with a total catch OFL of 11.40 million pounds and ABC of 10.26 million pounds for 2011/2012.

Pribilof Islands Golden King Crab
Historically, the Pribilof Islands golden king crab fishery has supported small and sporadic fisheries. There was no fishing effort between 2006 and 2009 and only one vessel fished in 2010, as well as in 2011 to date. Biomass estimates are not available, so this stock is managed using tier 5. In last year's assessment, the total catch OFL was estimated by a simple conversion equation based on retained catch. This year, the author updated data on catch and bycatch, corrected data errors, and added data on bycatch in non-directed crab fisheries. These additions allowed the author to apply an approach analogous to that used for Aleutian Islands golden king crab. Specifically, the author recommended calculating OFL using

the average annual ratio of bycatch mortality to retained catch between 2001 and 2010, average annual retained catch from 1993 through 1998, average annual bycatch mortality in non-directed crab fisheries during 1994-1998, and the average annual rate of bycatch mortality in groundfish fisheries over 1992/93-1998/99.

Based on this approach, the SSC recommends following the advice of the assessment author and Crab Plan Team to manage this fishery with a total catch OFL of 0.20 million pounds and ABC (using the 10% buffer for tier-5 stocks) of 180,000 lbs for 2011/2012.

In making this recommendation, the SSC notes that 6 years of data are very few years upon which to base these catch specifications. Therefore, the SSC encourages the assessment author to explore alternative approaches to estimate OFL. Outer continental shelf surveys have been conducted in 2002, 2004, and 2008. In September 2010, the Crab Plan Team encouraged including this slope survey into an assessment for possible upgrade to Tier 4. In this year's assessment, the author indicates that the survey data should be explored for their utility to provide reliable estimates of biomass for the Pribilof District. Considerations include the distribution of the survey with respect to stock distribution, as well as estimation of survey catchability by sex and size. The SSC looks forward to results of this examination in the future.

St. Matthew Island Blue King Crab

The St. Matthew Island blue king crab fishery has been managed under tier 4 based on a stock assessment using a four-stage catch-survey analysis (CSA). In June 2010, the SSC discussed difficulties of the model to duplicate the large proportion of recruits in the pot surveys. Other issues with the model have since emerged and were discussed during the crab modeling workshop held in Seattle in February 2011. In their report, the Crab Plan Team provided additional guidance to the author. The model and its code are currently being revised to address these problems, and a simpler three-stage version is also being developed as an alternative. As a precaution against the possibility that the Crab Plan Team does not approve the CSA model for use this year, in the SSC's March 2011 meeting report the author was advised to estimate biological reference points based on survey biomass or some other index of abundance. The April 2011 draft assessment for St. Matthew Island blue king crab contains such a proposed fall-back procedures for use in managing the fishery in 2012. Given the issues with the assessment model, the SSC wishes to receive a presentation on modeling efforts for St. Matthew Island blue king crab at the October 2011 meeting at which time OFL and ABC recommendations will be made.

Pribilof Island Red and Blue king crab

The SSC endorses the Crab Plan Team recommendation to use a 3 year moving average to estimate mature male biomass in the current year. We continue to look forward to seeing stock assessment models for these stocks, once the models are sufficiently developed for our review.

With respect to PIBKC rebuilding, the SSC requests a presentation at our next meeting on the proposed use of bycatch data sources.

Bristol Bay Red King Crab

Jie Zheng and Shareef Siddeek (ADF&G) developed 11 model scenarios this year. The issues examined included estimating initial year proportions, use of re-tow data, sample size for size composition, estimating catchability for the NMFS survey, inclusion of the BSFRF data, time-varying M, and time-varying molt probabilities.

The Plan Team made several suggestions to improve document clarity and recommended reevaluating the treatment of the BSFRF data by including length data and data for females. The Team also requested two additional scenarios: (1) a scenario combining (1a) with (7), and (2) a scenario combining (1c) with (7).

The Team also developed 4 possible time periods for the baseline for calculating reference biomass. The SSC concurs with these recommendations.

EBS Snow crab

The SSC received an update on the current status of the snow crab model, which has undergone substantial changes since September 2010. Four models were explored including the September 2010 model that estimates mature male mortality, models estimating immature M with either a logistic or smooth selectivity function, and a model keeping all mortality rates (immature, mature males, mature females) constant at M=0.23 and fixed growth parameters. All other models estimated growth within the model as in September 2010, which greatly improved residual patterns. The SSC agrees that model formulations, which estimate growth within the model is most appropriate. All models also incorporate the BSFRF data and estimate survey selectivity within the model as endorsed by the SSC in April 2011. While the SSC noted some concern that there is still considerable discrepancy between the selectivity curve estimated by Somerton, as presented to the SSC in December 2010, and the model-based estimates of selectivity, the model takes into account both the 2009 and 2010 survey and the estimated selectivity may reflect a trade-off between somewhat conflicting trends in the 2009 and 2010 data.

The CPT requested six models for the September 2011 assessment that focus on exploring two selectivity options (logistic and smooth selectivities) and three mortality scenarios in a factorial design. **The SSC concurs with these recommendations and encourages the authors to clearly lay out the consequences of incremental changes to the base model in the September 2011 assessment.**

The SSC re-iterates requests from previous minutes for the authors and the plan team, and other survey specialists to consider for future assessments:

- Development of a spatial model for snow crab
- Evaluation of the weights that are used for different likelihood components and the effective sample size for the multinomial likelihood to increase consistency with how likelihood components are weighted in other assessments (both crab and groundfish) and to provide a better rationale for the values used.
- Development of a logical scheme to combine data from the 2009 and 2010 trawl experiments to better understand the factors affecting selectivity.

EBS Tanner Crab

Authors Lou Rugolo (AFSC) and Jack Turnock (AFSC) developed a draft assessment (presented by Turnock) in which they attempted to respond to changes suggested by the Crab Plan Team and SSC during 2010, as well as from the February 2011 Crab Workshop and the April 2011 SSC meeting. The Plan Team was encouraged by the changes and felt that progress was being made, although the model is not yet ready for use in the stock assessment (the strategy is to continue making improvements and evaluate it for assessment purposes in May 2012). Following a recommendation from the crab workshop, the years 1969 through 1974 were not used for data quality reasons. This means that the period 1974 through 1980 is now the period used for determining reference biomass; given the shortness of this period, the SSC recommends strongly that this time period be evaluated, which the authors intend to do.

The main issues that have arisen in past reviews were discussed:

1. Hybrids: Previous reviews were concerned that misidentification of hybrids might have degraded data quality. However only 1 hybrid has been seen in the survey in the last 8 years, probably because of their size. Therefore, the authors did not think this is a big issue in recent years.
2. Early bycatch data in groundfish fishery. Specifically, why is bycatch estimated to be so high in 1973/74 and 1974/75? Concerns were raised about mis-identification of snow crabs in previous SSC comments. This is being looked into.
3. Patterns in survey length frequency. See model scenarios below.
4. Lack of fit to survey biomass between 1983 and 1987. See model scenarios below.

The following model scenarios were decided at the Crab Plan Team meeting:

1. Estimate survey catchability, Q, to see if this improves survey biomass fit in mid 1980s.
2. Include the underbag data.
3. Estimate growth and natural mortality with priors (especially important since growth data is borrowed from Kodiak)
4. Try different selectivity periods based on fishery changes.
5. Try dynamic initial biomass estimation.

The SSC agrees with this plan of action.

The Crab Plan Team would like to use the Tanner crab model for population projections despite its lack of approval of the model as an assessment model. The SSC urges caution in proceeding in this direction. It is usually more appropriate that a model is accepted for assessment and then used for the projection (unless an alternative approach was used for projection, such as time series modeling). The Team requested the authors to go ahead with the rebuilding model for evaluation in September, if it can be used to produce plausible results. Rebuilding scenarios would include no catch, bycatch only, different percentages of $F_{35\%}$, and the ADF&G GHL rule. Recruitment scenarios could include random, a spawner-recruit (SR) model, an SR model with autocorrelation, an SR model with periodic behavior, and others. The SSC will review these scenarios and the performance of the model in September, 2011.

Crab Modeling Workshop

The Crab Plan Team reported that they recommended conducting a 5-day workshop on crab modeling, tentatively scheduled for January 9-13, 2012. The team prioritized Aleutian Islands golden king crab and eastern Bering Sea Tanner crab model review for this workshop. They also proposed that, if the Tanner crab model is near completion in September, then Norton Sound red king crab should be the next highest priority. The SSC agrees with this prioritization, but also recommends that consideration be given to St. Matthew blue king crab. The SSC notes that there is some possibility that the Aleutian Islands golden king crab model may be much farther developed by September and also that development of two other assessment models, Pribilof Island red and blue king crab, are on hold pending completion of the model for St. Matthew blue king crab.

Straw proposal for establishing criteria in estimating Bref

The SSC appreciates the CPTs response to our request for establishing criteria for estimating BREF. The SSC acknowledges that the data available to conduct the analysis will differ between stocks. The SSC notes that the desire is to establish similar criteria across stocks with common data knowing that the criteria may result in the selection of different time periods between stocks.

The SSC agrees that the timing of a 'regime shift' may differ from a 'productivity shift' because of delays in shifts in key processes (such as predation) resulting from a change in the environment. The SSC agrees that most of the metrics proposed could be used to assess shifts in BMSY. However, the proposal to attempt to reconstruct the stock size for Tier 4 stocks by estimating the biomass if fishing had been set at FMSY, is not correct. The observed survey biomass is a realization of a fished population, thus, the reconstructed stock size under FMSY would be an underestimate of the stock size.

Table 1. SSC OFL and ABC recommendations for four crab stocks June 8th, 2011. Bold indicates where SSC recommendations differ from Crab Plan Team recommendations. (Note diagonal fill indicated parameters not applicable for that tier level while shaded sections are to be filled out for the final SAFE in September 2011)

Chapter	Stock	Tier	Status (a,b,c)	F_{OFL}	B_{MSY} or $B_{MSYproxy}$	Years[1] (biomass or catch)	2011[2] [3] MMB	2011 MMB / MMB_{MSY}	γ	Mortality (M)	2011/12 OFL mill lb	2011/12 ABC mill lb
1	EBS snow crab	3										
2	BB red king crab	3										
3	EBS Tanner crab	4										
4	Pribilof Islands red king crab	4										
5	Pribilof Islands blue king crab	4										
6	St. Matthew Island blue king crab	4										
7	Norton Sound red king crab	4	a	0.18	2.49	1983-current [model estimate]	4.70	1.9	1.0	0.18	0.66	**0.59**
8	AI golden king crab	5				See intro chapter					11.40	10.26
9	Pribilof Island golden king crab	5				See intro chapter					0.20	0.18
10	Adak red king crab	5				1995/96–2007/08					0.12	**0.03**

[1] For Tiers 3 and 4 where B_{MSY} or $B_{MSYproxy}$ is estimable, the years refer to the time period over which the estimate is made. For Tier 5 stocks it is the years upon which the catch average for OFL is obtained.
[2] MMB as projected for 2/15/2012 at time of mating.
[3] Model mature biomass on 7/1/2011

C-3 (b) Northern Bering Sea Research Plan report

The Northern Bering Sea Research Area (NBSRA) Report was presented by Diana Evans (NPFMC) and Cynthia Yeong (NMFS-AFSC). Public testimony was presented by Charles Degnan (resident of Unalakleet), Dorothy Childers (Alaska Marine Conservation Council), Fred Phillip (member, Bering Sea Elders Group), Muriel Morse (Alaska Marine Conservation Council and member, Bering Sea Elders Group), John Gauvin (Alaska Seafood Cooperative), and Eric Osborne (fisherman, resident of Nome).

The SSC was provided with an oral presentation and written report. An excellent oral presentation provided a brief background to the NBSRA, overview of a northern Bering Sea survey conducted in 2010 including mapped distributions of key groundfish and crab species, geographic distributions of some fish and crab species relative to the cold pool, very brief review of chronic versus acute approaches to studying trawling effects, and an overview of the proposed paired design of a before-after-control-impact (BACI) study proposed to be conducted in the northern Bering Sea. The written document mainly focused on the proposed BACI study with the addition of a brief description of chronic and acute trawl impact studies conducted by the AFSC's TRAWLEX project in the southeastern Bering Sea.

The SSC last reviewed the NBSRA Research Plan in June 2009. At that time, the document was a draft outline and the SSC made several recommendations, including the following: (1) "Areas utilized by marine mammals, seabirds, crab, listed species, and subsistence resources and users should be mapped. These data should be compiled and integrated, either as part of component 1 of the new research plan, or as a new separate mapping and retrospective analysis component"; (2) "… the plan should more fully explain how it will integrate linkages to upper trophic levels, including eiders, whales, walrus, and subsistence resources. In addition, the impetus for the NBSRA study plan is the potential redistribution of fisheries due to climate change…"

The stated goal of the research plan is to investigate the effects of bottom trawling on bottom habitats and provide information to the Council in protecting crabs, marine mammals, endangered species, and subsistence needs. However, the plan only focuses on the first part of this goal (bottom trawling effects) and fails to provide information on crabs, marine mammals, endangered species and subsistence. Rather than being a comprehensive research plan to address the stated goal, the document is a narrowly focused trawl impact experiment. In addition, the description of the trawling effects study lacks sufficient scientific and technical detail to be evaluated. When the SSC first reviewed the NBSRA Research Plan in June 2009, it was noted that the document was at the early stage of development in draft outline form. This current version is still largely in outline form and still focuses on the trawling effects study. Given the vague description of the trawling effects study and the lack of important information on other important parts of the overall research plan, the current schedule is extremely ambitious. The Council is scheduled to review the plan in December 2011 and the plan is scheduled to be finalized in April 2012.

The SSC had many questions and discussions about the research plan. Owing to many concerns and unresolved issues, it was difficult for the SSC to provide technical scientific review of this incomplete document. On this basis, the SSC offers the following advice.

The research plan lacks a set of hypotheses to be tested. In addition, the plan fails to provide background information on the northern Bering Sea ecosystem including the importance of benthic energy flow in this

region, literature review of the biota living in the area and their habitats (e.g., sediments) including life history of species potentially affected by trawling impacts and their ability to recover from disturbance (i.e., are these slow-growing, long-lived species that are very vulnerable to long-term effects?), and a review of previous trawling effects studies. The background should address what birds and marine mammals are present in the areas under consideration, and what components of their food base may be compromised by trawling. Many previous studies and reviews (e.g., NRC 2002 cited in the plan) have found common effects of trawling on habitat complexity, species diversity, and species' biomass. This background information is critical, not only to the design of a trawling effects study, but also to assess the risks associated with bottom trawling in this area. The literature cited in the document on trawling effects is very limited and Alaska centric. Among many others, the SSC calls the following study to the attention of the authors: Collie, J.S., S.J. Hall, M.J. Kaiser, and I.R. Poiner. 2000. A quantitative analysis of fishing impacts on shelf-sea benthos. J. Anim. Ecol. 69(5): 785–798. This meta-analysis provides insights into the magnitude of mean effects of trawling with respect to such things as gear type and taxa and recovery rates by sediment type. Coupled to distributional maps of biota and sediments, these expected effects may provide information on areas most sensitive to trawling in the area of consideration. Of note, mud sediments, which occur in the NBSRA, are among the most sensitive to disturbance by bottom trawls. In mud habitats, subtle features (ripples, worm tubes) provide oxygenation of upper sediments needed to support aerobic infauna communities and suspension and re-settlement of sediments are additional effects to evaluate in a trawl impact study.

There is no evidence in the plan of incorporation of information collected during the community and science workshops, aside from the brief minutes of the science workshop that appear as an appendix. Residents of coastal communities have critical knowledge to be incorporated into the research plan. The SSC received a draft report, titled "The Northern Bering Sea: Our Way of Life", prepared by the Bering Sea Elders Advisory Group. Though still in draft, this document contains extremely useful information including detailed maps of important areas for walrus, seals, whales, subsistence uses, etc.

On page 8 of the document (note, page numbers need to be fixed), it is stated that "It is very important to identify the species of particular interest at the beginning of the experimental design effort." However, the current plan makes no consideration of the species of particular interest or their geographic distribution. Given the benthic dependencies of the focal species, the benthic invertebrate (and fish) prey of walrus, seals, whales, seabirds, crabs, and other focal species must be considered in the design of trawling effects studies. In this regard, the SSC's previous request for mapping is critical.

The plan states "study design needs to account for seasonal and decadal signals", but it is not clear from the document how this will be done. Yet, without such considerations, conclusions from the study could be irrelevant or incorrect as the system changes in the future. The research plan must address all aspects in the Council's stated goal. In addition to an investigation of the effects of bottom trawling on bottom habitats, the plan needs to provide information to the Council in protecting crabs, marine mammals, endangered species, and subsistence needs.

The experimental design of the proposed trawl impact study must address the stated hypotheses. Once the groundwork is completed to identify the focal species (prey in common with crabs, mammals, and birds), the experimental design parameters must be specified in much more detail. The statistical methods to test the hypotheses must be provided. The design must articulate the metrics (biomass, abundance, body size,

habitat forming invertebrates, etc.) to be measured. Many other technical details need attention. For example, the plan indicates that van Veen grabs will be used to sample infauna, yet the January workshop report indicates that the prey of walrus dwell at depths too deep to be sampled by this gear. The utility of low-impact sampling methods, such as submersible or ROVs, should be considered and discussed (this was also recommended in the June 2009 SSC review). Other researchers in the region (e.g., Jim Lovvorn) have used low impact gears with success. Such methods would reduce the environmental impacts of the research.

The design should include the specific sites and species to be studied and the basis for their selection. The draft plan indicates that sites critical to managed species and subsistence will be considered for inclusion, but these will be excluded if harmful to the subjects. Such a statement provides no guidance on site selection. The document also indicates that established benthic research stations from scientific programs will be avoided, if possible. It would be tragic if long-term monitoring sites, such as those studied by Jackie Grebmeier, were compromised by the proposed research.

The study should evaluate both the direct and indirect effects of trawling. Indirect effects may include effects of re-suspended sediments on filter feeders, altered predator-prey relationships (e.g., does trawling promote feeding opportunities by predators?), and others. Ecosystem-level impacts are the crux of the issue concerning potential bottom trawling in the northern Bering Sea. However, the document makes mention of ecologic studies in only one sentence. The plan, as outlined, appears to only address some of the short-term direct effects and fails to address their interpretation and significance to the ecosystem. While the current document focuses on a 'doable' task (trawl impact study), the ecosystem considerations, such as impacts on the food web and protected species, are too critical in this region to defer to some unfunded, follow-up study. Study of these impacts must be built into the overall plan. Success in this regard will depend on collaboration with partners, such as USFWS, NPRB, NSF, UAF, UW, etc. The plan fails to articulate a monitoring plan to document recovery rates. Recovery rates are shorter in well-sorted, sandy sediments and longer in low-energy, muddy bottoms.

The SSC has fundamental questions about the ability to draw correct conclusions about the effects of a prospective trawl fishery from a small-scale, one-time research experiment. A good example of this problem appears in the draft plan itself. An acute trawl impact study was reported for the southeastern Bering Sea in which four passes of a research trawl in six pairs of experimental and control corridors were evaluated and virtually no statistically significant effects were found. However, a chronic effects study in the same area, which took advantage of areas closed to trawling and adjacent high trawling areas, revealed that the benthos in the highly trawled area was less diverse, dominated by sea stars (in some systems, sea stars are keystone species that restructure ecosystems), had less emergent epifauna, less biogenic substrate, and reduced structural complexity. Results from this chronic trawling effects study are consistent with many other trawling effects studies worldwide. Given this, the SSC is very concerned to read on page 7 of the plan that, "If no statistically significant effects are detected, it concluded that bottom trawling did not cause detectable changes in the benthic-invertebrate community within the time scale of the study. As such, it is unlikely that bottom trawling will impact animals and subsistence activities that are dependent on this type of benthic habitat." Such a conclusion would not only go well beyond the time and spatial scales of such a limited study, it is also inconsistent with hundreds of studies on trawling effects worldwide.

Many coastal communities and residents oppose any trawling, including research trawling, in the northern Bering Sea owing to their strong dependence on the health of fish, invertebrate, seabird and marine mammal resources in the region. Given that the Council recommended opening the Modified Gear Trawl Zone in the southern portion of the region and testimony that this area remains lightly fished, consideration should be given to conducting experiments in this southern area that is already open to fishing. Also, this area is one that is more likely to be relevant to commercial trawling interests in the near future.

C-5 Initial review BSAI chum salmon bycatch analysis

Diana Stram (NPFMC), Jim Ianelli (NMFS-AFSC), Alan Haynie (NMFS-AFSC), and Scott Miller (NMFS-AFSC) presented details from the initial review draft Environmental Assessment (EA) and Regulatory Impact Review (RIR) concerning analysis of alternatives and assessment of potential impacts of addressing chum salmon bycatch (PSC) in the BSAI groundfish fisheries. Topics discussed in the EA were the background and rationale for the action, a description of the affected fisheries (including state-managed salmon fisheries), the range of management alternatives considered, analytical techniques for assessing the implications of chum salmon PSC in western Alaska, and evaluating the impacts of the alternatives. Public testimony was given by Michael Sloan (Nome Eskimo Community), Tim Andrew (Association of Village Council Presidents), Charlie Lean (Norton Sound Economic Development Corporation), Tim Smith (Nome Fisherman's Association), and John Starkey (Association of Village Council Presidents).

Alternatives discussed in the EA include: 1) status quo, with the current system of area closures along with exemption to these closures by pollock vessels participating in the Voluntary Rolling Hotspot inter-cooperative agreement (VRHS ICA); 2) a hard cap on chum salmon bycatch, with options for sector splits, sector transfers, and cooperative provisions; and 3) chum salmon bycatch triggered closures, with options for sector splits, sector transfers, cooperative provisions, and area and timing considerations; and, 4) chum salmon triggered closures with an intercooperative exemption.

The SSC commends the authors for the impressive amount of analytical work completed on the EA to date. The analysts did a good job of addressing all of the comments made during the SSC's February 2011 review of the preliminary review draft of the EA:

- Inclusion of a concise problem statement.
- Removal of a rolling hotspot system from alternative 3 and creating a new alternative (4) that includes a rolling hotspot with an intercooperative exemption
- Use of published sources for recent genetic analyses rather than relying on unpublished draft documents.
- Resolving differences in temporal stratification of genetic and bycatch data and developing methods of weighting these data to produce AEQ estimates by stock grouping.
- Analyzing and adjusting AEQ data for a year effect and applying uncertainty from this effect into years without genetic sampling.
- Developing a table of impacts of bycatch on appropriate stock grouping by year in western Alaska.

- Including a thorough analysis of the current rolling hotspot system in the EA.

The analysis does a good job of quantifying the effect of proposed actions on number of chum salmon potentially saved and potentially foregone in the pollock harvest, given the range of alternatives. However, a parallel treatment of the impacts on commercial salmon fisheries, subsistence use, and sustainability of chum salmon runs should be added. Methods used to make these estimates should be included in Chapter 3 and the description of the impacts should appear in Section 5.4.

Several additional issues remain in the EA:

- Include a summary on alternative hypotheses for the declines of chum salmon in Western stocks, and Nome area in particular. This issue should be carried through the document in sections 1.0, 5.1 and section 7.5.
- Include a discussion of the rationale for using a pooled age-length key for estimating age composition of chum salmon.
- In Chapter 8 section 8.1.9, the cumulative impacts section appears incomplete in that paragraph one indicates that an analysis of significance is forthcoming, whereas the final paragraph of the section indicates that there is no significant impacts.
- If available and significant, we recommend that the impact of the recent tsunami on Japanese hatchery production of chum salmon be noted in the analysis.

From the draft RIR/IRFA presented to the SSC, it is clear that the authors have sought to be responsive to the SSC's earlier request for greater examination of the post-PSC impacted uses and users. In our earlier review, we had expressed concern at the apparent lack of balance or proportionality in the level of detail, both descriptive and analytical, in the EA/RIR/IRFA. The result is an Initial Draft that includes numerous cut-and-paste descriptive materials from published secondary sources (e.g., ADF&G Fishery Outlooks, CDQ Annual Reports). The SSC appreciates author's attention to our request, but recommends that the narrative material be reduced substantially through summarization and editing of the material to provide greater clarity in the document.

In direct evaluations of the specific suite of proposed actions, there is explicit treatment of only a subset of the full set of alternatives and options under consideration by the Council. Analysis of Alternative 1 (the status quo or no action alternative), functionally defaults to the sweeping descriptive narrative, which makes characterization of the status quo outcome difficult. It is this status quo condition that serves as the empirical baseline, which is then employed to develop a back-cast simulation evaluating revenue-at-risk and catch foregone. Employing empirical catch, production, price, and PSC statistics for the GOA pollock fisheries, estimated "gross revenue" impacts, by sector and market-level, are offered, under a set of strictly limiting assumptions. While the pollock industry impact analysis qualitatively identifies the types of costs that may be involved, the quantitative analysis focuses exclusively on gross revenue impacts. Although this has become standard practice in many recent Council analyses, the SSC wishes to reiterate that using gross revenue impacts in this way is an inappropriate and misleading measure of net impacts. Resolution of this deficiency is, as we have emphasized repeatedly, fundamentally dependent upon acquiring comprehensive cost data. The EA/RIR/IRFA incorrectly, associates gross revenue impacts with industry costs, but this in no way reflects the actual costs to the pollock industry or to

pollock dependent communities. The appropriate measure is the impact on profits not gross revenue. There are other instances in which revenue impacts are incorrectly associated with costs to industry (e.g., EA page xxxiv). Both the EA and the RIR should be reviewed to correct this error.

For Alternative 2, which contains very complex and potentially important policy considerations and precedence-setting implications, the analysis is incomplete. Specifically, the draft analysis is completely silent on the costs and benefits attributable to the concepts of transfers and roll-overs of PSC amounts and their implications for understanding the economic, socio-economic, and cultural impacts of these PSC-redistributive options.

In general, the pollock revenue-at-risk (or revenue foregone, depending on interpretation of fishery outcomes) is characterized as the "pollock-side" of the benefit/cost evaluation. Assumed AEQ "savings" estimates, were projected as a proxy for the "non-Chinook" impacted users and uses benefit/cost impacts (see page 196). This approach inappropriately ignores the multi-dimensional nature of benefits deriving from non-Chinook salmon (e.g., cultural, subsistence, passive-use), they were treated in the abstract in the introductory narrative. This defeats efforts to comprehensively account for changes in chum salmon PSC on all concerned users and uses.

The same revenue-at-risk back-cast analytical strategy was stated to have been employed to examine aspects of Alternative 3, including options, although that analysis appears to be largely absent from the document, to the extent SSC reviewers could determine.

The draft RIR declares that there is no analytical treatment of Alternative 4, although we now understand from staff presentation that Alternative 4 was intended to be the de-facto status quo Alternative (i.e., no meaningful difference from Alternative 1).

The asymmetrical treatment of benefits and costs in the context of the pollock fishery versus that of the subsistence communities is both striking and troubling. The analytical work that has gone into modeling the potential impacts on the pollock fishery is impressive, particularly given the time available to the analysts. In contrast, the consideration of impacts on the salmon users and dependent communities is truncated at the production of the estimates of AEQ savings of chum salmon. The rationale given for not proceeding beyond the AEQ estimates to a fuller consideration of impacts on subsistence communities is that much needed data is missing and too many assumptions would be required to proceed beyond the AEQ estimates. The tradeoff between economic benefits in the pollock fishery and the relationship of salmon to life in rural Alaska is difficult for the Council to evaluate. The process may best be served by comprehensive analyses of all dimensions of the tradeoffs and potential impacts involved.

The descriptions of subsistence and salmon dependent communities are treated superficially. There are a number of sources that need to be researched and evaluated to make those sections of the document richer and more relevant. Testimony from the public pointed to internal studies conducted by the Association of Village Council Presidents (AVCP), Kawerak, Nome Eskimo Community, and other western Alaska entities that need to be included. These entities should be contacted for additional socio-cultural and economic data for its potential to be included in this analysis. ADF&G area manager James Magdanz is another valuable resource, and can contacted for other sources. These sources may allow for an exploration of changes in family structure, changing uses of fish camps, skill loss and outmigration, for

example, from the local perspective. The SSC realizes that new studies addressing these concerns are not possible for inclusion in the RIR, but a concerted effort to evaluate any and all existing data should be made.

The Environmental Justice section (Chapter 7) requires revision. Statements about relative importance of subsistence and suggesting dollar values for subsistence are unnecessary and should be excised. Subsistence importance should not be measured through quantity because of a myriad of constraints, for example closed seasons, gear, human resources, weather, freezer space, among others. Using less does not mean wild foods are less important. The authors should identify who "provides" (p. 263). There is also a suggestion that, because there is primarily formal economy data documented, that "poverty and income statistics should really be adjusted to reflect the monetary value of subsistence production to provide a relatively comparable measure of income." This is hugely problematic and should not be attempted. Subsistence requires financial resources, social capital, health, ability, skill, time, for example. Oftentimes, it is the highest wage earner who is also producing the most subsistence resources, and taking care of multiple households. Subsistence foods cannot be sold (there are some customary trade exceptions), but the Subsistence Division only provides dollar equivalents to subsistence when considering the costs of replacement during closures. Such estimates do not capture the full cost of the loss of access, but only the market-based expenditure to acquire and transport a substitute food source (e.g., beef, when caribou hunting is closed).

Descriptions about Akutan need to be revised (pages 265-266). The statement about village life from an earlier era should be excised as it places them outside the modern economy, and is erroneous since they are aggressively pursuing modern development (geothermal energy, for example). Support economies in coastal communities where the pollock fleet delivers its catch should not be dismissed. They are at a greatly reduced scale, but having a transient fleet and cannery personnel spend money in a small community can provide vital income. Akutan is distinct from the plant and the pollock fishery, but relies a great deal on both.

There are a number of factual errors. For example (P. 100), Port Heiden does not fish Area M. They fish Area T in Bristol Bay (Ugashik District), but the outer Port Heiden section is fished by Area M fishers. Port Heiden is a cultural boundary between Alutiiq and Aleut. Another example is found on the map on page 179. There is no processor in Cold Bay, Peter Pan Seafoods in Port Moller was missing, and Sand Point has Trident and Peter Pan Seafoods. There are likely other errors and the document should be carefully reviewed for accuracy.

In the Outreach Report, the primary concern coming from the communities is the theme of "waste." Some of the comments speak about recovering that waste through the food bank system. There is an assumption from these comments that these fish are coming to Alaska communities to relieve the need in rural fishing villages. The RIR is clear that SeaShare delivers these fish to Seattle area food banks, not Alaska. Staff should be aware that this misperception continues.

There are several missing references in the text and references cited section, such as Wolfe 2009, Andersen 1992, Andersen and Scott 2010, and the Langdon reference (p. 261). The document should be carefully checked for others. The SSC will provide to the analysts a detailed list of additional necessary edits, recommended changes, and desired clarifications.

Deficiencies in this draft document are important to correct in order to provide a useful understanding of the complete complex of proposed actions. **Thus, the SSC recommends that the draft should not be released for public review until corrected.**

D-1 (a) Review Pacific cod assessment model

Grant Thompson (NMFS-AFSC, and Pacific cod stock assessment main author) presented this topic to the SSC. A new process was inaugurated last year to narrow model scenarios considered to an attainable number prior to the Joint Groundfish Plan Team (JPT) September meeting. Kenny Down (AFLC) provided public testimony.

This year the JPT, the combination of the GOA and BS Groundfish Plan Teams, met on 5/17/11 to accomplish this task. Following the April 2011 CIE Review, 3 sets of recommendations were received by the three reviewers. In addition, previous comments from the plan teams and SSC, and new comments from the public were considered. In all, there were 144 individual recommendations, of which 128 were from the CIE review, 1 from the GOA Plan Team, 10 from the SSC, and 5 from the public (all from Mark Maunder, who has been a frequent participant in public review of Pacific cod). Of these proposals, the stock assessment author was identified as the most appropriate person to address 99 of the proposals. In addition, 5 recommendations emerged from the JPT at their 5/17 meeting. Only 4 CIE Review comments were the same from all three reviewers: keep age composition data, drop fishery CPUE data, estimate aging error, and investigate survey variance. The JPT made three passes through the proposals, using predetermined and agreed-upon criteria for each pass. This resulted in six recommendations that could be compressed into 4 new models. Each of these models addresses at least some concerns by all groups. Model 1 is the status quo, last year's model. Model 2 is comprised of two unrelated changes: using splines for selectivity and dropping survey data prior to 1982. Model 3 attempts to estimate ageing bias within the model. Model 4 is the same as some that have been used in the past in eliminating most age data. Mode 5 is a reconfiguration of the time blocks for selectivity that should simplify the model and result in estimation of fewer parameters.

The SSC is pleased that the process is working well. The meeting was accomplished in one day and could be done by teleconference, saving people from having to travel to another meeting. The SSC notes that the process is responsive to the CIE review, the public, and the SSC, even though all recommendations could not be incorporated. **The SSC is satisfied with the model choices and does not propose any additional ones.**

D-1(b) Discussion paper on groundfish uncertainty and total catch accounting

The SSC reviewed a discussion paper and received an excellent presentation by Grant Thompson (NMFS-AFSC) on several issues relating to Annual Catch Limit (ACL) measures for groundfish in the GOA and BSAI under National Standard Guideline 1 (NSG1). He identified three particular issues of concern and presented some options of how these could be addressed in the future.

1. The first issue relates to the role of uncertainty in determining groundfish ACLs. Although recent amendments to the groundfish FMPs to implement ACLs bring these plans into compliance with the revised NSGs, improvements in accounting for uncertainty in setting ACLs can be made.

The author compared two options for incorporating uncertainty: the decision-theoretic (DT) approach and the P* approach and provided an example illustrating the advantages of the DT approach in one situation. The analysis also clarifies a previous concern about the DT approach arising from the crab ACL analyses.

In those analyses, the risk-averse and risk-neutral approaches resulted in very similar optimal fishing mortality rates in spite of large uncertainties. A simplified example in the discussion paper shows that under certain conditions a risk-averse manager will fish at a higher F than a risk-neutral manager to avoid bad outcomes (essentially selecting the best among the worst possible outcomes).

The SSC recommends a deliberative approach to improving the treatment of uncertainty in the groundfish FMPs and encourages the author and/or other analysts to further develop the document to (1) explore the advantages and disadvantages of the DT and P^* approaches using more realistic scenarios and (2) determine how the approaches would be applied across different tiers (Tier 1-4). This will require continued research on developing appropriate models for understanding the interactions between fisheries in response to changes in harvest policy.

2. A second issue is that the current groundfish FMPs lack a specific value for "Minimum Stock Size Threshold" (MSST) as a reference value for determining whether a stock is overfished. This is because stock assessment authors determine overfished status based on projecting current biomass forward under certain assumptions, instead of comparing it to an MSST value. Although the SSC had some concerns about adding possible confusion by reporting another reference point in addition to those that are already being computed, providing such a value would greatly simplify current reporting requirements and may provide another useful benchmark for monitoring current biomass relative to MSST. The author proposed two options for future consideration. In addition to the options provided in the document (p. 21), the SSC offers two additional options for consideration and recommends that the Plan Teams and stock assessment authors review and evaluate all options before proceeding with plan amendments.

Option 3: MSST will be set as the greater of: a) ½ B_{MSY}, or b) the smallest *equilibrium* stock size at which the stock would be expected to rebuild to B_{MSY} within 10 years if it were fished at F_{OFL} in each year.
A stock would be declared overfished if the current stock size fell below the MSST unless the current age structure would be expected to rebuild to B_{MSY} within 10 years when fished at F_{OFL}. Advantages include that the approach is fairly simple and provides a relatively stable reference point against which to measure current biomass. A disadvantage is that it might create confusion if current stock size falls below MSST, but the stock is not overfished. Moreover, it is unclear if this option is compatible with language on determining overfished status in NSG1.

Option 4: MSST will be set as the greater of: a) ½ B_{MSY}, or b) the smallest stock size at which the stock would be expected to rebuild to B_{MSY} within 10 years if it were fished at F_{OFL} in each year under the *current* age structure (proportions at age). The stock would be declared overfished if it drops below MSST. An advantage is that the approach is fairly simple and provides a reference point against which to measure current biomass. A disadvantage is that the MSST may vary considerably from year to year rather than providing a stable benchmark against which to evaluate current biomass.

3. The third issue is how to deal with removals from various sources for (A) computing various reference points and (B) counting them against harvesting specifications.

The SSC recommends that stock assessment authors and plan teams address this issue in the upcoming stock assessment cycle. Stock assessment authors should clearly lay out which sources of removals are currently included in the assessment, how removals from each source are estimated, and how they are being included in (A) and (B) above. To the extent possible, authors should discuss all known sources of mortality (including handling mortality, indirect mortality, subsistence, etc.) and which of these sources are considered in the assessment.

D-1(d) Research priorities

Appendix A. Five-Year Research Priorities: 2012-2016

The SSC has identified priorities for research in the next 1 to 5 years as those activities that are the most important for the conservation and management of fisheries in the Gulf of Alaska, Aleutian Islands, eastern Bering Sea, and the Arctic. This listing of priorities has two purposes: 1) to meet the requirements of the revised Magnuson-Stevens Act for the Councils to identify research that is needed in the next 5 years, and 2) to provide guidance on research priorities to the research community and to funding agencies.

The research priorities the SSC has identified are separated into two categories: **Immediate Concerns** and **Ongoing Needs**. **Immediate Concerns** include research activities that must be addressed to satisfy federal requirements and to address pressing fishery management and ecosystem issues related to fishery management. The SSC has indicated those Research Priorities for which Research is Underway. These are Research Priorities for which NPRB grants have been awarded or for which it is known to the SSC that one or more other agencies have undertaken the recommended research. These priorities will remain on the list until the recommended research is complete and evaluated in terms of the SSC Research Priority that was listed. **Ongoing Needs** include research to advance the Council's fisheries management goals as defined in the Groundfish PSEIS, other strategic documents of the Council (i.e., FMPs, AI FEP, and EFH, crab, salmon PSC, and other EISs) and NMFS. **Ongoing Needs** include efforts on which the assessment models depend for their annual updates. For example, without the survey information, the annual process of setting ABCs and OFLs for the managed stocks would be compromised. The SSC sees these efforts as needed on an ongoing basis, and constituting the time series on which management is based. It should be recognized that research in these categories is being conducted or may be conducted through Federal, State of Alaska, North Pacific Research Board, and other funding sources.

Appendix A. Five-Year Research Priorities: 2011-2015

Immediate Concerns

I. Fisheries

A. Fish and Fisheries Monitoring

1. Non-recovering stocks. A pressing issue is why certain stocks have declined and failed to recover as anticipated (e.g., Pribilof Island blue king crab, Adak red king crab). Research into all life history components, including predation by groundfish on juvenile crab in nearshore areas, is needed to identify population bottlenecks, an aspect that is critically needed to develop and implement rebuilding plans. (Students on the Pribilof Islands may be able to help collected and analyze stomach contents of halibut and cod for evidence of predation on juvenile king crab.)
2. Improve in-season catch accounting by sex and size for crab in non-directed fisheries with high bycatch rates, particularly for blue king crab in the Pacific cod pot fishery in the Pribilof Islands.
3. Develop methods for reliable estimation of total removals (e.g., surveys, poorly observed fisheries) to meet requirements of total removals under ACLs. Improve species identification, by both processors and observers, for priority species within species complexes in catches. Methods that quantify and correct for misidentifications are desired.
4. Characterize the spatial distribution of male snow crab relative to reproductive output of females in the middle domain of the EBS shelf (partially underway)

B. Stock Assessment

1. Improve handling mortality rate estimates for crab. Improved understanding on the post-release mortality rate of discarded crab from directed and non-directed crab pot fisheries and principal groundfish (trawl, pot, and hook and line) fisheries is required. The magnitude of post-release mortality is an essential parameter in the determination of total annual catch used to evaluate overfishing in stock assessment and projection modeling. For example, assess discard mortality rates of Tanner crab by size, month, sex, and fishery type. (partially underway: Chionoecetes RAMP study)
2. Refine methods to incorporate uncertainty into harvest strategies for groundfish for ACL estimation. (underway)
3. Develop biomass indices for Tier 6 species, such as sharks, and conduct net efficiency studies for spiny dogfish.
4. Conduct a tagging study of red king crab in the region north of Bristol Bay to assess the movement between this region and the Bristol Bay registration area.
5. Conduct winter surveys of groundfish in all three areas (EBS, GOA and AI) to create seasonal models of fish diet and biomass distribution relative to Steller sea lion critical habitat.
6. Conduct tagging studies of Pacific cod and Atka mackerel to create models of short-term movement of fish relative to critical habitat (tagging methods for pollock are in development).
7. Conduct tagging studies of Atka mackerel to estimate local abundance inside and outside critical habitat. (underway in Central Aleutian Islands; needed in Western Aleutian Islands)

C. Fishery Management

1. Develop a research program that will facilitate evaluation of salmon (both chinook and non-chinook) PSC mitigation measures in the BSAI and GOA. This includes updated estimates of the

amounts reasonably necessary for subsistence, and access to cost data for the commercial pollock and salmon industries so that impacts on profits (not revenues) can be calculated.

2. Develop improved catch monitoring methods of fishery interactions, including direct and alternative options (e.g., electronic logbooks, video monitoring), particularly on smaller groundfish, halibut, and commercially guided recreational fishing vessels, including an assessment of feasibility for small vessels.
3. Improve the resolution of Chinook and chum salmon genetic stock identification methods (e.g., baseline development, marker development), and precision of salmon run size estimates in western Alaska, and initiate investigations of biotic and abiotic factors influencing natural mortality rate during ocean migration in the GOA and BSAI.

II. Fisheries Interactions

A. Protected species

1. Conduct studies of localized interactions between fisheries and protected species. Studies of interactions between Steller sea lions and commercial fisheries are needed in the Central and Western Aleutian Islands, with an emphasis on seasonal prey fields, diet, and movement of sea lions and their prey. These studies should be conducted at appropriate spatial and temporal scales.
2. Foraging ecology studies of SSL in the western and central Aleutians. Specifically, this research would include at-sea tracking of adult females and juveniles, and collecting SSL scat and spew. Supplemental research could include stable isotope analysis, fatty acid analysis, contaminant studies, monitoring of condition and health indices, and additional photogrammetric work. (partially underway)
3. Assess vital rates (i.e., reproduction and survival) of SSL in the western and central Aleutians. Specifically, this would require longitudinal studies (e.g., branding of pups) to determine rates of age- or size-class specific survival, as well as studies to help evaluate the reproductive performance of adult females and natality, including comparative surveys throughout the western Distinct Population Segments.
4. Investigate advancements in methods to estimate sea lion abundance, such as the use of unmanned aerial vehicles that would increase the probability of acquiring abundance estimates in remote areas. (underway)
5. Quantify killer whale predation of SSLs, particularly in the western and central Aleutian Islands.
6. Increase the frequency of Steller sea lion pup and non-pup surveys to a level sufficient to track population dynamics in the western DPS.

III. Habitats

A. Evaluate habitats of particular concern:

1. Assess whether Bering Sea canyons are habitats of particular concern, by assessing the distribution and prevalence of coral and sponge habitat, and comparing marine communities within and above the canyon areas, including mid-level and apex predators (such as short-tailed albatrosses) to neighboring shelf/slope ecosystems. (partially underway)

B. Baseline Habitat Assessment

1. Dynamic ecosystem and environmental changes in the northern Bering Sea and Arctic are occurring on a pace not observed in recorded time. In response to the new FMP for the Arctic,

assessment of the current baseline conditions is imperative. This effort, while of great scientific importance, should not supplant the regular surveys in the BSAI and GOA, which are of critical importance to science and management.

C. Fishing Effects on Habitat.

1. Conduct research on the effects of habitat modifications on spawning and breeding female red king crab, particularly in nearshore areas of southwest Bristol Bay.

Ongoing Needs

I. Fisheries

A. Fish and Fishery Monitoring

1. Continuation of State and Federal annual and biennial surveys in the GOA, AI, and EBS, including BASIS surveys and crab pot surveys, is a critical aspect of fishery management off Alaska. It is important to give priority to these surveys, in light of recent proposed federal budgets in which funding may not be sufficient to conduct these surveys. Recent substantial loss of funding for days at sea for NOAA ships jeopardizes these programs. These surveys provide baseline distribution, abundance, and life history data that form the foundation for stock assessments and the development of ecosystem approaches to management. These surveys are considered the highest priority research activity, contributing to assessment of commercial groundfish fisheries off Alaska.
2. Conduct routine surveys of subsistence use, fish, crab, and oceanographic parameters of the northern Bering Sea and Arctic Ocean. These surveys will become increasingly important under ongoing warming ocean temperatures because range expansions of harvested fishery resources are anticipated. If range expansions occur, data will be needed to adjust standard survey time series for availability.
3. Continue and expand cooperative research efforts to supplement existing surveys to provide seasonal or species-specific information for use in improved assessment and management. The SSC places a high priority on studies that provide data to assess seasonal diets and movements of fish and shellfish for use in studies of species interactions in spatially explicit stock assessments.
4. For groundfish in general, and rockfish in particular, continue and expand research on trawlable and untrawlable habitat to improve resource assessment surveys. For example, improved surveys, such as, hydro-acoustic surveys, are needed to better assess pelagic rockfish species that are found in untrawlable habitat or for semi-pelagic species such as northern and dusky rockfish.
5. Studies are needed to evaluate effects of the environment on survey catchability. For crabs, studies are needed on catchability, as it directly bears on estimates of the stock size for setting of catch quotas. Research to refine the estimates of survey catchability, q, used to infer absolute, rather than relative abundance, would substantially improve the quality of management advice. Particular emphasis should be placed on Tanner crab because of recent trends in stock status.
6. Continue research on the design and implementation of appropriate survey analysis techniques, to aid the Council in assessing species that exhibit patchy distributions and, thus, may not be adequately represented, either over or under estimated, in the annual or biennial groundfish surveys.
7. Improve biological data collection (e.g., age, size, maturity, and sex) of some bycatch species (e.g., sharks, skates, octopus, squid, sculpins, and grenadiers) to better quantify potential effects of bycatch on these stocks.

8. Advance research towards developing a quantitative female reproductive index for the surveyed BSAI crab stocks. The current stock-status assessment process for surveyed BSAI crab stocks uses the estimated mature male biomass at the presumed time of mating as the best available proxy for fertilized egg production. Research on mating, fecundity, fertilization rates, and, for snow and Tanner crab, sperm reserves and biennial spawning, is needed to develop annual indices of fertilized egg production that can be incorporated into the stock assessment process and to model the effects of sex ratios, stock distribution, and environmental change on stock productivity. Priority stocks for study are eastern Bering Sea snow and Tanner crab and Bristol Bay red king crab.
9. Continue and expand existing efforts to collect maturity scans (visual) during fisheries that target spawning fish.
10. Identification and recovery of archived data (e.g., historical agency groundfish and shellfish surveys) should be pursued. Investigate integrating these data into stock and ecosystem assessments.
11. Fishery independent survey of scallops (e.g., Yakutat area and other major GOA fishery locations).
12. Develop a long-term survey capability for forage fish (partially underway).

B. Stock Assessment

1. Acquire basic life history information (specifically, natural mortality, size at maturity, and other basic indicators of stock production/productivity) for sharks, skates, sculpins, octopus, and squid and data-poor stocks of crab, to allow application of Tier 5 or Tier 4 assessment criteria. There are two possibilities that would require dedicated research: (1) directly estimate fishing mortalities through large-scale tagging programs; and (2) develop habitat-based estimates of abundance based on local density estimates in combination with large-scale habitat maps. Little information is available, especially for sculpins, skates, octopuses, squids, grenadiers, and some sharks. (partially underway)
2. Improve estimates of natural mortality (M) for several stocks, including Pacific cod and BSAI crab stocks.
3. Validate and improve age determination methods for Pacific cod, Pacific sleeper sharks, and spiny dogfish. (partially underway)
4. Evaluate the assessment and management implications of hybridization of snow and Tanner crabs.
5. Quantify the effects of historical climate variability and climate change on recruitment and growth and develop standard environmental scenarios for present and future variability, based on observed patterns. There is also a clear need for information that covers a wider range of seasons than is presently available.
6. Develop projection models to evaluate the performance of different management strategies relative to the Council's goals for ecosystem approaches to management. Projection models are also needed to forecast seasonal and climate related shifts in the spatial distribution and abundance of commercial fish and shellfish. (partially underway)
7. To identify stock boundaries, expanded studies are needed in the areas of genetics, reproductive biology, larval distribution, and advection. Expanded tagging efforts are needed to support the development of spatially explicit assessments. High priority species for spatially explicit models include: walleye pollock, Pacific cod, sablefish, yellowfin sole, rock sole, arrowtooth flounder,

Pacific ocean perch, black spotted rockfish, rougheye rockfish, snow crab, and Atka mackerel. (partially underway)

8. Conduct genetic studies to provide information on sources and sinks for scallop larvae are needed to improve our understanding of the rate of larval exchange between scallop beds.
9. Develop age-structured models for scallop assessment.

C. Fishery Management

1. Evaluate the effectiveness (e.g., potential for overharvest or unnecessarily limiting other fisheries) of setting ABC and OFL levels for data-poor stocks (Tier 5 and 6 for groundfish and Tiers 4 and 5 for crab, e.g., squid, octopus, shark, sculpins, other flatfish, other rockfish, skates, grenadier, and crab). Research is needed to refine the basis for setting gamma for Tier 4 crab stocks. (partially underway)
2. Conduct retrospective analyses to assess the impact of Chinook salmon bycatch measures on the BSAI pollock fishery. Analyses should include an evaluation of the magnitude and distribution of economic effects of salmon avoidance measures for the Bering Sea pollock fishery. In this case, it is important to understand how pollock harvesters have adapted their behavior to avoid bycatch of Chinook and "other" salmon, under various economic and environmental conditions and incentive mechanisms.
3. Develop forecasting tools that incorporate ecosystem indicators into single or multispecies stock assessments, to conduct management strategy evaluations under differing assumptions regarding climate and market demands. Standardization of "future scenarios" will help to promote comparability of model outputs.
4. Develop database of product inventories (and trade volume and prices) for principal shellfish, groundfish, Pacific halibut, and salmon harvested by U.S. fisheries in the North Pacific and eastern Bering Sea.
5. Analyze current determinants of ex vessel, wholesale, international, and retail demand for principal seafood products from the GOA and BSAI.
6. Conduct pre- and post-implementation studies of the benefits and costs, and their distribution, associated with changes in management regimes (e.g., changes in product markets, characteristics of quota share markets, changes in distribution of ownership, changes in crew compensation) as a consequence of the introduction of dedicated access privileges in the halibut/sablefish, AFA pollock, and crab fisheries. "Benefits and costs" include both economic and social dimensions.
7. Conduct prospective analyses of the robustness and resilience of alternative management strategies under varying environmental and ecological conditions.
8. Conduct prospective and retrospective analyses of changes in the spatial and temporal distribution of fishing effort, in response to management actions (e.g., time/area closures, marine reserves, PSC and other bycatch restrictions, co-ops, IFQs).
9. Develop a framework for collection of economic information on commercial, recreational, and charter fishing, as well as fish processing, to meet the requirements of the MSFCMA sections 303(a)(5, 9, 13), 303(b)(6), and 303A.
10. Continue to evaluate the socio-economic effects from crab rationalization programs on coastal communities. This includes understanding economic impacts (both direct and indirect) and how the impacts are distributed among communities and economic sectors.

11. Improve estimation of fishery interactions (including direct competition and bycatch) with marine mammals (e.g., state managed gillnet fisheries), seabirds, and non-target groundfish (e.g., sharks, skates), and protected species.

II. Fisheries Interactions

A. Protected Species Interactions

1. Economic, social, and cultural valuation research on protected species (i.e., non-market consumptive use, passive use, non-consumptive use).
2. There is a need for studies of localized fishery-protected species interactions. Studies of interactions between Steller sea lions and fisheries are needed in the Central GOA, with an emphasis on seasonal prey fields, diet, and movement of sea lions and their prey. These studies should be conducted at appropriate spatial and temporal scales
3. Foraging ecology studies of SSL in the Commander Islands. Research techniques would be similar to item #1.
4. Foraging ecology studies of SSL in the Gulf of Alaska. In addition to at-sea tracking of older animals, outside of the Kodiak area the primary information needed from this sub-region is updated information on diet composition of SSL throughout the sub-region.
5. Maintain assessment of SSL vital rates in the Russian Far East and Commander Islands. Research techniques would be similar to item #4 and include expansion to autumn and winter periods.
6. Aerial photogrammetric survey studies of rookeries and haul-outs in Russia. This survey methodology would provide abundance estimates for sea lions in Russia directly comparable to estimates for Alaska.
7. More studies are needed to fully evaluate the possible linkages between fishery induced disturbances or local prey depletion for northern fur seals in the Pribilof Islands region. (underway)
8. Continue research on gear modifications and fishing practices for reducing bycatch, particularly of PSC species (e.g., salmon). (underway for crab)
9. Conduct studies of whale depredation of catch in long-line fisheries and surveys to improve the quality of long-line abundance estimates. (underway)

III. Habitat

A. Habitat Mapping

1. Improved habitat maps (especially benthic habitats) are required to identify essential fish habitat and distributions of various substrates and habitat types, including habitat-forming biota, infauna, and epifauna. (partially underway)
2. Begin to develop a GIS relational database for habitat, including development of a historical time series of the spatial intensity of interactions between commercial fisheries and habitat, which will be needed to evaluate impacts of changes in EFH on the growth, reproduction, and distribution of fish and shellfish.
3. Assess the extent of the distribution of Primnoa corals and skate egg case concentration sites in the GOA.

B. Function of Habitat

1. Evaluate relationships between, and functional importance of, habitat-forming living substrates to commercially important species, including juveniles.
2. Develop a time series of the impact of fishing on GOA, AI, and EBS habitats that could be used to assess: a) the impact of changes in management on the rate of habitat disturbance, and b) the impact of habitat disturbance on the growth, distribution, and reproductive success of managed species.
3. Evaluate effects of fishing closures on benthic habitats and fish production. There are many closures that have been in effect for various periods of time, for which evaluations have not been conducted (e.g. slope HAPCs recently designated in the western Gulf of Alaska).

IV. Other Areas of Research Necessary for Management

A. Ecosystem indicator development and maintenance.

1. Climatic indicators

2. Lower trophic level community production data

a) Collect primary production time series

b) Collect and maintain zooplankton production and biomass time series in the EBS. Develop, collect and maintain time series of zooplankton production and biomass for the AI, GOA and Arctic.

c) Collect and maintain zooplankton community composition time series in the Bering Sea. Develop, collect and maintain time series of zooplankton community composition for the GOA, AI, Arctic.

d) Collect and maintain benthic community composition, production and biomass time series in all regions.

e) Evaluate over-wintering strategies for arctic copepods and the impact of these strategies on the timing of pelagic availability.

3. Develop methods for incorporating ecosystem indicators into stock assessments and ecosystem assessments.

4. Develop methods to synthesize and integrate ecosystem indicators to identify appropriate thresholds for meeting management objectives.

5. Continue and expand cooperative research efforts to supplement existing at-sea surveys that provide seasonal, species-specific information on upper trophic levels (seabirds and marine mammals). Updated surveys to monitor distribution and abundance of seabirds and marine mammals are needed to assess impacts of fisheries on apex predators, improve the usefulness of apex predators as ecosystem indicators, and to improve ecosystem management.

6. Initiate and expand non-market valuation research of habitat, ecosystem services, and passive use considerations.

B. Research on Environmental Influences on Ecosystem Processes

1. Climate variability: monitor and understand how changes in ocean conditions influence managed species.

a) Maintain moorings. Development and maintenance of indices of the timing and extent of the spring bloom is a high priority. For this, maintenance of moorings, especially M-2, is essential. (underway)

b) Monitor seasonal sea ice extent and thickness: If recent changes in ice cover and temperatures in the Bering Sea persist, these may have profound effects on marine communities.

c) Measure and monitor fish composition: Evaluate existing data sets (bottom trawl surveys, acoustic trawl surveys, and BASIS surveys) to quantify changes in relative species composition of commercial and non-commercial species, identify and map assemblages, and monitor changes in the distribution of individual species and assemblages. Additional monitoring may be necessary in the Aleutian Islands, northern Bering Sea, and areas of the Gulf of Alaska.

d) Assess the movement of fish to understand the spatial importance of predator-prey interactions in response to environmental variability.

2. Conduct Research on Ocean Acidification

a) Collect and maintain time series of ocean pH in the major water masses off Alaska. (partially underway)

b) Assess whether changes in pH would affect managed species, upper level predators, and lower trophic levels. (partially underway)

3. Species' responses to multiple environmental stressors

a) Laboratory studies are needed to assess the synergistic effects of ocean acidification, oil pollution, and changes in temperature on productivity of marine species.

C. Basic research on trophic interactions

1. Collect, analyze, and monitor diet information, from all seasons in addition to summer, to assess spatial and temporal changes in predator-prey interactions, including marine mammals and seabirds. The diet information should be collected on the appropriate spatial scales for key predators and prey to determine how food webs may be changing in response to shifts in the range of crab, forage fish and groundfish.

2. Ecosystem structure studies: Studies are needed on the implications of food web interactions of global warming, ocean acidification, and selective fishing. For instance, studies are needed to evaluate differential exploitation of some components of the ecosystem (e.g., Pacific cod, pollock, and crab) relative to others (e.g., arrowtooth flounder).

D. Ecosystem Modeling

1. Food habits collections and ecosystem modeling to quantify interactions between SSL groundfish prey and the food web effects of changes in fishing mortality.

2. Modeling and field studies of ecosystem productivity in different regions (EBS, GOA and AI).

C-4 GOA Chinook salmon PSC motion
June 12, 2011

The Council adopts the preferred alternative described below.

Problem statement:

Magnuson-Stevens Act National Standards require balancing optimum yield with minimizing bycatch and minimizing adverse impacts to fishery dependent communities. Chinook salmon prohibited species catch (PSC) taken incidentally in GOA pollock fisheries is a concern, historically accounting for the greatest proportion of Chinook salmon taken in GOA groundfish fisheries. Salmon bycatch control measures have not yet been implemented in the GOA, and 2010 Chinook salmon bycatch levels in the area were unacceptably high. Limited information on the origin of Chinook salmon in the GOA indicates that stocks of Asian, Alaska, British Columbia, and lower-48 origin are present, including ESA-listed stocks.

The Council is implementing initial Chinook salmon PSC management measures for the GOA pollock fishery, including a hard cap and full retention requirement with improved monitoring and sampling opportunities to limit Chinook salmon PSC and support development of a sampling protocol to determine the stock of origin of Chinook taken by the GOA pollock fleet. Management measures are necessary to provide immediate incentive for the GOA pollock fleet to be responsive to the Council's objective to minimize Chinook salmon PSC.

Preferred Alternative:

Chinook salmon PSC limit and increased monitoring.

Component 1: PSC limit:

25,000 Chinook salmon PSC limit.

Apportion limit between Central and Western GOA:
Central GOA: 18,316
Western GOA: 6,684

Chinook salmon PSC limits shall be managed by NMFS in-season similar to halibut PSC limits.

If it is not possible to implement a Chinook salmon PSC limit in the first year for the full calendar year, it shall be implemented midyear for C and D seasons. The PSC limits under this scenario for C and D seasons, combined, will be as follows:

Central GOA: 8,929 Chinook salmon
Western GOA: 5,598 Chinook salmon

Component 2: Improved Chinook salmon PSC estimates:

Extend existing 30% observer coverage requirements for vessels 60'-125' to trawl vessels less than 60' directed fishing for pollock in the Central or Western GOA no later than January 1, 2013. Observer deployment under the restructured North Pacific Groundfish Observer Program will supersede expansion of coverage under this action.

Require full retention of all salmon in pollock trawl fisheries.

NFMS shall work with the processors to evaluate and address the quality of sorting at the plants to assist improvements in observer salmon estimates. The Council encourages NMFS to apply lessons learned from the BSAI to the GOA where applicable.

Processing plants, with assistance from NMFS, should endeavor to ensure their fish tickets accurately reflect the species and number of salmon, which will be delivered and sorted as salmon bycatch at their facilities.

NMFS is also encouraged to collaborate with industry to facilitate information sharing in order to speed delivery of in-season data (total catch and salmon counts, by species) for the NORPAC data system and Catch Accounting System.

C-4 GOA Chinook salmon PSC motion, attachment

Preferred alternative Chinook salmon annual PSC limit:

Central GOA: 18,316
Western GOA: 6,684

Preferred alternative for a Chinook salmon PSC limit for a midyear implementation:

The preferred alternative (PA) PSC limits for the first year under a midyear implementation are the result of the PA annual PSC level in each area multiplied by the average bycatch taken in the C and D seasons within each area across the years noted in the PA and adjusted upward by 25 percent.

According to Table 50 on page 76, the average level of bycatch 2001-2010, drop 2007 and 2010, for the C and D seasons was 39 percent in the Central GOA and 67 percent in the Western GOA.

Midyear PSC limit calculation:

Central GOA: (18,316 x 0.39) x 1.25 = 8,929
Western GOA: (6,684 x 0.67) x 1.25 = 5,598

Council motion on Bering Sea Non-Chinook Salmon Prohibited Species Catch
June 11, 2011

The Council requests staff revise the analysis as described below and bring it back for initial review.

Add the following option under Alternative 2, Component 1:

Option: Apply a hard cap (non-Chinook PSC limit) to vessels participating in the directed pollock fishery during June and July, in aggregate. This hard cap, if exceeded, would require all vessels affected by the cap to stop fishing until August 1.

The components under Alternative 2 for cap level, sector allocation, sector transfer, cooperative allocation, and cooperative transfer options would apply (see June 2011 EA pages 28-35). A hard cap applicable only to June and July will be derived from the range of options for B-season hard cap levels, adjusted to reflect the average proportion of non-Chinook salmon PSC in June and July relative to the B-season total.

Remove current Alternative 3 as a stand-alone alternative, and incorporate elements in the alternative as described below.

1. Revise Alternative 4 to read:

(new) Alternative 3:

Rolling Hot Spot (RHS) system – with RHS in regulation, participants in a vessel-level (platform level for Mothership fleet) RHS would be exempt from:

a large area trigger closure encompassing 80% of historical non-Chinook prohibited species catch with the trigger cap level options under what was formerly Alternative 3 (see June 2011 EA pages 35-36). This closure would apply to vessels that are not in an RHS system when total non-Chinook salmon PSC from all vessels (those in an RHS system and those not in an RHS system) reaches the trigger cap level, and would not be subject to sector or cooperative level allocations.

In addition to the RHS, vessels in the RHS system would be subject to:

Option 1: a trigger closure encompassing 80% of historical non-Chinook salmon PSC estimates in

Suboption 1: the June and July pollock fishery, in aggregate. This trigger closure would only apply in June and July.

Suboption 2: the B season pollock fishery. This trigger closure would apply for the full B season.

Option 2: a trigger closure encompassing 60% of historical non-Chinook salmon PSC estimates in

Suboption 1: the June and July pollock fishery, in aggregate. This trigger closure would only apply in June and July.
Suboption 2: the B season pollock fishery. This trigger closure would apply for the full B season.

Apply the components under what was formerly Alternative 3 for trigger cap levels, sector allocations, and cooperative provisions (see June 2011 EA pages 35-43). Trigger closures that are applicable only to June and July will be derived from the range of options for B-season trigger cap levels, adjusted to reflect the average proportion of non-Chinook salmon PSC in June and July relative to the B-season total.

Alternatives 2 and 3 are not mutually exclusive.

2. Analyze parameters of the RHS program under Alternative 3 that could be adjusted by the council including:
    - Modification of RHS to operate at a vessel level, instead of at the cooperative level;
    - Faster reaction/closure time (shorter delay between announcement and closure);
    - Amount of closure area;
    - Adjustments that would address timing and location of bycatch of Western Alaska chum stocks;
    - Base rates;
    - Possibilities by which the tier system may be amended to provide further incentives to reduce chum bycatch.

3. Make the following revisions to the Draft EA:
    - Add caveats to all sections describing the impacts to specific stocks describing the limitations of the stock identification and AEQ information;
    - Where run size impacts are presented for aggregated stocks (i.e. Western Alaska, coastal Western Alaska), clarify that these aggregations may mask impacts on smaller runs (i.e. Norton Sound);
    - Revise the analysis of pollock fishery impacts and potential foregone revenue for trigger area closures to present actual numbers for each year;
    - Include the discussion previously requested by the Council ~~of~~ for "a discussion of the meaningfulness of fines, including histograms of number and magnitude of fines over time as well as a comparison of penalties under the RHS program to agency penalties and enforcement actions for violating area closures."
    - Include a qualitative discussion of the impacts on salmon fisheries, i.e. impacts of fishing restrictions on drying fish, lower CPUEs, gas costs, increased travel time, fish camps and culture;
    - Include an expanded discussion of Norton Sound salmon fisheries by district including escapement and harvest information for an expanded time period and a full discussion of the tier II fishery.
    - Expand discussion of cumulative effects of the Area M commercial fishery on other western Alaska stocks.

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News & Notes

North Pacific Fishery Management Council
June 2011

Thank you, Nome

The Council held its June meeting in Nome, Alaska. The Nome Chamber of Commerce along with Norton Sound Economic Development Corporation were excellent hosts. Many BBQs were held on the beach. NSEDC hosted one complete with a gold panning demonstration and a Polar Bear Plunge. A reception was held at Old St. Joe's Cathedral sponsored by NSEDC and the Western Alaska Community Development Association. A BBQ was held at the Safety Roadhouse, the last stop on the Iditarod Trail . The weather stayed consistently sunny, well into midnight, which gave everyone a chance to get out and explore the area. Thanks to the City of Nome, to the Nome Chamber of Commerce, and to NSEDC, along with the businesses and individuals who helped put the events together and who helped our meetings run smoothly. And yes, there IS no place like Nome!

Council and Plan Team Appointments

Eric Olson and John Henderschedt were recently re-appointed to the Council by the Secretary of Commerce with their three year terms beginning in August. Additionally, Dr. Steve Martell from the University of British Columbia was appointed by the Council to the Crab Plan Team for his expertise in stock assessment and modeling. Congratulations.

Bering Sea Chum Bycatch

The Council held its first initial review on an analysis evaluating proposed management measures to minimize non-Chinook salmon bycatch in the Bering Sea pollock fishery. The proposed measures include hard caps on the pollock fishery; triggered time and area closures; and participation in the Rolling Hotspot (RHS) Program, a fleet-managed program for real-time bycatch area closures on 4-7 day time frames. The Council revised and restructured the suite of alternatives and options, and requested new information. Some of the changes included the following:

- An additional option for a separate hard cap for June and July when western Alaskan chum stocks are more prevalent in the bycatch. If reached, this cap would close all fishing for Bering Sea pollock until August 1.
- Removal from consideration complicated monthly area management options and triggers (formerly Alternative 3).
- Additional provisions to the RHS program for area closures based on historical bycatch proportions (80% and 60%) to which the fleet would be subject regardless of RHS participation.
- Analysis of additional parameters of the RHS system that could be adjusted by the Council to improve program performance.

The full Council motion is posted on the website. A revised set of alternatives based upon the Council's motion will also be posted. The Council further requested that the analysis be revised per its requests and come back to the Council for another initial review in early 2012. The exact meeting is yet to be determined. This schedule is in part to avoid reviewing the draft analysis at a Council meeting located in a place more difficult for rural western Alaska residents to access (e.g., Dutch Harbor in October 2011), and in part to avoid review at the December meeting, the months preceding which staff are focused on preparing stock assessments for the groundfish fisheries. This schedule means that the Council will review the analysis two more times prior to making a final decision: initial review in early 2012, and public review/final action at a subsequent meeting. This also provides ample time for the public to provide input on the proposed alternatives and analysis.

The Council also plans to convene another Rural Community Outreach Committee meeting this year (timing to be determined), and requested that the committee discuss whether and what type of further community outreach is needed on this issue.

Staff contact for the chum analysis is Diana Stram. Staff contact for subsistence issues and outreach is Nicole Kimball.

Swanberg Historic Dredge, Nome, Alaska

BSAI Crab Catch Specifications

The SSC recommended OFLs and ABCs for four of the ten crab stocks under the BSAI Crab FMP. This is the first year that ABC recommendations are made by the SSC to the Council in order to comply with Annual Catch Limit provisions. Six of the ten stocks will have OFLs and ABCs established following the summer survey information availability. Two of the ten stocks (Norton Sound red king crab and AI golden king crab) have OFL and ABC recommendations put forward at this time in order to have approved OFLs and ABCs prior to the summer fisheries for these stocks. The remaining two stocks (Adak red king crab and Pribilof Islands golden king crab) have OFLs recommended based on Tier 5 formulation (average catch) and OFLs and ABCs are recommended in the spring. The table of OFLs and ABCs for these stocks are posted on the Council website. The Crab SAFE report will be produced in the fall following the Crab Plan Team meeting and will include these 4 stocks as well as the recommendations on management of the remaining 6 stocks. Staff contact is Diana Stram.

Simon Kinneen of NSEDC shows his grilling expertise.

GOA Chinook Bycatch

At the June meeting, the Council took final action on management measures to limit Chinook salmon bycatch in the Western and Central GOA pollock fisheries. Chinook salmon are currently a prohibited species in the pollock fishery, and their capture must be avoided, but there are no specific management measures to minimize Chinook salmon bycatch. The Council adopted a prohibited species catch (PSC) limit of 25,000 Chinook salmon for the western and central GOA pollock fisheries. The annual cap is apportioned by area, and will close the pollock fishery in each area once the PSC limit is reached. The western and central GOA caps are:

Central GOA: 18,316 Chinook salmon
Western GOA: 6,684 Chinook salmon

The Council will also require vessels under 60 ft that are directed fishing for pollock to have observer coverage beginning no later than January 1, 2013. This primarily affects vessels in the Western GOA, where a large proportion of the fleet uses smaller boats. If the restructured observer program the Council already approved is implemented beginning in 2013, observers will be deployed under that program, otherwise vessels under 60 ft will need to comply with existing 30% observer coverage requirements until the restructured observer program comes online.

As part of this action, the Council will also require full retention of all salmon species by all vessels fishing in the pollock trawl fisheries. The purpose of full retention is to provide an opportunity for collection of scientific data or biological samples; fish that are retained may not be kept for human consumption unless they are delivered to an authorized prohibited species donation program. Currently, NMFS is only able to analyze samples from salmon that are caught as bycatch on observed pollock trips. Full retention is a key prerequisite to estimating the representative composition, by stock of origin, of Chinook salmon caught as bycatch in the GOA pollock fishery. At the June meeting, the Council heard testimony that all processors of GOA pollock (which, by regulation, must be delivered shoreside) have agreed to participate in SeaShare, an organization participating in the Alaska food bank donation program.

It is anticipated that the PSC limit may be implemented in mid-2012. If so, the Council has specified reduced PSC limits for the implementation year only, to be effective in the C and D pollock seasons. The PSC limits would be 8,929 Chinook salmon in the Central GOA, and 5,598 Chinook salmon in the Western GOA. Additionally, NMFS will work with the industry to improve observed and extrapolated Chinook salmon estimates and their timeliness.

The Council motion is posted on the Council website. Staff contact is Diana Evans.

Staff Tasking

During the staff tasking agenda item, the Council tasked staff to write and prepare discussion papers on several topics. Letters include: 1) a comment letter in response to advance notice of proposed rulemaking on potential revisions to National Standard 10 guidelines, dealing with safety at sea, noting performance of catch shares relative to safety and the responsibilities of the Enforcement Committee; 2) a letter to the agency requesting a clarification of the Council's role relative to tribal consultations; 3) a letter to the IPHC requesting assistance and cooperation with a halibut migration and stock assessment review workshop to be held prior to February if possible; and 4) a comment letter to the National Ocean Council on the draft strategic action plans. Discussion papers will be prepared on: 1) the potential to combine the GOA Pollock D-season into the A,B, and C seasons to reduce incidental catches of chinook salmon; 2) change the catch accounting of BSAI crab PSC from numbers to weight; and 3) alternative management measures for the charter halibut sector in times of low abundance to reduce uncertainty and mitigate negative economic impacts. Relative to the last discussion paper, the Council agreed to form a new Charter Management Implementation Committee to discuss issues and provide input relative to the discussion paper. Also during staff tasking, the Council further clarified that the halibut PSC package should retain both options to exempt or include in the PSC reduction (either as a % or as mt) the sideboard provisions for the AFA CVs, Am 80, and CGOA rockfish fleets. Changes to the problem statement may be considered in October. Staff contact is David Witherell.

Pribilof Islands Blue King Crab Rebuilding Plan

The Council reviewed catch data in conjunction with the upcoming public review draft for the Pribilof Islands blue king crab rebuilding plan. The primary purpose of the data review was to determine if there were differences in the applicable fisheries to which proposed closures would apply based upon examination of catch over the entire Pribilof District as compared with catch only in area 513 as in the previous analysis. Following review of these data, it was determined that the flathead sole fishery no longer met the criteria for inclusion in the closures. The fisheries which meet the threshold criteria are the trawl fisheries for rock sole, yellowfin sole, and other flatfish, as well as the Pacific cod hook-and-line and pot fisheries.

Per Council request, for the public review draft, an extrapolation will be made to include catch accruing in the entire Pribilof Island District without the use of extrapolation of rates from fisheries outside of this region (i.e. to account for unobserved fleets). Previously the Council also moved to include a sub-option for the trigger cap alternative under Option 5d to analyze an allocation by gear type of non-pelagic trawl (40%), hook-and-line (20%) and pot (40%). The Council requested that staff explore using the annual specifications process for gear allocation of a cap and to discuss the implications of a different, non-allocated cap whereby closures occur on a threshold basis (50%, 75%, 90% of the cap) and apply only to the gear type which has contributed the most in-season towards the bycatch at each threshold. This analysis will be included in the revised public review draft available in September 2011. Final action is scheduled for October 2011. Staff contact is Diana Stram.

Groundfish Management

The Council's SSC reviewed a NMFS discussion paper on several issues relating to Annual Catch Limit (ACL) measures for groundfish in the GOA and BSAI under National Standard Guideline 1. The SSC recommended that stock assessment authors and plan teams address this issue in the upcoming stock assessment cycle. The SSC recommended that stock assessment authors clearly lay out which sources of removals are currently included in the assessment, how removals from each source are estimated, and how they are being included in computing various reference points and counting them against harvesting specifications. To the extent possible, authors should discuss all known sources of mortality (including handling mortality, indirect mortality, subsistence, etc.) and which of these sources are considered in the assessment. A revised discussion paper and two working group reports on total catch accounting will be reviewed by the Groundfish Plan Teams at their August 2011 meeting.

The SSC also reviewed a report summarizing the recommendations for technical changes to the GOA and BSAI Pacific cod model for the 2011 assessments from three independent experts, the groundfish plan teams, and the public. The SSC accepted the six recommendations that could be compressed into 4 new models from the joint plan team. Each of these models addresses at least some concerns by all groups. Model 1 is last year's model. Model 2 is comprised of two unrelated changes: using splines for selectivity and dropping survey data prior to 1982. Model 3 attempts to estimate ageing bias within the model. Model 4 is the same as some that have been used in the past in eliminating most age data. Model 5 is a reconfiguration of the time blocks for selectivity that should simplify the model and result in estimation of fewer parameters. Draft GOA and BSAI Pacific cod assessments using these five models will be reviewed by the teams in August. A draft agenda for the Groundfish Plan Team meetings will be posted on the Council's website by the end of June. Contact Dr. Grant Thompson, NMFS-AFSC, or Jane DiCosimo for more information.

Meeting attendees were treated to a BBQ on the beach, in Nome, complete with a gold panning demonstration.

Upcoming Meetings

Crab Plan Team September 19-22, 2011 AFSC Seattle

Salmon FMP Workshop – September 14**,** Clarion Suites, Anchorage

Observer Advisory Committee: September 15-16 AFSC, Seattle

American Fisheries Society: September 4-8, 2011, Seattle

Charter Management Implementation Committee: Fall 2011

Scallop Plan Team (T) September 28, Anchorage (location TBD)

Wakefield Symposium September 14-17,2011 Anchorage

Groundfish Plan Teams – August 29-September 2, 2011 (T) November 14-18, 2011 Seattle

Nunivak HCA Boundary

At the June meeting, the Council scheduled a discussion of the boundary line of the Nunivak Island-Etolin Strait-Kuskokwim Bay Habitat Conservation Area (Nunivak HCA), established in 2008, to hear from the public and decide whether further action was appropriate. The Council received joint testimony from representatives of the Alaska Seafood Cooperative and the Bering Sea Elders Advisory Group. The bottom trawl industry and villages of the Yukon-Kuskokwim and Bering Strait regions, represented by these groups, respectively, have met several times since 2008, to discuss the need for changes to the Nunivak HCA boundary.

The two groups reported that they intend to continue meeting over the summer and in the fall, to exchange proposals and potentially negotiate a solution that will protect subsistence hunting and fishing, while at the same time provide for a commercial yellowfin sole fishery. They did not convey a need for Council action at this time. In light of the progress being made in these discussions, the Council chose to reschedule this agenda item for a future meeting, to allow interested parties to continue with their dialogue. Staff contact is Steve MacLean.

NBSRA Research Plan

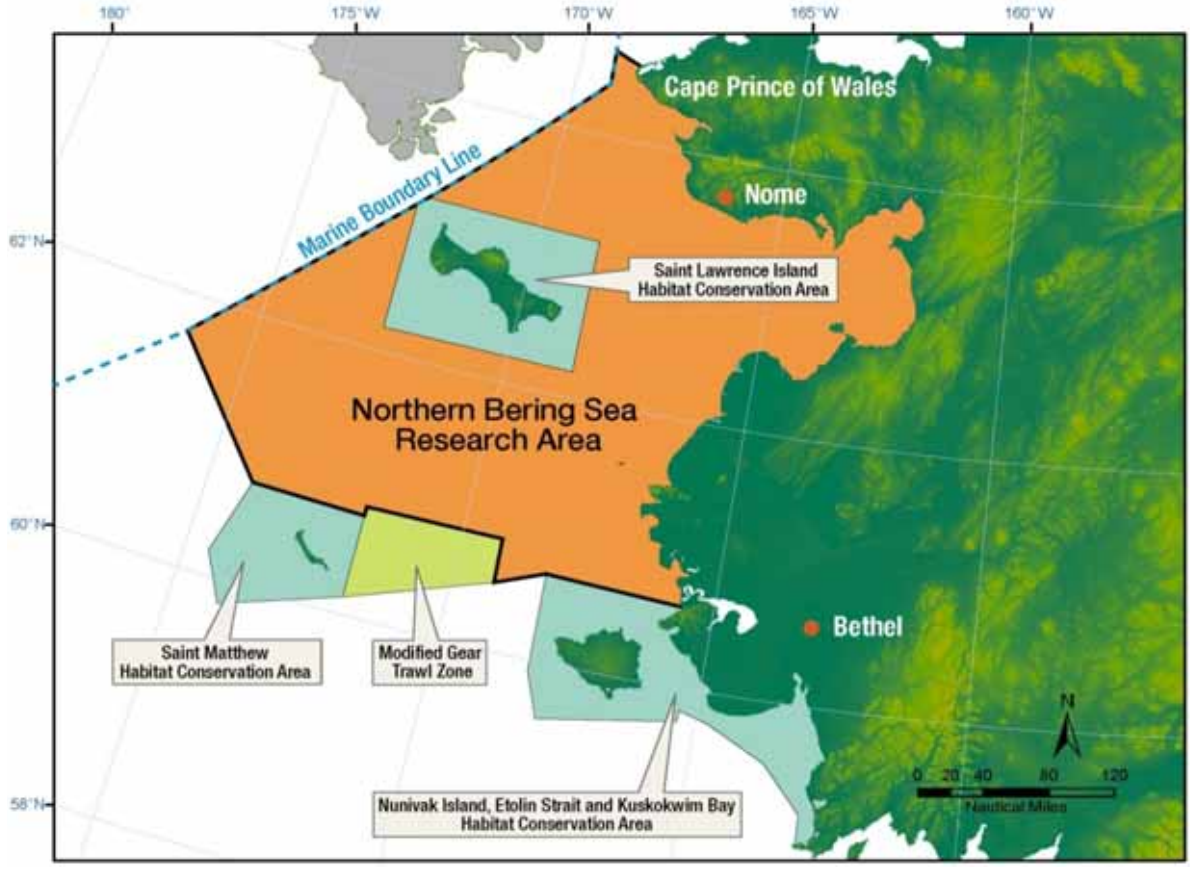
At the June meeting, the Council chose to take a step back from its current schedule for developing a research plan for the Northern Bering Sea Research Area (NBSRA). The NBSRA was implemented in 2008, and since then bottom trawling has been prohibited in the area. In establishing the NBSRA, however, the Council indicated that bottom trawling could be allowed in the future, under the guidelines of a scientific research plan. The Alaska Fisheries Science Center (AFSC) has been asked by the Council to develop the plan, and was planning to present a draft to the Council at the December 2011 meeting.

The Council received a progress report and plan outline from staff of the AFSC, and also considerable public testimony from tribes and members of communities adjacent to the research area. The Council suspended work on the development of the research plan, and instead initiated a discussion paper to compile background information on the NBSRA which should allow the Council to re-evaluate the feasibility and need to continue with developing a research plan in the future.

The paper will provide a review of information on the northern Bering Sea ecosystem, previous and ongoing relevant research in the northern Bering Sea, studies on chronic and acute effects of bottom trawling, and outcomes of the 2010 and 2011 science and community/subsistence workshops that were hosted by the AFSC. The Council noted that much of this information has already been synthesized by the AFSC for presentations at the various workshops. During testimony, the Council also received a draft of an upcoming publication of the Bering Sea Elders Advisory Group, which documents the dependence of Alaska Natives on northern Bering Sea areas, and promises to be a valuable information source for understanding subsistence needs.

The paper will also categorize areas within the NBSRA that are likely to be attractive in the future to commercial trawling interests, both in terms of target stock distribution and habitat type, in order to help focus outreach to, and input from, northern Bering Sea communities. Additionally, the paper will consider to what extent trawl impact research could be conducted in the Modified Gear Trawl Zone, adjacent to the NBSRA, which is currently open to bottom trawling.

In light of the change in Council direction, the AFSC is reconsidering the scope and timing of a scheduled community/subsistence workshop in September in Nome. Staff contact is Steve MacLean.



Halibut Management

Catch Sharing Plan Algorithm

At its June 2011 meeting the Council selected a hybrid of two mathematical approaches that previously had been considered for determining the maximum size of a one-fish bag limit for the Pacific halibut charter sector during periods of low halibut abundance. The Council will recommend this approach in a letter to NMFS during the public comment period on the proposed rule for the proposed halibut catch sharing plan (CSP). The proposed CSP was adopted in October 2008 and proposed for implementation in 2012. It calls for a maximum size limit in the charter halibut fishery at lower levels of combined charter and commercial catch limits, but it did not identify how the size limit would be determined.

Two approaches that previously were considered differ in their assumptions about the possible amount and effect of high-grading (the practice of releasing small halibut and continuing to fish in an attempt to keep a larger fish). Method A uses sample data from the previous year's fishery to estimate charter harvest for the upcoming year. It may underestimate charter harvest and result in the sector exceeding its catch limit if anglers are able to increase the average size of retained halibut relative to the previous year. Method B does not use sample data from the previous year's fishery. It uses a conservative assumption that all halibut harvested under the maximum length limit would be equal to the maximum length. Method B is the most biologically conservative because it is likely to overestimate charter harvest and result in charter harvest not reaching the sector's allocation. It was identified in the Council's analysis and draft proposed rule as part of the Council's preferred alternative for the CSP.

The Council reviewed a proposal for an alternative method to calculate a maximum size limit that was proposed by ADF&G staff. It combines extreme assumptions used in methods A and B to produce an intermediate result. The hybrid approach would be used to calculate a maximum size limit using data from a previous year in which the fishery was not constrained by a size limit, or a year in which a less constraining (higher) maximum size limit was in place to manage the charter fishery under its allocation. It assumes that under a size limit in the coming year: 1) the proportion of the halibut harvest that will be smaller than the size limit will equal the proportion that were under that length in the previous year; 2) the average weight of fish smaller than the size limit will remain unchanged from the previous year; and 3) the portion of the previous year's harvest that was larger than the prospective maximum size limit will be exactly equal to the size limit in the coming year. The Council selected the hybrid alternative as its recommendation to NMFS for implementing the CSP. The Council will submit a letter recommending the hybrid approach during the public comment period for the proposed rule for the CSP, which is expected to occur this summer. Staff contact is Jane DiCosimo.

Call for Nominations

The Council will form a Charter Management Implementation Committee to review a draft discussion paper on alternative measures to the current one fish of a maximum size under the Halibut Catch Sharing Plan's lowest catch limit tiers. The committee would meet sometime after August. The Council requests that nominations to the committee be submitted in writing to the Council no later than August 1. This is a no-host committee, meaning members are responsible for their own travel costs. Contact Jane DiCosimo.

NPRB Seeks Nominations

The North Pacific Research Board is seeking nominations for its Advisory Panel with expertise in the Bering Sea. The Advisory Panel members advise the Board on accomplishing its overall mission of fielding a high caliber, comprehensive research program that will improve understanding of the Gulf of Alaska, Bering Sea and Aleutian Islands, and Arctic Ocean ecosystems and their fisheries, and help to sustain and enhance the living marine resources.

The Board believes it is important to incorporate meaningful community involvement throughout its science program from planning to oversight and review. The Advisory Panel has a significant advice-giving role, with active involvement in setting research priorities. Advisory Panel members serve three-year terms and the new terms would commence retroactive to April 1, 2011. The Board covers travel, food and lodging for panel members for the annual Advisory Panel meetings which occur in April and September.

Nominations and self-nominations may be submitted to the Board by email to cynthia.suchman@nprb.org, or by regular mail to: Cynthia Suchman, Executive Director, North Pacific Research Board, 1007 West 3rd Avenue, Suite 100, Anchorage, AK 99501

Deadline for nominations is **Monday, July 25, 2011**. Please include a brief 1-2 page resume and full contact information, including email address. Please visit the Board's web site at www.nprb.org for more information about the Board and its activities.

The Board's consideration of nominations will occur early August, 2011. New members will be informed shortly thereafter, well ahead of the meeting September 13-14, 2011.

GOA Halibut Prohibited Species Catch Limits

In April 2011 the Council adopted a problem statement, a suite of alternatives, and a timeline to implement proposed reductions of 5, 10, or 15 percent to trawl and fixed gear apportionments of Pacific halibut Prohibited Species Catch (PSC) limits through the GOA Groundfish Specifications for 2012. The Council also requested a status report of the proposed action at its June 2011 meeting. An interagency staff meeting in May 2011 produced a draft action plan that identified the analytical requirements and implementation steps required to ensure that the Council's 2012 implementation timeline would be achieved. The Council would select a preliminary preferred alternative during initial review of the analysis in October 2011 for publication in the 2012/2013 GOA groundfish specifications proposed rule, so that its final preferred alternative adopted in December 2011 is a logical outgrowth of the proposed rule. The 30-day public comment period on the proposed rule may overlap the December 2011 Council meeting. Upon implementation (typically in March each year), Council recommendations for final GOA groundfish specifications, including revised halibut PSC limits and their seasonal apportionments, would replace those limits that automatically go into place on January 1. NMFS may implement the proposed changes in separate publications in the *Federal Register* if necessary.

During its June meeting, the Council reviewed the draft action plan that would result in an initial review draft of the analysis in October. The action plan included minor suggested changes to the problem statement, which the Council elected to address during initial review of the document. The Council clarified that its intent is not to modify the GOA Rockfish Program's halibut PSC allowance available during July. The Council also retained alternatives that would either reduce the halibut PSC sideboard limits for the GOA Rockfish Program, BSAI Amendment 80 sector, and the non-exempt AFA fleet at the same rate the overall trawl limit is reduced, or convert the sideboard limits to metric tons of halibut to insulate the sideboard limits from the proposed reductions. Contact Jane DiCosimo for more on all halibut management information.

Research Priorities

The Council has identified priorities for research in the next 1 to 5 years as those activities that are the most important for the conservation and management of fisheries in the Gulf of Alaska, Aleutian Islands, eastern Bering Sea, and the Arctic. This listing of priorities has two purposes: 1) to meet the requirements of the revised Magnuson-Stevens Act for the Councils to identify research that is needed in the next 5 years, and 2) to provide guidance on research priorities to the research community and to funding agencies.

The research priorities are separated into two categories: *Immediate Concerns* and *Ongoing Needs*. Immediate Concerns include research activities that must be addressed to satisfy federal requirements and to address pressing fishery management and ecosystem issues related to fishery management. Within this category the Council's Scientific and Statistical Committee (SSC) has indicated those Research Priorities for which *Research is Underway*. These are Research Priorities for which NPRB grants have been awarded or for which it is known to the SSC that one or more other agencies have undertaken the recommended research. These priorities will remain on the list until the recommended research is complete and evaluated in terms of its meeting the Research Priority that had been listed. Ongoing Needs include research to advance the Council's fisheries management goals as defined in the Groundfish PSEIS, other strategic documents of the Council (i.e., FMPs, AI FEP, and EFH, crab, salmon PSC, and other EISs) and NMFS. Ongoing Needs include efforts on which the assessment models depend for their annual updates. For example, without the survey information, the annual process of setting ABCs and OFLs for the managed stocks would be compromised. The Council sees these efforts as needed on an ongoing basis, and constituting the time series on which management is based. It should be recognized that research in these categories is being conducted or may be conducted through Federal, State of Alaska, North Pacific Research Board, and other funding sources. The Council's research priorities are posted on the website. Staff contact for groundfish is Jane DiCosimo, for crab and scallop is Diana Stram.

Meeting attendees took a break to participate in the Polar Bear Plunge during the recent Council meeting in Nome.

DRAFT NPFMC THREE-MEETING OUTLOOK - updated 6/15/11

September 26 -October 4, 2011 Unalaska, AK	December 5 -13, 2011 Anchorage, AK	January 30 -February 7, 2012 Seattle, WA
Observer Program: ***Review Restructuring Regulations; OAC Report***		AFA Vessel Replacement Sideboards: ***Discussion Paper (T)***
	Halibut Subsistence: ***Update***	
	Charter halibut alternative management measures: ***Committee Report and Discussion Paper***	
GOA Halibut PSC: ***Initial Review; white paper on IBQs***	GOA Halibut PSC: **Final Action**	Halibut Migration Model review; workshop report: ***SSC Review (T)***
GOA Pacific cod A-season opening dates: ***Discussion paper***	GOA P.cod Jig Fishery Management: ***Final Action (T)***	
GOA pollock D-season: ***Discussion paper (T)***		
	GOA Chinook Bycatch All Trawl Fisheries: ***Discussion Paper (T)***	
Salmon FMP: ***Initial Review; Workshop Report***	Salmon FMP: ***Final Action***	
	Halibut/sablefish IFQ changes: ***Discussion paper (T)***	
CQE vessel use caps: ***Initial Review/ Final Action (T)***	Halibut/Sablefish IFQ Leasing prohibition: ***Discussion paper (T)***	
CQE in Area 4B: ***Initial Review***	CQE in Area 4B: ***Final Action***	
Area 4B Fish-up: ***Discussion/Direction***		BS & AI P.cod split: ***Initial Review (T)***
BS & AI P.cod split: ***Discussion paper (T)***		Northern Bering Sea Research: ***Review Draft Plan (T)***
GOA Flatfish Trawl Sweep Modifications: ***Initial Review***	GOA Flatfish Trawl Sweep Modifications: ***Final Action***	BSAI Flatfish specification flexibility: ***Discussion Paper (T)***
BS Freezer longliners: ***Discussion paper on vessel replacement; Draft Regs Catch Monitoring & Enforcement***	Groundfish PSEIS: ***Discuss schedule***	Grenadiers and EC Category: ***Discussion paper (T)***
Crab EDR Revisions: ***Initial Review (T)***	Crab EDR Revisions: ***Final Action (T)***	
BSAI Crab: ***Report from stakeholders***		BSAI Tanner Crab rebuilding plan: ***Initial Review (T)***
BSAI Crab SAFE Report: ***Approve catch specifications***	Groundfish SAFE Report: ***Adopt final catch specifications***	
Pribilof BKC Rebuilding Plan: ***Final Action***	BBRKC spawning area/fishery effects: ***Updated Disc paper (T)***	
Tanner Crab Rebuilding: ***Review Alternatives***		ITEMS BELOW FOR FUTURE MEETINGS
	BS Habitat Conservation Area Boundary: ***Review (T)***	Crab PSC numbers to weight: Discussion paper
HAPC - Skate sites: ***Initial Review***	HAPC - Skate sites: ***Final Action***	Crab bycatch limits in BSAI groundfish fisheries
		AI P.cod Processing Sideboards: Initial Review
Groundfish catch specifications: ***Adopt proposed specifications***		BSAI Chum Salmon Bycatch: ***Initial Review in April***
		BSAI halibut PSC limit: Discussion paper
Halibut mortality on trawlers EFP: ***Review/Approve (T)***		GOA comprehensive halibut bycatch amendments: Disc paper
		MPA Nominations: Discuss and consider nominations

AI - Aleutian Islands
AFA - American Fisheries Act
BiOp - Biological Opinion
BSAI - Bering Sea and Aleutian Islands
BKC - Blue King Crab
BOF - Board of Fisheries
CQE - Community Quota Entity
CDQ - Community Development Quota
EDR - Economic Data Reporting
EFP - Exempted Fishing Permit
EIS - Environmental Impact Statement
EFH - Essential Fish Habitat
GOA - Gulf of Alaska
GKC - Golden King Crab
GHL - Guideline Harvest Level
HAPC - Habitat Areas of Particular Concern
IFQ - Individual Fishing Quota
MPA - Marine Protected Area
PSEIS - Programmatic Suplimental Impact Statement
PSC - Prohibited Species Catch
RKC - Red King Crab
ROFR - Right of First Refusal
SSC - Scientific and Statistical Committee
SAFE - Stock Assessment and Fishery Evaluation
SSL - Steller Sea Lion
TAC - Total Allowable Catch

Future Meeting Dates and Locations

September 26 - , 2011 in Unalaska
December 5 - , 2011 in Anchorage
January 30- Feb 7 2012 - Reannaissance Hotel, Seattle
March 26-April 3, 2012 Hilton Hotel - Alaska
June 4 - June 12, 2012 Kodiak Best Western
October 1-Oct 9, 2012 - Hilton Hotel, Anchorage
December 3 - Dec 11, 2012 - Anchorage

(T) Tentatively scheduled