

North Pacific Fishery Management Council

Dan Hull, Chairman
Chris Oliver, Executive Director
Telephone (907) 271-2809
www.npfmc.org



605 W. 4th Avenue, Suite 306
Anchorage, AK 99501-2252
Fax (907) 271-2817

Meeting Summary

229th Plenary Session
North Pacific Fishery Management Council
June 8-14, 2016
Best Western, Kodiak, Alaska

CONTENTS

B REPORTS.....	4
C1 OBSERVER PROGRAM	4
C2 BSAI CRAB – Plan Team Report, OFL/ABC for 3 Stocks.....	5
C3 BSAI CRAB RATIONALIZATION 10 – YEAR REVIEW.....	6
C4 TANNER CRAB CUSTOM PROCESSING	8
C6 SQUID TO ECOSYSTEM COMPONENT CATEGORY.....	9
C5 GOA TRAWL BYCATCH MANAGEMENT.....	10
Overarching Goal and Objectives	10
Alternative 3.....	19
Alternative 4.....	21
D1 RESEARCH PRIORITIES	29
E1 STAFF TASKING.....	30
Plan Team and SSC Nominations	30
Enforcement	30
Electronic Monitoring	32

Attachments

- 1) Time Log
- 2) Newsletter
- 3) Research Priorities

The North Pacific Fishery Management Council met in June at the Best Western Convention Center, Kodiak, Alaska. The following Council, NPFMC staff, and SSC and AP members attended the meetings.

Council Members

Dan Hull, Chair
Jim Balsiger/Glenn Merrill
Sam Cotten/Karla Bush
Craig Cross
Lauren Smoker

Kenny Downs
Duncan Fields
Dave Hanson
Roy Hyder
Andy Mezirow

Simon Kinneen
David Long
Bill Tweit
CAPT Phillip Thorne

NPFMC Staff

Jim Armstrong
Shannon Gleason
Sarah Marrinan
David Witherell
Steve MacLean

Peggy Kircher
Maria Shawback
Diana Evans
Jon McCracken
Matt Robinson (Sea Grant Fellow)

Chris Oliver
Sam Cunningham
Mike Fey (AKFIN)
Diana Stram

Scientific and Statistical Committee

The SSC met from June 6th to June 8th, 2016. Members present were:

Farron Wallace, Chair
NOAA Fisheries – AFSC
George Hunt
UW (Seattle)
Kari Fenske
Dept. F&W (Washington)
Ian Stewart
IPHC
Jennifer Burns
UAA (Anchorage)
Seth Macinko
URI (Rhode Island)

Anne Hollowed
NOAA - AFSC
Brad Harris
APU (Anchorage)
Franz Mueter
UAF (Fairbanks)
Matt Reimer
UAA (Anchorage)
Robert Clark
ADF&G (Oregon)
Sherri Dressel
ADF&G

Chris Anderson
UAF (Fairbanks)
Terry Quinn
UAF (Fairbanks)
Alison Whitman
Dept. F&W (Oregon)
Gordon Kruse
UAF (Fairbanks)
Jason Gasper
NOAA Fisheries
Kate Reedy
Idaho State University

Advisory Panel

The AP met from June 7th to June 11th, 2016. Members present were:

Ruth Christiansen
Kurt Cochran
John Crowley
Jerry Downing
Jeff Farvour
Art Nelson
Paddy O'Donnell

~~Jeff Kauffman~~
Angel Drobnica
Alexus Kwachka
Craig Lowenberg
Chuck McCallum
~~Dan Donich~~
Ernie Weiss (Chair)

Joel Peterson
Theresa Peterson
Sinclair Wilt
Jeff Stephan (Co-Vice Chair)
Matt Upton (Co-Vice Chair)
Ben Stevens
~~John Gruver~~

B REPORTS

The following reports were given and discussed. No action was taken.

B1 Executive Director's Report – Chris Oliver
B2 NMFS Management Report – Glenn Merrill
B2 Climate Science Strategy – Anne Hollowed
B3 NOAA Enforcement Report – Nathan Lagerwey & Will Ellis
B4 ADF&G Report – Trent Harthill
B5 USCG Report – CAPT Phillip Thorne
B7 Protected Species Report - Steve MacLean
B8 NPRB Report – Denby Lloyd

C1 OBSERVER PROGRAM

The Council heard an Annual Report from AFSC Chris Rilling, Dr. Craig Faunce, and Nathan Lagerwey. NPFMC staff Diana Evans gave the OAC Report. The following actions were taken:

Mr. Tweit made the following motion which was seconded by Mr. Hyder:

1) The Council recommends that the draft 2017 Annual Deployment Plan evaluate the following:

- Maintain dockside monitoring on pollock deliveries.
- Continue to place vessels under 40ft in the no selection pool.
- Continue to place vessels participating in the 2017 EM pre-implementation program into no selection pool, using the priority and number of vessels that will be determined through the EM workgroup and Council process.
- Maintain the 3 sampling strata defined by gear in 2017 and continue to use the optimal allocation to evaluate deployment rates while trying to maintain the expectation of at least 3 observed trips in each NMFS area.
- Continue to allow vessels to log 3 trips at a time in ODDS, and providing automatic release from coverage for the third observed trip for vessels 40-57.5 ft in length.
- Two additional strata for Council review in the 2017 draft ADP: 1) vessels delivering to tenders; and 2) partial coverage catcher-processors.

2) The Council recommends that NMFS incorporate the following in future annual reports:

- Continue to track trips by both gear type and vessel size categories (e.g., Table 4-1 in the 2015 annual report)
- Provide an examination of observer sampling results (such as percent of hauls sampled versus total hauls per trip, and sample fractions by vessel type, size, and gear size) in Chapter 4, or as a separate report.
- Include information on debriefing times for full coverage observers.
- Continue to incorporate evaluation of the EM strata

- 3) The Council continues to express concern about the timeliness of the release from US Treasury of observer fees and the fact that timely distribution of the fees is critical to maintaining coverage throughout the year.
- 4) The Council encourages the agency to continue work on developing variance methods, incorporating recommendations from the SSC.

VOTE ON MOTION: Motion passed unanimously June 9, 2016 at 8:22 a.m.

Mr. Tweit made the following motion which was seconded by Mr. Down:

Finally, the Council requests NMFS postpone action on AIS's application to be a full coverage observer provider until getting input from the Council after they have received the October white paper on LL2 observer issues that will include looking at the impacts of an observer provider being in the partial and full coverage categories in terms of (1) confidential fisheries information; (2) reimbursements by the Federal government; and (3) other unfair competitive advantages.

VOTE ON MOTION: Motion passed with one objection (Mr. Cotten) June 9, 2016 at 8:22 a.m.
(Note: Mr. Balsiger abstained from voting)

Mr. Fields made the following motion which was seconded by Mr. Cotten:

The Council also moves to write a letter to the National Marine Fishery Service thanking the agency for their financial support of the observer program and outlining the number of observer days and coverage rates that have been achieved. In addition, the letter would outline possible declines in observer days if additional federal funding is not received, and would request additional funding to maintain approximately the same number of annual observer days through the development and full integration of electronic monitoring in the observer program.

VOTE ON MOTION: Motion passed unanimously June 9, 2016 at 9:31 a.m.

C2 BSAI CRAB – Plan Team Report, OFL/ABC for 3 Stocks

The Crab Plan Team report was presented by NPFMC staff, Dr. Diana Stram and NMFS AFSC, Robert Foy. The following actions were taken:

Ms. Bush made the following motion which was seconded by Mr. Tweit:

The Council accepts the Crab SAFE report and adopts the OFL's and ABC's recommended by the SSC for the Western Aleutian Islands Red King Crab (WAIRKC), Pribilof Islands Golden King Crab (PIGKC), and the Aleutian Islands Golden King Crab (AIGKC) for 2016/2017. AIGKC OFL is 5,689 t and the ABC is 4,267 t. PIGKC is 93 t and the ABC is 70 t. WAIRKC is 56 t and ABC is 34 t.

VOTE ON MOTION: Motion passed unanimously June 9, 2016 at 10:37 a.m.

NO PUBLIC TESTIMONY WAS TAKEN ON THIS AGENDA ITEM

C3 BSAI CRAB RATIONALIZATION 10 – YEAR REVIEW

The Council heard a presentation of the 10-year program review from NPFMC staff, Sarah Marrinan and NMFS-AFSC Brian Garber-Yonts, as well a review on Social Impact Assessment by Mike Downs and Steve Weidlich from Northern Economics. The following actions were taken:

Mr. Cross made the following motion which was seconded by Mr. Tweit:

The Council accepts the 10 year review as complete and final.

Mr. Fields made the following substitute motion which was seconded by Mr. Long:

The Council acknowledges receipt of the 10-year-review and requests that staff incorporate the SSC's recommendations for subsequent Council review.

VOTE ON SUBSTITUTE MOTION: Motion failed 3/8 (Mr. Balsiger, Mr. Cross, Mr. Down, Mr. Hyder, Mr. Kinneen, Mr. Mezirow, Mr. Tweit, and Mr. Hull voting in opposition) June 10, 2016 at 1:51 p.m.

Mr. Balsiger made the following amendment to the main motion which was seconded by Mr. Cross:

With the addition of the SSC's suggested improvements listed below, (minus bullets 2,4, & 7) the Council accepts the 10 year review as complete and final.

Extend the Summary and Conclusion section, which identifies the pieces of evidence for (or against) achieving each implicit program objective, to highlight major questions that remain unanswered, performance indicators whose status is currently unknown, and data/information deficiencies that preclude assessing whether program objectives have been met. Extending the Summary and Conclusion section in such a way could serve as a useful starting point for initiating more in-depth analyses of particular items of concern.

- ~~Conduct additional analysis to establish whether differences in ex-vessel prices among share types (e.g., Table 9-10) persist after controlling for the vessels and processors involved, etc.~~
- In the SIA, major shifts in the geography of quota are driven by CDQ groups with business addresses in Anchorage or Wasilla. Since this benefit is clearly linked to the CDQ region, this should be distinguished from non-CDQ owned quota in presentation of this information.
- ~~The SSC is excited to see the AFSC's new market profiles, and looks forward to reviewing them in a future meeting, but this document is probably not the best venue for them.~~
- The document would be enhanced by a discussion of what was learned in the process of designing and implementing the data collection for monitoring and evaluating the crab rationalization program, and how it led to discontinuities

- that limit its current value.
- The community engagement indices in Appendix B could be enhanced by further decomposing the observed trends into different components. For example, are the observed trends in community engagement due to community-specific factors that affect engagement in all fisheries, or are the observed trends specific to engagement in the crab fisheries? Extending the analysis to include engagement in other fisheries and/or using some form of shift-share analysis to further decompose the trends could be useful in this regard.
- ~~Appendix A stands alone from the main document, and would be more relevant if both sections drew on the data presented between them to provide greater context for change. The SSC felt the SIA lacked a full assessment of impacts beyond quantitative shifts in vessels, quota, quota holders, for example, but recognizes that ethnographic fieldwork is the only way to responsibly characterize impacts.~~
- Qualifying words such as “only” should be removed from the community-by-community summaries. For example, statements such as “there are only two vessels” or “only 4 crew jobs” are not contextualized for the role those small numbers represent, and that the losses of those may adversely affect communities.

VOTE ON AMENDMENT TO MAIN MOTION: Amendment passed unanimously June 10, 2016 at 1:57 p.m.

VOTE ON MAIN MOTION: Motion passed unanimously June 10, 2016 at 1:57 p.m.

Mr. Cross made the following motion which was seconded by Mr. Tweet:

The Council will begin a discussion paper that will analyze the changing operational costs of crab IFQ holders and crab IPQ holders and the impacts of such cost changes on the historical distribution of first wholesale revenue that has been divided between crab harvesters and processors.

The analysis should review the current criteria used by the non-binding price formula arbitrator to allow the Council to determine if operational cost changes to the participants in the crab fisheries should be considered in setting the non-binding price formula.

VOTE ON MOTION: Motion passed unanimously June 10, 2016 at 2:00 p.m.

Mr. Fields made the following motion which was seconded by Mr. Cotten:

The AFSC develop a supplemental information paper based on newly available information about ownership of BSAI crab quota and/or vessels and/or quota lease arrangements as well as an assessment of BSAI crab program crew compensation.

WITHDRAW OF MOTION: Mr. Fields withdrew the motion, with concurrence of his 2nd June 10, 2016 at 2:09 p.m.

Mr. Fields made the following motion which was seconded by Mr. Kinneen:

The Council Chair, Executive Director, and Chairman of the SSC will work together to develop a proposal to establish a Social Science Plan Team and to outline the scope of its work. The proposal would be brought back to the Council for its review and consideration.

VOTE ON MOTION: Motion passed with one objection (Mr. Cross) on June 10, 2016 at 2:31 p.m.

C4 TANNER CRAB CUSTOM PROCESSING

The Council heard a presentation from NPFMC staff, Jon McCracken and NMFS' staff, Keeley Kent. The following actions were taken:

Ms. Merrill made the following motion which was seconded by Mr. Long:
(**Bold** indicates new text)

The Council adopts the purpose and need statement and recommends Alternative 2 without suboption 1 as its preferred alternative.

Purpose and Need:

Tanner crab processing facilities have consolidated to the extent that the IPQ use caps are constraining on the ability for the processing sector to process the entire allocation of Tanner crab without exceeding the caps. This then strands the portion of the Tanner crab allocation in excess of the caps from being harvested because sufficient processing facilities relative to the use caps do not exist **in the Bering Sea region**. In the 2015/2016 Tanner crab season, the gross ex-vessel value for this 10 percent of the Class A IFQ for EBT and WBT crab was estimated at \$3.4 million. Without relief from the restriction, harvesters, processors, and communities would lose the potential benefits from the stranded portion of crab. Management objectives would include providing relief from the processing use caps so that the full Tanner crab allocation could be harvested and processed.

Alternative 2 – Add BS (Bering Sea) Tanner crab to the list of crab fisheries in FMP Chapter 11, section *Clarification and Expressions of Council Intent*, and §680.42(b)(7) for which custom processing arrangements do not count against the IPQ use cap.

Mr. Tweit made the following amendment which was seconded by Mr. Cross:

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 303c and therefor 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 303c are consistent with these instructions.

VOTE ON AMENDMENT: Amendment passed no objection June 10, 2016 at 4:29 p.m.

VOTE ON MAIN MOTION: Motion passed no objection June 10, 2016 at 4:30 p.m.

Mr. Tweit made the following motion and was seconded by Mr. Hyder:

The Council will initiate a discussion paper to review additional solutions to the Tanner crab custom processing use cap issue, including 1) raise the Tanner crab IPQ use cap to 40%, 2) A share to B share conversion, and 3) apply exemption only in years when capacity to process is not sufficient (i.e., when there are less than 4 processors).

VOTE ON MOTION: Motion passed no objection June 10, 2016 at 4:41 p.m.

C6 SQUID TO ECOSYSTEM COMPONENT CATEGORY

The Council heard a presentation from NPFMC staff Dr. Stram and Jon McCracken. The following actions were taken:

Mr. Merrill made the following motion which was seconded by Mr. Cross:

The Council requests an additional initial review of the Analysis to move squid to the Ecosystem Component category. For clarity, the Council replaces the purpose and need statement and revises Alternative 2. Staff should address the SSC recommendations as practicable in the next initial review draft.

Purpose and Need

Squid are short-lived, highly productive, and an important prey species. No conservation concerns exist for squid populations in the BSAI and GOA. Squid are thought to be substantially more abundant than can be estimated from trawl survey data. Trawl surveys do not employ the proper gear or sample in locations that can provide reliable biomass estimates for most squids. Limited information hinders the development of reliable biological reference points, particularly OFLs and ABCs. As a result, current OFLs for squid are based on average catch calculations that are poorly linked to abundance. OFLs that are not representative of abundance do not achieve management goals for squid and could constrain groundfish fisheries unnecessarily. There are no directed fisheries for squid in either the BSAI or GOA, however squid bycatch is retained in some fisheries and often utilized to prevent waste. Given these factors, conservation and management “in the fishery” for squid may not be required in the BSAI and GOA FMPs. Under the National Standard 1 guidelines, the Council and NMFS could place squid into the “ecosystem component” category. Moving squid and constrain bycatch while alleviating unnecessary constraints on other groundfish fisheries.

Alternative 2: Move squid in both BSAI and GOA FMPs into the ‘Ecosystem Component’. Catch specifications (OFL, ABC, TAC) will no longer be required.

Implement regulations for the groundfish fishery that:

- Prohibit directed fishing for squid
- Establish a squid maximum retainable amount (MRA) when directed fishing for groundfish species at a level to discourage retention while allowing flexibility to prosecute groundfish fisheries
 - Option 1 MRA = 2%
 - Option 2 MRA = 10%
 - Option 3 MRA = 20%
- Require recordkeeping and reporting to monitor and report catch of squid species annually.

Encourage the Alaska Fisheries Science Center to continue to explore methods to estimate squid abundance and assess the squid stocks.

VOTE ON MOTION: Motion passed no objection June 11, 2016 at 10:31 a.m.

C5 GOA TRAWL BYCATCH MANAGEMENT

Overarching Goal and Objectives

Mr. Cotten made the following motion which was seconded by Mr. Fields:

Overarching Goal and Objective *(To be inserted after the Purpose and Need Statement and before the Goals and Objectives)*

The overarching goal of the Gulf of Alaska Trawl Bycatch Management program is to provide the fleet tools for the effective management and reduction of PSC and bycatch, and promote increased utilization of both target and secondary species while avoiding creation of new economic assets, and limiting the duration of harvest privileges that may be allocated (target species and/or prohibited species) in order to maintain opportunity for entry into the GOA trawl fisheries.

Mr. Merrill made the following amendment which was seconded by Mr. Cross:

(Strike Out indicates deletion, **bold** indicates insertion)

The overarching goal of the Gulf of Alaska Trawl Bycatch Management program is to provide the fleet tools for the effective management and reduction of PSC and bycatch, and promote increased utilization of both target and secondary species while **minimizing economic barriers for new participants by limiting harvest privileges** ~~avoiding creation of new economic assets, and limiting the duration of~~ harvest privileges that may be allocated (target species and/or prohibited species) in order to maintain opportunity for entry into the GOA trawl fisheries.

VOTE ON AMENDMENT: Amendment passed 6/5 (Mr. Cotten, Mr. Fields, Mr. Kinneen, Mr. Mezirow and Mr. Hull voting in opposition) June 13, 2016 at 3:48 p.m.

Mr. Tweit made the following amendment which was seconded by Mr. Hyder:

Council moves to ~~strike~~ the word “overarching” both in the title and in the first sentence.

VOTE ON AMENDMENT: Amendment failed 4/7 (Mr. Merrill, Mr. Cotten, Mr. Fields, Mr. Kinneen, Mr. Mezirow, Mr. Long and Mr. Hull voting in opposition) June 13, 2016 at 4:12 p.m.

VOTE ON MAIN MOTION: Motion passed 9/2 (Mr. Hyder & Mr. Tweit voting in opposition) June 13, 2016 at 4:14 p.m.

Alternative 2

Mr. Merrill made the following motion:

(Revisions to Alternative 2 (motion 1 of AP) Additions are in **bold** and underline font. Deletions are in ~~striketrough~~ font)

The Council adopts the following revisions to Alternative 2.

ALTERNATIVE 2. Gulf of Alaska Trawl Bycatch Management Program for the Western Gulf, Central Gulf and West Yakutat areas. The following elements apply to the program:

1. Observer Coverage and Monitoring

All trawl vessels in the GOA will be in the 100% observer coverage category **(or carry electronic monitoring at such time it is an option for trawl vessels)**, whether they participate in the voluntary cooperative structure or the limited access fishery with trawl gear. NMFS will develop monitoring and enforcement provisions necessary to track quota, harvests, and use caps for catcher vessels and catcher processors, including those necessary for gear conversion. The Council authorizes NMFS to report weekly vessel-level bycatch information as authorized under MSA Sec 402(b)(2)(A). Full retention of allocated target species is required.

~~The Council request staff to evaluate the ability/challenges for the fleet to meet the full retention requirement for allocated species if the prohibition for directed fishing for Pollock and cod remains in effect for the time period of Nov 1 to Dec 31.~~

2. Sector eligibility

Inshore sector: Shoreside processors with an eligible FPP and harvesters with an eligible FPP and LLP endorsed for GOA trawl. Allocations are based on trawl landings during the qualifying years with a CV trawl LLP or a CP trawl LLP that did not process catch onboard. Any CP LLP not used to process catch offshore during the qualifying years will be converted to a CV LLP at the time of implementation.

Offshore sector: Am 80 vessels defined in Table 31 CFR Part 679 and their replacement vessels, and their current GOA trawl LLP. Allocations are based on trawl landings during the qualifying years with a CP trawl LLP that processed catch onboard.

3. Allocated species (more than one option can be selected)

a. Target species:

- Option 1. Pollock (610/620/630/640) and Pacific cod (WG/CG)
- Option 2. WGOA rockfish (northern, dusky, and Pacific ocean perch) and WY rockfish (dusky

and Pacific ocean perch)

b. Secondary species:

Option 1. Sablefish (WG, CG, WY). Allocations of CG sablefish under the CG Rockfish Program are maintained.

Option 2. Thornyhead rockfish, shortraker rockfish, rougheye/blackspotted rockfish, other rockfish (WG, CG). Allocations of CG rockfish under the CG Rockfish Program are maintained.

Suboption: Big skates and longnose skates

Option 3. (*Mutually exclusive with Options 1 and 2*) Cooperative measures are required to manage secondary species under maximum retainable amounts (MRAs), as opposed to cooperative allocations.

c. PSC species: Halibut and Chinook salmon

4. Sector allocations of target and secondary species

Allocations to the trawl CV sector for WG and CG Pacific cod (Am 83), CGOA rockfish program (Am 88), and GOA pollock (Am 23) are maintained. Allocations to the trawl CP sector for the CGOA rockfish program are maintained. GOA flatfish eligibility for the trawl CP sector under Am 80 is maintained.

a. Pollock and Pacific cod:

Pollock and Pacific cod TACs would be allocated to the inshore sector; the offshore sector would receive an incidental catch allowance (ICA) for Pacific cod and pollock and be managed under maximum retainable amounts.

Option 1. Revise the GOA-wide pollock apportionments to 30% (A); 30% (B); 20% (C); 20% (D)

Option 2. Modify the pollock fishery to two seasons: Jan 20 to June 10 and June 10 to Nov 1. (If selected with Option 1, the seasonal split would be 60%/40%).

Suboption: The second season for pollock is June 10 to December 31.

Option 3. Modify the Pollock trip limit from 136 mt (300,000 lbs.) to 159 mt (350,000 lbs.).

None of the options change the distribution of GOA pollock among Areas 610, 620, or 630 as established through the specifications process.

Option 4: Modify the trawl Pacific cod fishery to two seasons: Jan 20 to June 10 and June 10 to Nov 1. **No change to the A and B season allocations.** (~~The seasonal split for trawl gear would be maintained per Am 83.~~)

Suboption: The second season for Pacific cod is June 10 to December 31.

b. Other target species and secondary species: Sector allocations would be based on each sector's retained catch (Option: total catch for secondary species) from:

Option 1. 2008 – 2012

Option 2. 2007 – 2012

Option 3. 2003 – 2012

c. In addition to the options based on catch history above, options for establishing WG and WY rockfish sector allocations include:

Option 1. Allocate based on Am 80 sideboards

Option 2. Allocate to the CP sector only. The CV sector is prohibited from directed fishing and managed under MRAs.

- Option 3. Establish a CV sector allocation of WG rockfish of 2% - 5%. Any unharvested rockfish (by a specified date) is reallocated to the CP cooperatives.

5. Sector allocations of PSC

a. Chinook salmon:

The Chinook salmon PSC limit allocated pro rata based on pollock trawl landings is a CV allocation only of:

- Option 1. 25,000 (status quo based on Am 93)
- Option 2. 18,750 (25% reduction)

Chinook salmon PSC allocated pro rata based on trawl CV and CP non-pollock landings (excluding CG rockfish program for the CV sector) are based on GOA Amendment 97. Any Chinook salmon PSC caught in WY comes off the cooperative's Chinook salmon PSC limit.

b. Halibut:

Historical PSC use would accrue to the history of the sector in which the license holder operated (i.e., PSC associated with vessels that operated as CVs would accrue to the CV sector PSC apportionment; PSC associated with vessels that operated as CPs would accrue to the CP sector PSC apportionment.)

- i. The halibut PSC limit allocated pro rata based on CV and CP trawl landings (excluding the CG rockfish program) is:

- Option 1. 1,515 mt (status quo under Am 95 by 2016, with full 15% reduction in place)
- Option 2. 1,364 mt (additional 10% reduction relative to 2016, phased in over a two-year period)
- Option 3. 1,288 mt (additional 15% reduction relative to 2016, phased in over a three-year period)
- Option 4. 1,212 mt (additional 20% reduction relative to 2016, phased in over a three-year period)
- Option 5. 1,136 mt (additional 25% reduction relative to 2016, phased in over a three-year period)

- ii. Halibut PSC apportionment between the CP and CV sectors will be based on halibut PSC use during:

- Option 1. 2008 - 2012
- Option 2. 2007 - 2012
- Option 3. 2003 - 2012

c. Rockfish Program PSC:

Any Rockfish Program **halibut** PSC that would roll over for use in other fisheries ~~under the current rules~~ (after the set aside for halibut savings) can be transferred to the Gulf program cooperatives through inter-cooperative transfer. Halibut PSC from CV cooperatives cannot be transferred to CP cooperatives.

Rockfish program Chinook salmon PSC would be rolled over to the Gulf program CV cooperatives in proportion to their initial annual non-pollock Chinook salmon PSC allocations.

- d. Gear modification. Option: gear modifications for crab protection.

6. Voluntary inshore cooperative structure

- a. Annually allocate species to the cooperative, based on aggregate retained catch histories

associated with member vessels' LLPs during the qualifying years:

- Option 1. 2008 – 2012
- Option 2. 2007 – 2012
- Option 3. 2003 - 2012

- b. Apportion halibut PSC and Chinook salmon PSC limits to each cooperative on a pro rata basis relative to target fisheries of vessels in the cooperative [such as, pollock Chinook salmon PSC cap divided by area (**WG and CG/WY**) and then based on pollock landings; non-pollock Chinook salmon cap divided by area and then based on non-pollock landings (excluding CG rockfish); halibut PSC apportioned by area and then in proportion to target landings associated with cooperative members' LLPs.] Once in the cooperative, PSC can be used to support any target fisheries within the cooperative at any time (no seasonal **or area** PSC apportionments).

Option: Each processor controls a portion of the annual PSC within a cooperative [options: 10% - 40%]. Each processor would assign the incremental PSC to vessels in the cooperative under the terms of the cooperative agreement. PSC made available by these agreements cannot be used by vessels owned by the processor (a vessel with more than 10% ownership by a processor using individual and collective rules for determining ownership).

Suboption: No prohibition on processor-owned vessels using processor-controlled PSC. Processor-owned vessels cannot access an amount of the cooperative's PSC greater than the amount they brought into the cooperative.

Suboption: Alternatives for distribution of PSC quota to processors:

- 1) NMFS holds the PSC and distributes the PSC quota upon the processor's request.
- 2) Distribute to processors using the same method as harvester's portion of the PSC quota is distributed.

- c. Participants can choose to either join a cooperative or operate in a limited access fishery [sector- level, non-transferable target allocations and PSC]. Harvesters would need to be in a cooperative with a processor by November 1 of the previous season to access a transferable allocation.

- d. Initial (2 years) cooperative formation (suboption: in the first two years of each harvester's participation in a cooperative) would be based on the majority of each license's historical landings (aggregate **GOA** trawl groundfish deliveries, excluding Central GOA rockfish harvested under a rockfish cooperative quota allocation) to a processor during:

- Option 1. The qualifying years for determining target species allocations.
- Option 2. 2011 – 2012, or the two most recent qualifying years they fished.

If a license has qualifying landings in both regions (WG and CG/WY), initial cooperative formation would be based on the majority of the license's historical landings to a processor in each region (the license holder would join a cooperative in each region). After the initial cooperative formation period, a license holder can choose to be in one cooperative per region on an annual basis. **Option: * A processor (facility) can only be in one cooperative on an annual basis.**

- e. Each cooperative would be required to have an annual cooperative contract filed with NMFS. Formation of the cooperative would require a cooperative contract signed by (options: 33%, 51%, or 80%) of the license holders eligible for the cooperative and the processor (option: and community in which the processor is located). If a license does not have any qualifying landings, it could still join a cooperative but the license holder does not count toward the cooperative formation threshold.

Cooperative members shall internally allocate and manage the cooperative's allocation per the cooperative contract. Cooperatives are intended only to conduct and coordinate harvest activities of the members and are not FCMA cooperatives.

- f. The annual cooperative contract must include:
- Bylaws and rules for the operation of the cooperative
 - Annual fishing plan
 - Operational plan for monitoring and minimizing PSC, with vessel-level accountability, as part of the annual fishing plan
 - Clear provisions for how a harvester and processor may dissolve their contract after the cooling off period of two years. If a harvester wants to leave that cooperative and join another cooperative or the limited access sector, they could do so if they meet the requirements of the contract
 - Specification that processor affiliated harvesters cannot participate in price-setting negotiations except as permitted by general anti-trust law
- g. Cooperative members are jointly and severally responsible for cooperative vessels harvesting in the aggregate no more than their cooperative's allocation of target species and PSC allowances, as may be adjusted by annual inter-cooperative transfers.
- h. Cooperatives will submit a written report annually to the Council and NMFS. Specific criteria for reporting shall be developed by the Council and specified by NMFS as part of the program implementing regulations.
- i. Permit post-delivery transfers of annual allocations among cooperatives. All post-delivery transfers must be completed by December 31.

7. Voluntary catcher processor cooperative structure

- a. Annually allocate species to the cooperative. For an eligible CP, the CP history of the vessel in the qualifying years will be assigned to the LLP on the vessel at the time of implementation of the program. Qualifying years:
- Option 1. 2008 – 2012
 - Option 2. 2007 – 2012
 - Option 3. 2003 – 2012
- b. Apportion halibut PSC and Chinook salmon PSC limits to each cooperative on a pro rata basis relative to target fisheries of vessels in the cooperative [such as, non-pollock Chinook salmon cap divided by area and then based on non-pollock landings (~~excluding CG rockfish~~ **including a PSC apportionment to CG rockfish program participants on a pro rata basis relative to CG rockfish targets**); halibut PSC apportioned by area and then in proportion to target groundfish landings associated with cooperative members' LLPs (**excluding CG rockfish**).] Once in the cooperative, PSC can be used to support any target fisheries within the cooperative at any time (no seasonal **or area** PSC apportionments).
- c. Participants can choose to either join a cooperative or operate in a limited access fishery [sector-level, non-transferable target allocations and PSC]. No later than November 1 of each year, an application must be filed with NMFS by the cooperative with a membership list for the year. In order to operate as a cooperative, membership must be comprised of:
- Option 1: at least 2 separate entities (using the 10% individual and collective rule) and/or
 - Option 2: at least [2 – 4] eligible LLP licenses. An LLP must have associated catch history to

count toward the threshold.

- d. Cooperative members shall internally allocate and manage the cooperative's allocation per the cooperative contract. Cooperatives are intended only to conduct and coordinate harvest activities of the members and are not FCMA cooperatives.
- e. The contract would require signatures of all LLP holders in the cooperative. The annual cooperative contract must include:
 - Bylaws and rules for the operation of the cooperative
 - Annual fishing plan
 - Operational plan for monitoring and minimizing PSC, with vessel level accountability, as part of the annual fishing plan
- f. Cooperative members are jointly and severally responsible for cooperative vessels harvesting in the aggregate no more than their cooperative's allocation of target species, secondary species, and PSC, as may be adjusted by annual inter-cooperative transfers.
- g. Cooperatives will submit a written report annually to the Council and NMFS. Specific criteria for reporting shall be developed by the Council and specified by NMFS as part of the program implementing regulations.
- h. Permit post-delivery transfers of annual allocations among cooperatives. All post-delivery transfers must be completed by December 31.
- i. No person may hold or use more than the following percentage of allocated target species CP cooperative quota in each region, using the individual and collective rule:
 - Option 1. 30%
 - Option 2. 40%

8. Fishery dependent community stability (applies to inshore cooperatives)

a. Consolidation limits

Option 1. Harvest use (ownership) caps in each region (WG and CG/WY). Harvesters that exceed these percentages are grandfathered into the program. No person may hold or use more than the following percentage of individual target species CV cooperative quota, using the individual and collective rule:

- Suboption 1. 3%
- Suboption 2. 5%
- Suboption 3. 7%

Option 2. Vessel use caps are also applicable within the cooperatives. A vessel may not be used to harvest more than the following percentages of individual target species cooperative quota issued to the CV sector:

- Suboption 1. 3%
- Suboption 2. 10%
- Suboption 3. 15%

Option 3. Processor use caps (facility-based) in each region (WG and CG/WY). Processors that exceed these percentages during the qualifying years are grandfathered into the program. No processor shall receive or process more than the following percentage of individual target species issued to the CV sector:

- Suboption 1. 10%
- Suboption 2. 20%
- Suboption 3. 30%

b. Regionalization of target species quota

Target species cooperative quota would be required to be landed in the region in which it is designated (WG or CG/WY designation) based on historical delivery patterns during the following years:

- Option 1. The qualifying years for determining target species allocations.
- Option 2. 2011 - 2012.
- Option 3. Target species CG quota that has historically been landed in Kodiak would have a port of landing requirement to be delivered to Kodiak; CG quota not historically landed in Kodiak would be regionalized (WG or WY/CG).

c. Active participation criteria

To be eligible to purchase a GOA trawl CV license or catch history severed from a license, a person must be eligible to document a fishing vessel in the U.S. (status quo) and must:

- Option 1. Hold at least (options: 20% - 30%) ownership of a trawl vessel; or provide documentation of participation as a captain or crew in the GOA trawl groundfish fishery for 150 days (verified by a signature on a fish ticket or crew members' affidavit) for at least (options: 1, 2, or 4) fishing trips in the GOA groundfish trawl fishery in the most recent two years previous to purchase. **A trawl vessel is a vessel to which a trawl LLP is assigned or used to harvest groundfish with trawl gear.**
- Option 2. Communities do not need to meet the criteria under Option 1.
- Suboption (applies to Option 1 or 2):
To retain catch history, a person must be eligible to purchase catch history.

9. **Transferability**

- a. (Annually) Full transferability of cooperative quota, including PSC separately, for annual use within the cooperative. Cooperatives can engage in inter-cooperative transfers of annual allocations to other cooperatives on an annual basis. CP annual cooperative allocations may be transferred to inshore cooperatives; inshore annual cooperative allocations cannot be transferred to CP cooperatives. Inter-cooperative transfers must be processed and approved by NMFS.
- b. (Long-term) The LLP is transferable, with the associated history of the target species (which, when entered into a cooperative, brings with it a pro rata share of PSC).

Allocated species history is severable from a **GOA** CV trawl license and transferable to another eligible **GOA** CV trawl license (which, when entered into a cooperative, target species history brings with it a pro rata share of PSC). Transferred history retains the regional delivery designation. PSC cannot be permanently transferred separately from the license. **(Options below are not mutually exclusive.)**

Option 1: No more than (20%, 30%, or 40%) of a CV trawl license's catch history during the qualifying years, for each allocated species, may be transferred to a different CV trawl license.

Option 2: Only CV trawl license holders in the lowest quartile of CV trawl license holdings, per allocated species, may transfer all of the catch history associated with those species from their GOA trawl CV license.

Option 3: (Cooling off provision) License transfers (sale) and the severability provisions are prohibited for CV licenses in the first two years of the program.

10. **Gear conversion**

Pacific cod allocations associated with a trawl CV license may be fished with pot gear; a pot endorsement is not necessary but the license must have the appropriate area endorsement. Harvest

would continue to be deducted from the vessel's annual trawl quota account and would not affect the pot gear Pacific cod sector allocations. Similar to status quo, PSC taken with pot gear does not accrue to a PSC limit or cooperative PSC allocation.

11. Limited access trawl fisheries (CV and CP)

If a license holder chooses not to join a cooperative, it may register to fish in the limited access fishery with an eligible FFP and LLP endorsed for GOA trawl by November 1 of the previous season. Under the limited access fishery, the LLP's historic share of (non-transferable) target species will be fished in a competitive fishery open to all trawl vessels in the sector who are not members of a cooperative. The catcher vessel limited access fishery will be subject to all current regulations and restrictions of the LLP and MRAs.

PSC limits in the limited access fishery will retain status quo apportionments by area, season, and/or fishery. Halibut and Chinook salmon PSC limits are annually apportioned to the limited access fishery on a pro rata basis relative to groundfish catch histories associated with LLPs that are not assigned to a cooperative, as reduced by:

- Option 1. 10%
- Option 2. 20%
- Option 3. 30%

12. Sideboards

Sideboards that apply under the Rockfish Program for the CV and CP sectors, GOA non-exempt AFA CV sideboard limits, non-AFA crab vessel groundfish sideboards that apply to GOA trawl, and Amendment 80 groundfish and halibut PSC sideboard limits in the GOA, are removed for species allocated under the GOA trawl bycatch management program.

~~The Council requests further discussion of sideboards on directed fishing for Pacific cod with pot gear in the WG and CG (harvest that accrues to the Pacific cod pot sector allocations), as well as further information to consider whether CV sideboards are necessary for the BSAI Pacific cod and yellowfin sole fisheries.~~

13. Program review

Per the Magnuson Stevens Act, a program review would be conducted five years after implementation and every seven years thereafter.

14. Cost recovery and loan program

Per the Magnuson Stevens Act, a cost recovery program would be implemented to recover the incremental agency costs of the program related to data collection, analysis, and enforcement, up to a maximum of 3% of the ex-vessel value from landings of species allocated under the program. Up to 25% of cost recovery fees may be set aside to support a loan program for purchase of shares by fishermen who fish from small vessels and first-time purchases of shares under the program. Loan qualification criteria would need to be defined.

Mr. Fields made the following amendment which was seconded by Mr. Cotten:

Change the following under #9 Transferability Section b, Option 1 (**bold** indicates new text and ~~strikeout~~ indicates deletion)

1. Transferability

Option 1: No more than ~~(20%, 30%, or 40%)~~ **(5% to 40%)** of a CV trawl license's catch history during the qualifying years, for each allocated species, may be transferred to a different CV trawl license.

VOTE ON AMENDMENT: Amendment passed no objection June 13, 2016 at 4:31 p.m.

Mr. Fields made the following amendment which was seconded by Mr. Cotten:

Active Participation: Designate (Option 5-25%) of allocated species (directed and bycatch) as "AP" shares and annually issue AP shares to each qualifying vessel that asserts by affidavit prior to the season that the quota will be fished on the vessel by a (Option: minimum 20-51%) owner of the vessel while the owner is aboard the vessel. The vessel may, during the season, transfer unused bycatch species to a co-operative but directed species allocations of AP quota to qualifying vessel are specific to the vessel and may not be transferred to the co-operative or another vessel.

VOTE ON AMENDMENT: Motion failed 3/8 (Mr. Merrill, Mr. Cross, Mr. Down, Mr. Hyder, Mr. Mezirow, Mr. Long and Mr. Tweit and Mr. Hull voting in opposition) June 13, 2016 at 4:12 p.m.

VOTE ON MAIN AMENDED MOTION: Motion passed (one objection Mr. Fields) June 13, 2016 at 5:12 p.m.

Alternative 3

Mr. Cotten made the following motion which was seconded by Mr. Fields:

Council moves the recommendations under Alternative 3 clarifications (number 4 through 6) (Revisions to Alternative 3; additions are in **bold** and underline font. Deletions are in ~~strikethrough~~ font).

4. Voluntary inshore cooperative structure

- b. PSC species allocated to the cooperative are halibut and Chinook salmon, divided first by area (WG and CG/WY) based on historical PSC use (*options: 2003 – 2012; 2007 – 2012; 2008 - 2012*). Once in the cooperative, PSC can be used to support any target fisheries within the cooperative in that area at any time (no seasonal PSC apportionments). PSC would be apportioned to the cooperatives as follows (a different option may be selected for each area, WG and CG/WY):

Option 1. Equal shares. Annually apportion PSC limits to each cooperative on an equal share basis relative to the number of member vessels in the cooperative.

~~Suboption: The non-pollock Chinook salmon PSC limit and halibut PSC limit would first be divided between cod and flatfish landings, before allocating equal shares per vessel to each cooperative~~

Option 2. Vessel dependency. Apportion (Option: 10% - 50%) halibut PSC and Chinook salmon PSC limits to each cooperative on a pro rata basis relative to the dependency on GOA trawl groundfish by species (pollock, flatfish, and Pacific cod) and area (WG and CG/WY) of the vessel assigned to the cooperative member's LLP vessels the 3 prior years. The remaining PSC would be distributed based on equal shares. The vessel's dependency on GOA trawl groundfish, by species and area, is established by affidavit at the time of filing intent to join a cooperative or participate in the Limited Access fishery. Dependency on GOA groundfish is based on a threshold of (Option: 25% - 75%) of total pounds landed, by species and area, in GOA trawl groundfish fisheries.

5. Transferability and consolidation limits

(Annually) Allow transferability of PSC cooperative quota for annual use within the cooperative. Limit the amount of each PSC species of annual PSC cooperative quota PSC limit a ~~person can~~ vessel may use in the cooperative to (options: 110% - 150%) of what ~~they~~ it brought into the cooperative.

Cooperatives can engage in inter-cooperative transfers of PSC to other cooperatives on an annual basis. Inter-cooperative transfers must be processed and approved by NMFS. Limit the amount of annual PSC cooperative quota a cooperative can transfer to another cooperative to no more than (option: 10% - 50%) of the initial cooperative allocation.

~~(Long-term) LLPs are transferable. PSC cannot be permanently transferred separately from a license or vessel.~~

6. Limited Access trawl CV fishery

If a license holder chooses not to join a cooperative, it may fish in the limited access fishery with an eligible FFP and LLP endorsed for GOA trawl. Vessels must pre-register to operate in the limited access fishery by ~~November~~ October 1 of the previous year.

VOTE ON MOTION: Motion passed no objection June 13, 2016 at 5:22 p.m.

Alternative 4

Proposal:

ALTERNATIVE 4. Gulf of Alaska Trawl Bycatch Management Program (Alternative 2 and Alternative 3) with a Community Fisheries Association allocation or Adaptive Management Program. (*Options 1 and 2 are mutually exclusive.*)

Option 1. Community Fisheries Association (CFA)

The CFA program would distribute target species of Pacific cod and pollock, secondary species (to mirror Council's allocation of species under Alternative 2, Element 3.b), and halibut and Chinook PSC quota to qualified applicants representing eligible Gulf communities, in order to provide benefits to communities. The intent of the CFA program is to mitigate the potential economic impacts and undesirable social costs of the GOA Trawl Bycatch Management Program on GOA communities with a historical dependence on groundfish. Further, it is the intent of the program to sustain current participation and access to groundfish fisheries by community-based vessels.

This provision would allocate the annual federal total allowable catch (TAC) for trawl target species and associated prohibited species catch (PSC) to a CFA, a non-profit entity described in more detail in below. The CFA would be established under the Fishing Communities provisions of the Magnuson Stevens Act (MSA)¹, and would be required to comply with the provisions of that section. The CFA would determine how to distribute the annual harvest privileges according to criteria consistent with the goals and objectives, which will be approved by the Council and set in federal regulation. Annual reporting to the Council would be required. The intent of the CFA is to ensure that quota is anchored in GOA communities and that community concerns, including sustained community participation, entry opportunities, equitable crew compensation, bycatch reduction, among others are addressed in the initial program design. CFA quota would be anchored to GOA eligible communities as defined by the Council and would not be available for purchase by individuals or corporations.

Element 1. Allocate 5% - 15% of the fishing quota for all species allocated to CVs under the program to a Community Fishing Association established under §303A(c)(3) of the MSA. Quota allocated to the Community Fishing Association may not be sold.

Element 2. Number of CFAs

Option 1. One GOA CFA

Suboption 1. The CFA will be a single Gulf-wide administrative entity with two divisions, one for the CG and one for the WG. Each division will establish their own contract terms and criteria for distributing quota.

¹U.S.C. § 1853A(c)(3)

Option 2. Two CFAs (one for the WG and one for the CG)

Element 3. Goals and objectives for a Community Fishing Association:

a. Council-established Goals and Objectives for the CFA (in regulation and/or the FMP):

1. Provide for the sustained (current and historical) participation of fishing communities (MSA National Standard 8).
2. Minimize adverse economic impacts on fishing communities (MSA National Standard 8).
3. Assist entry-level and small vessel owner-operators, captains and crew and fishing communities (MSA §303A(c)(5)(C)).
4. Incentivize additional bycatch savings beyond standard requirements by rewarding those willing to adopt additional measures to reduce bycatch with access to additional CFA quota.

b. The CFA may respond to several of the Council's established Goals and Objectives for the program (numbers refer to Council Goals and Objectives):

4. Authorize fair and equitable access privileges that take into consideration the value of assets and investments in the fishery and dependency on the fishery for harvesters, processors, and communities.
6. Promote community stability and minimize adverse economic impacts by limiting consolidation, providing employment and entry opportunities, and increasing the economic viability of the groundfish harvesters, processors, and support industries.
13. Minimize adverse impacts on sectors and areas not included in the program.
14. Promote active participation by owners of harvest vessels and fishing privileges.

c. Possible CFA goals and objectives adopted by the CFA within Council objectives:

- ~~1. Maintain the historical number of active trawl vessels home ported in CFA communities.~~
- ~~2. Maintain the historical number of active trawl skippers that are resident in CFA communities.~~
- ~~3. Maintain the historical number of GOA trawl vessel crewpersons that are resident in CFA communities.~~
- ~~4. Maintain the amount of quota owned and/or operated by CFA community residents.~~
5. 1. Maintain crew compensation **for CFA quota** at levels established prior to the rationalization program.
6. 2. Enable fishermen to transition into the GOA trawl fishery under the new management
7. 3. Facilitate gear conversion within provisions of main program.

Element 4. Communities eligible for participation via the CFA

Eligible communities are Kodiak, Homer, Seward, Whittier, Valdez, Cordova, as well as communities within the Western Gulf, Central Gulf, or West Yakutat regulatory areas that meet the CQE eligibility criteria:

~~In order to be eligible for participation, a community must meet the following criteria:~~

- ~~— Adjacent to saltwater located within the Western, Central, or West Yakutat regulatory areas of the GOA coast of the North Pacific Ocean;~~
- ~~— Population of less than 6,500 (based on 2000 census);~~
- ~~— Consists of residents having any Gulf (WG, CG, WY) groundfish commercial permit and/or fishing or processing activity as documented by CFEC in the last ten years (2004-2014);~~
- ~~— Have a high potential for economic and social impacts associated with a LAPP program on harvesters, captains, crew, processors, and other businesses substantially dependent upon the fishery, or the potential for improving economic conditions in remote coastal communities lacking resources to participate in harvesting or processing activities in the fishery; and~~
- ~~— Have submitted a community sustainability plan through the CFA.~~

Element 5. The CFA must provide community sustainability plan which includes:

a. Description of board, governance structure:

The administrative entity shall be comprised of a Board of Directors as follows:

Option 1. (applies to Element 2, Option 1 Suboption 1 or Option 2)

The Governor of the State of Alaska shall appoint the initial CFA Board of Directors from names submitted for each of the designated seats. Board members shall serve staggered 3 year terms. Thereafter, when a term expires, names to fill the expired term, by seat designation, shall be submitted to the CFA and will be selected by member communities on a one vote per community basis. The Board of Directors will be selected via a nomination process in which each interest group submits nominations to the relevant borough government (Kodiak Island Borough for the Central Gulf and Aleutians East Borough for the Western Gulf). Board members will serve 4-year terms. The relevant borough assembly will then appoint a representative from the nominees in a public meeting. The Boards will be structured as follows:

Central Gulf (9 seats)

Kodiak Borough government (1 seat)

Kodiak City government (1 seat)

Kenai Borough government

Cook Inlet/Prince William Sound Non-CQE (1 seat)

At-large CQE or non CQE community seat (1 seat)

Trawl sector (1 seat)

Processors (1 seat)

Fixed gear sector (1 seat)

Crew-**trawl or non-trawl** (1 seat)
Rural**CQE** Community Member (1 seat)

Western Gulf (9 seats)
Aleutians East Borough (1seat)
City of King Cove (1 seat)
City of Sand Point (1 seat)
At-large community seat **King Cove** (1 seat)
At-large community seat Sand Point (1 seat)
Trawl sector (1 seat)
Processors (1 seat)
Fixed gear sector (1 seat)
Crew – **trawl or non-trawl** (1 seat)

~~Option 2. (Applies to Element 2, Option 1 without the suboption)~~

~~The Board of Directors will be selected via a nomination process in which each interest group submits nominations to the relevant city or borough government (crew will apply to the borough government within which they reside). Board members will serve 4 year terms. The relevant borough assembly will then appoint a representative from the nominees in a public meeting. The Board will be structured as follows:~~

~~Aleutians East Borough (3 reps)
Lake and Peninsula Borough (1 rep)
Kodiak Borough (2 reps)
Yakutat Borough (1 rep)
Kenai Borough (2 reps)
City of Kodiak (2 reps)
Crew (1 seat)
Trawl sector (1 seat)~~

The CFA will be governed by an Executive Committee with administrative and oversight responsibilities for the organization.

~~Option 1: (applies to Option 1 above)~~

~~The Board of Directors will vote on the Executive Committee, which consists of members from the Board of Directors for the Central and/or Western Gulf of Alaska regions~~
~~. Executive Committee members will serve [4] 3-year **staggered** terms. Executive Committee will consist of:~~

~~Kodiak Island Borough/City Government (1 seat)
Aleutians East Borough (1 seat)~~

~~Trawl sector (1 seat)~~
~~Fixed gear sector (1 seat)~~
~~Processor (1 seat)~~
~~Crew (1 seat)~~

~~Option 2: (applies to Option 2 above)~~

~~The Board of Directors will vote on the Executive Committee, which consists of members from the Board of Directors. Executive Committee members will serve 4-year terms. It will consist of:~~

~~Aleutians East Borough (1 rep)~~
~~Lake and Peninsula Borough (1 rep)~~
~~Kodiak Borough (1 rep)~~
~~Yakutat Borough (1 rep)~~
~~Kenai Borough (1 rep)~~
~~City of Kodiak (1 rep)~~
~~Trawl sector (1 seat)~~

b. Description of quota distribution process:

Quota will be leased on an annual (option: every 3 years) basis according to distribution criteria established by the Board which meet the goals and objectives for the CFA established by the Council in regulation. To ensure that quota leased from the CFA achieves the goals and objectives established by the Council, quota will be leased subject to specific contract terms which meet the goals and objectives adopted by the Council.

Eligibility to receive quota distribution on an annual basis will be tied to owning a qualified LLP/vessel or fishing that quota on a qualified LLP/vessel. (Option: A qualified LLP is defined as any GOA endorsed groundfish LLP.) The vessel must be active in the fishery (to be defined by CFA Board of Directors). The Board of Directors will develop specific scoring criteria to provide benchmarks and distribution relative to meeting the performance standards.

~~Quota may be distributed based on a combination of fishing history, code of conduct, GOA dependence, entry level needs and bycatch performance standards. For instance, quota distribution could be based 20% on history, 20% code of conduct (including but not limited to limits on lease rates, equitable crew compensation, community hire preference) 20% GOA dependence, 20% entry level needs, 20% bycatch performance.~~

Contract terms may include:

- Delivery/landing requirements based on historical delivery patterns.
- Membership in a co-op/risk pool and compliance with bycatch avoidance measures.

- Active participation in the fishery – either owner-onboard or significant ownership interest in a vessel.
- Crew share standards.
- Contract terms will be developed by the CFA in accordance with goals and objectives set out by the Council.

The CFA's lease rates:

Option1: will be capped at a level which will cover administrative costs for the quota entity and will not exceed reasonable administrative costs as audited by NMFS (not to exceed 5-10%).

Option 2: will be managed by the CFA in accordance with the goals and objectives established by the Council and CFA Board of Directors through the Community Sustainability Plan.

~~To receive quota, harvesters must join a cooperative. Vessels must also comply with a set list of contract terms via a contract with the CFA. Contract terms will be phased in over the initial 2-year period to allow time for the fleet to adapt.~~

~~An appeal/redress mechanism will need to be established for community members to express disagreement with how the quota is being leased. This appeals process must include NMFS since the agency is charged with providing due process and fair, impartial hearings.~~

Processor Cooperatives. Vessels must be part of a cooperative to have access to quota distributions from the CFA. The co-op must be consistent with the harvester/processor structure required and defined by the Council for the fishery overall.

New Entrants. When a new entrant joins the fishery by purchasing a vessel or permit, they will be eligible to lease quota for primary, secondary and PSC species based on the distribution criteria established by the CFA.

Consolidation limits. Limit the amount of CFA quota that a lessee can use:

Option 1: 5-25% of the CFA's quota.

Processors would also be limited by a cap to ensure that all processing is not consolidated into too few processors in each area (Western and Central GOA).

Option 1: 10-30%

Use of Lease Proceeds by CFA.

Option 1. Use of lease proceeds is restricted to operational and administrative expenses

Option 2. Use of lease proceeds is restricted to investments that directly support community based fisheries and enhance entry level opportunities within eligible communities.

- c. Goals and objectives for the CFA, and explanation of how the CFA intends to meet those goals and objectives
- d. Description of how the CFA will meet the goals of sustaining community participation in the fishery, providing for new entry/inter-generational transfer, and encouraging active participation
- e. Description of how the plan will address the social and economic development needs of coastal communities

Element 6. Require an annual report **on or before January 31 as a public document** to the **Agency Council and communities**

The purpose of the annual report is to provide programmatic information to enable NMFS and the Council to assess the CFA's performance regarding Council goals and objectives and adherence to the Community Sustainability Plan.

Element 7. CFA Cooperative Program Integration

- Annual quota allocated to the CFA may not be sold.
- The CFA will operate within the cooperative structure of the main program. Quota leased from the CFA must be utilized on a license and accessed through a cooperative, and is subject to that cooperatives' exit provisions.
- CFA quota will be subject to the same set of rules as other quota in the program such as bycatch management, observer coverage and monitoring, sector allocations, cooperative structure, and gear conversion.
- If selected by the Council, regionalization and port of landing requirements will apply to CFA quota (option: do not apply port of landing requirements).
- Quota leased from a CFA counts toward any vessel and ownership use caps.

Mr. Merrill made the following amendment which was seconded by Mr. Cotten:
(Strike the following language)

Proposal:

ALTERNATIVE 4. Gulf of Alaska Trawl Bycatch Management Program (Alternative 2 and ~~Alternative 3~~) with a Community Fisheries Association allocation or Adaptive Management Program. (*Options 1 and 2 are mutually exclusive.*)

VOTE ON AMENDMENT: Amendment passed no objection June 13, 2016 at 6:10 p.m.

Mr. Merrill made the following amendment which was seconded by Mr. Tweit:
(Strike the following language)

The CFA's lease rates:

~~Option 1: will be capped at a level which will cover administrative costs for the quota entity and will not exceed reasonable administrative costs as audited by NMFS (not to exceed 5-10%).~~

~~Option 2: will be managed by the CFA in accordance with the goals and objectives established by the Council and CFA Board of Directors through the Community Sustainability Plan.~~

VOTE ON AMENDMENT: Amendment passed no objection June 13, 2016 at 6:14 p.m.

Mr. Tweit made the following amendment which was seconded by Mr. Down:

(Under Element 5, Option 1 – add the following 2 options)

Option 1. (applies to Element 2, Option 1 Suboption 1 or Option 2)

The Governor of the State of Alaska shall appoint the initial CFA Board of Directors from names submitted for each of the designated seats. Board members shall serve staggered 3 year terms. Thereafter, when a term expires, names to fill the expired term, by seat designation, shall be submitted to the CFA and will be selected by:

**Option 1: member communities on a one vote per community basis,
Option 2: the Governor of the State of Alaska.**

VOTE ON AMENDMENT: Amendment passed no objection June 13, 2016 at 6:20 p.m.

VOTE ON AMENDED MAIN MOTION: Motion passed no objection June 13, 2016 at 6:22 p.m.

Mr. Merrill made the following motion which was seconded by Mr. Tweit:

The Council directs staff to provide a preliminary analysis describing the impacts of the alternatives adopted by the Council. This preliminary analysis should clearly describe the impacts of the components of the alternatives.

The Council requests that NMFS publish a Federal Register Notice announcing a new public scoping opportunity on the Council's purpose and need, goals and objectives, and the alternatives adopted by the Council. NMFS should provide a scoping report that summarizes the results of this public scoping process.

VOTE ON MOTION: Motion passed no objection June 13, 2016 at 6:28 p.m.

D1 RESEARCH PRIORITIES

The Council heard a presentation from NPFMC staff, Jim Armstrong as well as a presentation from NPRB Denby LLOYD. The following actions were taken:

Mr. Tweit made the following motion which was seconded by Mr. Merrill:

Move to adopt the SSC recommended Research Priorities with the following exceptions:

Projects 148, 163, 165, 178, 192, 203, 207, 209, 211, 226, 228, 249, 364, 381, 390 - contain the current Council Priority

Project 511 – changes from Important to Urgent

Project 535 – changes from Strategic to Urgent

Project 556 – changes from Urgent to Important

In addition, the Council moves to adopt the SSC recommendations regarding metadata.

VOTE ON MOTION: Motion passed no objection June 14, 2016 at 10:21 a.m.

Mr. Tweit made the following motion which was seconded by Mr. Merrill:

Tasks a Council SSC/Workgroup to discuss differences in recommended priorities and make recommendations for any further changes in definitions as necessary.

VOTE ON MOTION: Motion passed no objection June 14, 2016 at 10:24 a.m.

Mr. Tweit made the following motion which was seconded by Mr. Kinneen:

Tasks Council staff with outreach to NPRB, AFSC, and others to discuss how to organize research priorities to make them more useful to those other bodies.

VOTE ON MOTION: Motion passed no objection June 14, 2016 at 10:27 a.m.

E1 STAFF TASKING

The Council heard from NPFMC Executive Director, Chris Oliver. The following actions were taken:

Plan Team and SSC Nominations

Mr. Cross made the following motion which was seconded by Mr. Kinneen:

Council moves to appoint the following members to the designated Plan Team and SSC:

GOA Grounfish Plan team – Ben Williams
GOA Groundfish Plan Team – Patrick Lynch
BSAI Groundfish Plan Team – Dr. Alan Hicks
SSC - Lew Coggins

VOTE ON MOTION: Motion passed no objection June 14, 2016 at 12:53 p.m.

Enforcement

Mr. Hyder made the following motion which was seconded by Mr. Fields:

Council moves to approve and accept the recommendations of the Enforcement Committee on the Terms of Reference for the Enforcement Committee. (New language in **bold** and underlined, deletions in ~~strikeout~~ font)

Enforcement Committee Terms of Reference

Chairman Hyder offered two changes to the Enforcement Committee Term of Reference. Mr. Hyder recommended the first term of reference be amended to include consideration of safety at sea as an enforcement committee consideration. The suggested paragraph in the Terms of Reference would read as follows, with additions underlined and deletions in ~~strikeout~~:

Establishment and Statement of Purpose. *The North Pacific Fishery Management Council (Council) may establish and maintain an Enforcement Committee to advise it on matters related to enforceability of fishery plans and regulations. The Committee's primary function is to review proposed plans, regulations, or other management actions and provide their assessment of enforcement issues as early as possible in the development process. The Committee would not be limited to purely enforcement aspects, but would also consider part of its role to be discussion and development of monitoring and compliance approaches that facilitate implementation of, and compliance with, management program regulations, and consideration of measures that could affect safety at sea.*

Mr. Hyder also proposed a change in the second Term of Reference concerning the selection of the committee chair. The suggested paragraph in the Terms of Reference would read:

Membership. *~~The Committee will be Chaired by a member of the Council, as appointed by the Council Chair, and additional~~ Committee members will be appointed by the Council Chair from governmental agencies and organizations having expertise relating to the enforcement and*

monitoring of North Pacific groundfish and crab fisheries of the BS/AI and GOA. At a minimum, these agencies would include NOAA Fisheries Enforcement, NOAA Office of Sustainable Fisheries, U.S. Coast Guard, Alaska State Wildlife Troopers, Alaska Department of Fish and game, NOAA Fisheries Observer Program, and NOAA Office of General Counsel. The Committee will be Chaired by a member of the Committee, as elected biennially by the Committee. All appointments will be subject to approval by the Council and should reflect the Committee's responsibility to provide advice in the areas of enforcement and monitoring. Staff for each meeting will be designated by the NPFMC Executive Director as appropriate, depending on availability and issues on the agenda.

Organization. The Committee will be directed by the Chairperson, and may divide some of its responsibilities among work groups organized according to subject matter.

- a) **Rules of order.** In general, rules of order will be informal. Committee advice will be reached by consensus, whenever possible. Committee minutes will reflect the range of perspectives of all members.
- b) **Meetings.** Committee meetings will be held on a regular basis, typically in conjunction with regular Council meetings. Notice of these meetings would be accomplished through the Council agenda notice process. Additional meetings during the week of the Council meeting will be held as necessary, and announced at the Council meeting. Meetings will be open to the public, but public testimony will **not** be taken. Note that the public has the opportunity to provide comments to the Council during public testimony.
- c) **Development of Agenda.** A draft agenda will be prepared in advance of each meeting by the Council staff in consultation with the respective Chairperson and Executive Director. The Committee would be assigned issues for consideration on its agenda by (1) identification of future agenda items at the current Committee meeting, subject to approval by the Council; (2) identification and assignment of issues by the Council as identified during the course of a Council meeting; (3) identification of critical, time-sensitive issues between Committee/Council meetings from Council staff, agency staff, or Committee members and vetted through the Executive Director. In these instances, the Executive Director will confer with the Council Chair and Committee Chair as necessary, and determine whether the additional issue warrants inclusion on the agenda.
- d) **Meeting Record and Distribution.** A summary report of each meeting will be prepared by the Council staff, distributed to Committee members for review, and revised as necessary before the Committee report to the Council. The Committee Chair will maintain final approval of the minutes. The Committee report will be provided to the Council on an issue-by-issue basis, similar to the AP and SSC reports, as the relevant issue is addressed on the Council agenda.

Additional Function. While the primary function of the Committee is to provide advice directly to the Council on relevant issues, it is also recognized that the Committee, or its subgroups, may provide information directly to Council staff or other agency staff for inclusion in analytical documents ultimately destined for Council review. Such activities will be coordinated between the Committee Chair and Council Executive Director.

VOTE ON MOTION: Motion passed no objection June 14, 2016 at 12:58 p.m.

Electronic Monitoring

Mr. Tweit made the following motion and was seconded by Mr. Fields:

Council intends to incorporate EM technologies into the observer requirements for a restructured program for the GOA Trawl Fishery Management. In advance of the Council establishing a cooperative research program to facilitate EM implementation, the Council encourages industry to develop pilot projects for testing the feasibility of EM technology for monitoring directed harvest and bycatch in GOA trawl fisheries.

VOTE ON MOTION: Motion passed with one objection (Mr. Merrill) June 14, 2016 at 1:21 p.m.

THE COUNCIL ADJOURNED ON TUESDAY JUNE 14, 2016 AT 1:46 P.M.

TIME LOG
North Pacific Fishery Management Council
Meeting held in Kodiak, Alaska
Best Western Convention Center
June 8 – 14, 2016

Wednesday June 8, 2016

06/08/2016 08:05:20 AM Call to Order
06/08/2016 08:07:26 AM Maria Shawbeck ilegislate Presentation

B1 REPORTS

06/08/2016 08:15:01 AM **B1 Executive Director's Report** – Chris Oliver
06/08/2016 09:04:22 AM **B2 NMFS Management Report** – Glenn Merrill
06/08/2016 09:16:10 AM **B3 NOAA Enforcement Report** – Nathan Lagerwey & Will Ellis
06/08/2016 10:26:24 AM B2 Climate Science Strategy – Anne Hollowed
06/08/2016 11:02:31 AM **B4 ADF&G Report** – Trent Harthill
06/08/2016 11:08:31 AM **B5 USCG Report** – CAPT Phillip Thorne
06/08/2016 11:22:15 AM **B7 Protected Species Report** – Steve MacLean
06/08/2016 10:05:57 PM Break
06/08/2016 10:25:57 PM **B8 NPRB Report** - Denby Lloyd
06/08/2016 12:09:33 PM **B Public Testimony**
06/08/2016 12:09:43 PM Stephen Taufen
06/08/2016 12:14:39 PM Lunch

C1 OBSERVER PROGRAM

06/08/2016 01:20:20 PM C1 Presentation – Annual Report Chris Rilling & Craig Faunce
06/08/2016 02:24:45 PM Nathan Lagerwey Annual Report Continued
06/08/2016 02:58:09 PM Break
06/08/2016 03:23:01 PM **C1 OAC Report** – NPFMC Staff Diana Evans
06/08/2016 03:51:16 PM SSC Report – Farron Wallace
06/08/2016 03:59:19 PM AP Report – Matt Upton
06/08/2016 04:07:01 PM **C1 Public Testimony**
06/08/2016 04:07:20 PM Abigail Turner
06/08/2016 04:12:56 PM Stacey Hansen
06/08/2016 04:17:22 PM Michael Lake
06/08/2016 04:36:46 PM Natasha Hayden
06/08/2016 04:44:48 PM Adjourn

Thursday April 7, 2016

06/09/2016 08:05:51 AM	Call to Order
06/09/2016 08:06:51 AM	C1 Continued
06/09/2016 08:09:29 AM	C1 Mr. Tweit Motion
06/09/2016 08:22:43 AM	C1 Mr. Tweit 2nd Motion
06/09/2016 09:00:47 AM	C1 Mr. Fields Motion

C2 BSAI CRAB – PLAN TEAM REPORT, OFL/ABC FOR 3 STOCKS

06/09/2016 09:41:08 AM	NPFMC Staff Presentation – Diana Stram & Bob Foy
06/09/2016 10:27:27 AM	SSC Report – Farron Wallace
06/09/2016 10:30:51 AM	AP Report – Jeff Stephan
06/09/2016 10:34:23 AM	C2 Ms. Bush Motion
06/09/2016 10:38:22 AM	Break

NO PUBLIC TESTIMONY WAS TAKEN ON THIS AGENDA ITEM

C3 BSAI CRAB 10-YEAR REVIEW

06/09/2016 10:59:31 AM	NPFMC Staff Presentation - Sarah Marrinan & Brian Garber-Yonts
06/09/2016 12:05:44 PM	Lunch
06/09/2016 01:08:50 PM	C3 Presentation Continued
06/09/2016 03:00:09 PM	Social Impacts Presentation – Mike Downs and Stev Weidlich
06/09/2016 04:54:38 PM	Adjourn for the day

Friday June 10, 2016

06/10/2016 08:08:41 AM	Call to Order
06/10/2016 08:11:59 AM	C3 Public Testimony – Bill Orr (out of order)
06/10/2016 08:17:04 AM	Staff Reports – Devin Lucas from NIOSH
06/10/2016 08:45:15 AM	C3 Staff Conclusion - Sarah Marrinan and Brian Garber-Yonts
06/10/2016 09:00:08 AM	PINCIAC Report – Ruth Christiansen & Steve Minor
06/10/2016 09:08:07 AM	SSC Report – Farron Wallace
06/10/2016 09:46:31 AM	AP Report – Jeff Stephan
06/10/2016 09:49:24 AM	Break
06/10/2016 10:11:41 AM	C3 Public Testimony
06/10/2016 10:12:31 AM	Stephen Taufen
06/10/2016 10:21:13 AM	Alexus Kwachka
06/10/2016 10:26:12 AM	Shawn Dochtermann

06/10/2016 10:31:36 AM	Frank Kelty
06/10/2016 10:41:22 AM	Mateo Paz-Soldan & Simeon Swetzof
06/10/2016 10:57:59 AM	Larry Cotter
06/10/2016 11:13:55 AM	Joe Sullivan & Jake Jacobsen
06/10/2016 11:33:27 AM	Paul Grunholdt
06/10/2016 11:39:36 AM	John Iani
06/10/2016 11:52:25 AM	Tom Millerk
06/10/2016 12:00:50 PM	Lunch
06/10/2016 01:09:26 PM	C3 Mr. Cross Motion
06/10/2016 02:00:56 PM	C3 Mr. Cross 2nd Motion
06/10/2016 02:10:13 PM	C3 Mr. Fields Motion
06/10/2016 02:31:53 PM	Break
06/10/2016 02:45:35 PM	SSC – Entire Report

C4 TANNER CRAB CUSTOM PROCESSING

06/10/2016 03:18:17 PM	NPFMC Staff Presentation Jon McCracken, NMFS Keeley Kent
06/10/2016 03:55:57 PM	C4 Public Testimony
06/10/2016 03:55:57 PM	John Iani
06/10/2016 04:01:00 PM	Frank Kelty
06/10/2016 04:02:46 PM	Joe Sullivan & Jake Jacobson
06/10/2016 04:16:22 PM	C4 Mr. Merrill Motion
06/10/2016 04:30:57 PM	C4 Mr. Tweit Motion

Saturday June 11, 2016

C6 SQUID TO ECOSYSTEM COMPONENT CATEGORY

06/11/2016 08:05:57 AM	Call to Order
06/11/2016 08:10:20 AM	NPFMC Staff Presentation – Dr. Diana Stram & Jon McCracken
06/11/2016 09:36:48 AM	AP Report – Matt Upton
06/11/2016 09:37:49 AM	C6 Public Testimony
06/11/2016 09:38:36 AM	Brent Paine
06/11/2016 09:58:22 AM	Break
06/11/2016 10:12:09 AM	C6 Mr. Merrill Motion
06/11/2016 10:30:40 AM	Break

C5 GOA TRAWL BYCATCH MANAGEMENT

06/11/2016 11:03:27 AM	NPFMC Staff Presentation – Sam Cunningham & Darrell Brannan
06/11/2016 12:00:06 PM	Lunch
06/11/2016 01:05:44 PM	C5 Presentation Continued
06/11/2016 04:03:58 PM	McDowell Group Presentation - Garrett Evridge
06/11/2016 04:23:27 PM	Northern Economics Report - Doug Wiley and Mike Downs

06/11/2016 04:45:56 PM Adjourn for the Day

Sunday June 12, 2016

06/12/2016 09:11:49 AM	Call to Order
06/12/2016 09:14:24 AM	C5 Continued - Shannon Carroll & Natasha Hayden
06/12/2016 09:44:17 AM	AP Report – Jeff Stephan
06/12/2016 10:41:35 AM	Break
06/12/2016 10:54:05 AM	C5 Public Testimony
06/12/2016 10:58:35 AM	Samuell Eads
06/12/2016 11:07:10 AM	Glenn Reed
06/12/2016 11:24:52 AM	Sue Jeffrey
06/12/2016 11:33:49 AM	Joe Bundrant
06/12/2016 11:45:18 AM	Joe Plesha & Paul Lumsden
06/12/2016 11:57:24 AM	Lunch
06/12/2016 01:03:21 PM	Alexus Kwachka
06/12/2016 01:22:59 PM	John-Howard Jaskoski
06/12/2016 01:22:52 PM	Pat Branson & Rebecca Skinner
06/12/2016 01:48:50 PM	Tom Evich
06/12/2016 01:58:38 PM	Chandler Johnson
06/12/2016 02:03:16 PM	Ron Naughton
06/12/2016 02:09:01 PM	Dave Kubiak
06/12/2016 02:12:07 PM	Dan Miller
06/12/2016 02:16:04 PM	Joe Macinko
06/12/2016 02:23:00 PM	Danielle Ringer
06/12/2016 02:26:40 PM	Natasha Hayden
06/12/2016 02:32:34 PM	Curt Waters
06/12/2016 02:36:36 PM	Kori Allen
06/12/2016 02:39:12 PM	Robert Harrington
06/12/2016 02:48:48 PM	Tony Nelson
06/12/2016 02:50:44 PM	John Iabochello
06/12/2016 02:53:44 PM	Nathaniel Rose
06/12/2016 02:56:38 PM	KJ Herman (out of order)
06/12/2016 03:20:33 PM	Paddy O'Donnell
06/12/2016 03:43:32 PM	Heather Mann
06/12/2016 03:58:20 PM	Mike Okoniewski
06/12/2016 04:09:00 PM	Darren Platt
06/12/2016 04:14:59 PM	Lare Banaga, Fredelyn Basuel, Virginia Sevvida, Rey L, Sylvester
06/12/2016 04:24:25 PM	Jody Cook
06/12/2016 04:29:24 PM	Beth Stewart
06/12/2016 04:47:02 PM	Cliff Ivanoft (out of order)
06/12/2016 04:51:07 PM	Peter Thompson
06/12/2016 05:02:56 PM	Rolan Ruoss
06/12/2016 05:06:10 PM	Darius Kasperzak
06/12/2016 05:09:40 PM	Luke Lester
06/12/2016 05:20:49 PM	Samantha Weinstein

06/12/2016 05:25:47 PM Ben Ley & Derrick Ostrander (out of order)

Monday June 13, 2016

06/13/2016 08:07:52 AM	Call to Order
06/13/2016 08:08:10 AM	C5 Public Testimony Continued
06/13/2016 08:09:58 AM	Donna Parker (out of order)
06/13/2016 08:17:59 AM	Shannon Carroll
06/13/2016 08:31:14 AM	Frank Brown
06/13/2016 08:35:09 AM	Bert Ashley
06/13/2016 08:48:30 AM	Bob Bowhay
06/13/2016 08:52:06 AM	Matthew Moir
06/13/2016 09:03:57 AM	Bob Krueger
06/13/2016 09:29:00 AM	Byron Allison
06/13/2016 09:32:31 AM	Nora Agmata
06/13/2016 09:33:55 AM	Rina Mungyao
06/13/2016 09:37:17 AM	Don Ashley
06/13/2016 09:47:22 AM	Lloyd Johansen
06/13/2016 09:52:54 AM	Jose Sanchez
06/13/2016 09:56:21 AM	Break
06/13/2016 10:18:00 AM	DJ Vinberg
06/13/2016 10:32:12 AM	Sumi Forsman
06/13/2016 10:35:36 AM	Nancy Hillstrand
06/13/2016 10:41:02 AM	Paul Grunholdt
06/13/2016 10:45:33 AM	Matt Hegge
06/13/2016 10:52:28 AM	Brian Horn
06/13/2016 10:58:39 AM	Jason Chandler
06/13/2016 11:04:38 AM	Chuck McCallum
06/13/2016 11:21:38 AM	Julie Bonney
06/13/2016 11:46:17 AM	Angel Bravo
06/13/2016 11:48:09 AM	Stephen Taufen
06/13/2016 11:55:15 AM	Jeff Stephan
06/13/2016 12:02:01 PM	Shawn Dochtermann (out of order)
06/13/2016 12:06:40 PM	Conrad Martinez (out of order)
06/13/2016 12:08:10 PM	Lunch
06/13/2016 02:35:11 PM	C5 Mr. Cotten Motion
06/13/2016 04:18:39 PM	C5 Mr. Merrill Motion
06/13/2016 04:33:35 PM	C5 Mr. Fields Motion
06/13/2016 05:16:03 PM	C5 Mr. Cotten Motion - Alternative 3
06/13/2016 05:25:58 PM	Break
06/13/2016 05:31:50 PM	C5 Mr. Fields Motion #2
06/13/2016 06:25:05 PM	C5 Mr. Merrill Motion #2
06/13/2016 06:30:17 PM	Adjourn for Day

Tuesday June 14, 2016

D1 RESEARCH PRIORITIES

06/14/2016 09:43:55 AM	D1 NPFMC Staff Presentation – Jim Armstrong
06/14/2016 09:42:30 AM	NPRB Presentation - Denby Loyd
06/14/2016 10:18:16 AM	Break
06/14/2016 10:18:22 AM	D1 Mr. Tweit Motion#1
06/14/2016 10:21:34 AM	D1 Mr. Tweit Motion #2
06/14/2016 10:24:27 AM	D1 Mr. Tweit Motion #3

NO PUBLIC TESTIMONY WAS TAKEN ON THIS AGENDA ITEM

E1 STAFF TASKING

06/14/2016 10:31:09 AM	E1 NPFMC Staff – Chris Oliver
06/14/2016 10:40:42 AM	Enforcement Report – Roy Hyder
06/14/2016 10:50:57 AM	E1 Public Testimony
06/14/2016 10:51:13 AM	Beth Stewart
06/14/2016 11:01:00 AM	Joe Sullivan
06/14/2016 11:04:17 AM	Sinclair Wilt & Elizabeth Reed
06/14/2016 11:06:10 AM	Stephen Taufen
06/14/2016 11:08:57 AM	Matt Hegge
06/14/2016 11:23:19 AM	Jeff Stephan
06/14/2016 11:34:37 AM	Break
06/14/2016 12:49:57 PM	E1 Continued
06/14/2016 12:52:43 PM	E1 Mr. Cross Motion
06/14/2016 12:55:47 PM	E1 Mr. Hyder Motion
06/14/2016 01:08:47 PM	E1 Mr. Tweit Motion
06/14/2016 01:31:31 PM	Thank you to Duncan Fields
06/14/2016 01:46:31 PM	Meeting Adjourned

Dan Hull
Chairman
Chris Oliver
Executive Director

605 W 4th, Ste 306
Anchorage, AK 99501
(907) 271-2809
(907) 271-2817

www.npfmc.org



News & Notes

North Pacific Fishery Management Council

June 2016



Thank you Kodiak

Thank you to the many businesses and organizations that made the Council meeting a success in Kodiak. Active public participation in the meetings, events planned around the Council meeting week, and perfect summer weather was much appreciated by all who attended.

Fields, Long, and Thorne leave Council

Duncan Fields, of Kodiak, David Long of Wasilla, and Capt. Phil Thorne of the USCG were honored at a reception hosted by the Council, the City and Borough of Kodiak, and the Chamber of Commerce, thanking them for their commitment to Alaskan communities and to managing and conserving Alaskan fishery resources. Best of luck to them in their future endeavors.



Chairman Hull presents Duncan Fields with a plaque thanking him for his service in the Council process.

GOA Trawl Bycatch Management

For the second time in 2016, the Council received a discussion paper, as well as staff and stakeholder reports, that further define the action alternatives under consideration for a new cooperative management program structure for the GOA groundfish trawl fisheries. This effort is part of an iterative process through which the Council will arrive at a range of alternatives containing the elements of a program that results in equitable outcomes across sectors, maintains fishery participation in dependent communities, is practical to manage and enforce, and can be objectively analyzed. At this meeting, the Council defined an "overarching goal" for the program consisting of three central components: bycatch management, increased groundfish utilization, and maintaining opportunities to enter the fishery by — potentially — limiting any groundfish harvest privileges that might be allocated. This overarching goal was added to the 14 program goals and objectives that the Council had previously defined, and is not a replacement for any of those goals.

The Council has put forward two contrasting action alternatives that define allocations to participants. Alternative 2 allocates groundfish (target and secondary species) and prohibited species (halibut and Chinook salmon) to GOA trawl LLP licenses. Groundfish allocations would be based on groundfish catch history and PSC species would be allocated in proportion to groundfish allocations. Alternative 3 allocates only prohibited species, and only defines a cooperative structure for the inshore sector (CPs would be managed under sector-level PSC limits). PSC allocations are based on several factors that do not rely on, or do not rely heavily on, catch history. The Council clarified that its other action alternative (Alternative 4) could be selected in conjunction with Alternative 2, but could not be selected on its own or with Alternative 3. Alternative 4 would set aside a portion of allocated species

(groundfish and PSC) for use under a Community Fisheries Association (CFA) or an Adaptive Management program.

Motions were passed to amend each of the action alternatives in minor ways that clarify its intent regarding the proposed program elements. These amendments result in a lengthy final motion which is available on the Council's website, but they do not significantly alter the management approaches being considered. The amended version of Alternative 4 provides a more fully described vision of a CFA, which can now be analyzed with greater specificity. Many of the refinements to the defined CFA structure were drawn from a stakeholder proposal, which was developed in response to a specific Council request.

The Council received a great deal of public testimony on the merits of the action alternatives, and the overall objectives of the program. The Council passed a motion directing staff to move beyond examining the structure of the alternatives and the consistency of the proposed mechanisms with the Council's intent, and to begin analyzing the relative impacts of the alternatives on the identified stakeholder groups. At staff tasking, the Council stated its intent to review the preliminary analysis that will be available at its December 2016 meeting. That paper will focus on impacts of the alternatives, but will not be a draft EIS. That analysis and public input before and during the December Council meeting is hoped to help the Council solidify the elements of all the alternatives so that a draft EIS can be developed.

During the summer, NMFS will publish a Federal Register Notice announcing a new public scoping opportunity on the Council's purpose and need statement, goals and objectives for the program, and the alternatives. NMFS will produce a scoping report to summarize the public comments at an upcoming Council meeting. Staff contact is Sam Cunningham.

Staff Tasking

In addition to discussing the relative priority of previously tasked projects, the Council initiated a new project and clarified direction and tasking for its various committees. The Council also took the following actions:

- Approved new members for the Plan Teams and SSC.
- Directed staff to submit comment letters on the draft guidance for review of catch share programs, and the national implementation plan for ecosystem-based fisheries management.
- Approved Terms of Reference for the Enforcement Committee and tasked staff to pull together information on two enforcement issues (co-mingling of halibut and donation to foodbanks) for review at a future meeting.
- Passed a Council statement that supports development of electronic monitoring for GOA trawl fisheries, and encourages the industry to develop pilot projects and cooperative research needed to build a foundation for development of EM in these fisheries.

Upcoming meetings

BS/RE Spatial Management:
July 21, 1-5:30 pm (AFSC Seattle)

EMWG: July 26-28, (Coast Hotel, Anchorage), August 25 (teleconf)

BSAI Abundance-based Halibut PSC workshop:
September 12 (AFSC Seattle)

BSAI and GOA Groundfish Plan Teams:
September 13-16 (AFSC Seattle)

Observer Advisory Committee:
September 19-20 (TBD Seattle)

Crab Plan Team:
September 19-23 (AFSC Seattle)

Observer Issues

Annual Report

The Council reviewed the 2015 Annual Report for the North Pacific Observer Program, and made recommendations for the 2017 Annual Deployment Plan, which will be developed over the summer. The Annual Report provides a scientific evaluation of the deployment of observers in 2015, to assess whether the objectives of the Observer Program have been met. The report also includes descriptive information on the program, including enforcement trends and outreach efforts, and agency recommendations. In general, the Council supports continuing with observer deployment similar to the 2016 Annual Deployment Plan (ADP), which deployed observers by gear strata (pot, longline, and trawl), with different selection rates for each gear type. For 2017, however, the Council has recommended that the agency consider two new strata as well: vessels delivering their catch to tender vessels, and small catcher processors that are subject to partial coverage. An evaluation of the ramifications of deploying into these additional strata will be included in the draft 2017 ADP, for Council review in October. The Council also commended the agency on the Annual Report, noting that it gets better every year, and identified minor enhancements for the future. The Council also acknowledged the SSC and Observer Advisory Committee (OAC) comments about the agency's encouraging work with preliminary methods for estimating variance associated with observer data, and looks forward to further developments.

The Council continues to be concerned about the timeliness of receiving the observer fees from the Office of Management and Budget, which are essential to uninterrupted observer deployment in the partial coverage category. While this is not the first time the Council has highlighted this issue, the Council authorized sending another letter to express concern. The Council also heard that NMFS headquarters is positioning itself to stop providing financial support for at-sea observer days, and will write a letter to NMFS outlining how the supplemental NMFS funding has strengthened the partial coverage program in the last four years, and what could be achieved should this supplement continue to be forthcoming.

Regulatory Amendments

The Council reviewed the prioritized list of analytical projects related to the Observer Program, and agreed with OAC recommendations about relative priorities. In response to public testimony, the Council requested that NMFS postpone action on a

recent application from AIS, Inc. (the partial coverage observer provider) to be a full coverage observer provider until October; after the observer fixed gear lead level 2 availability discussion paper is prepared. The Council additionally asked that the paper, which includes an option encouraging AIS to become a full coverage provider as a means to addressing the potential shortage of qualified lead level 2 observers, evaluate whether there are unfair competitive advantage issues to consider with respect to having an observer provider participating in both the partial and full coverage programs.

Electronic Monitoring

While the Council did not receive a direct presentation on electronic monitoring (EM) at this meeting, the SSC reviewed some components of the upcoming analysis to integrate EM into the Observer Program, currently scheduled for initial review in October, and provided feedback to analysts. In response to public testimony, the Council also provided a letter of support for a National Fisheries and Wildlife Foundation grant proposal, which requests funding to support pre-implementation of EM for pot vessels in 2017, and aligns with the Council's previously-discussed intentions for EM work in 2017.

The Council also provided an intent statement that electronic monitoring technologies would be incorporated into the observer requirements for the GOA trawl bycatch management program as it moves forward. It was noted that while the Council's immediate priority and staff time is focused on the fixed gear fisheries, it may be productive for industry to begin to develop pilot projects for monitoring GOA trawl fisheries, and the Council would support that pilot work in advance of the Council establishing a trawl Cooperative Research Program. Staff contact is Diana Evans.

Appointments

The Council made several appointments this meeting. **Matt Kopec** of Whitter Marine Charters has been appointed to the Charter Implementation Committee. **Ben Williams**, of ADF&G in Juneau, and **Dr. Patrick Lynch** of NOAA Fisheries in Silver Spring, MD, were appointed to the GOA Groundfish Plan Team. **Dr. Alan Hicks** of the IPHC has been appointed to the BSAI Groundfish Plan Team to replace Dr. Ian Stewart, who is currently serving on the SSC. **Dr. Lew Coggins** has been appointed to the SSC, filling a long-vacant USFWS seat. Coggins has been serving recently as an alternate for Dr. Terry Quinn.

Tanner Crab Custom Processing Exemption

The Council took final action to exempt custom processing arrangements for Bering Sea Tanner crab from processing quota use caps. The Council also initiated a discussion paper to review additional solutions to the Tanner crab custom processing use cap issue, including: (1) raise the Tanner crab IPQ use cap to 40%; (2) A share to B share conversion, and (3) apply exemption only in years when capacity to process is not sufficient (i.e., when there are less than four processors).

The Council's preferred alternative is directly responsive to the situation in the Tanner crab fishery that occurred during the 2014/2015 crab season that has resulted in an inability for harvesters to fully harvest the Tanner crab resource, and for IPQ holders to fully receive and process Tanner crab at crab processing facilities currently operating. The Council's preferred alternative complements and follows the management approach the Council recommended and NMFS implemented under an emergency rule that was effective for the 2015/2016 crab fishing year. Staff contact is Jon McCracken.

Stock Structure & Spatial Management

The Council will be hosting a public workshop to discuss stock structure and spatial management with a specific focus on identifying additional tools to manage the BSAI Blackspotted/Rougheye rockfish complex. The workshop will be held at the Alaska Fisheries Science Center on July 21. An agenda and webex information for the meeting will be available on the Council's website in early July. Staff contact is Diana Stram.

Save the Date

The Council is scheduling a celebration and banquet **DECEMBER 8** to celebrate the 40th anniversary of the MSA and the Fishery Management Councils. Because of timing, the celebration will be in conjunction with the December Council meeting also starting December 8. The SSC will begin December 6, a **TUESDAY**, and the AP will start **WEDNESDAY**, December 7. Please note the schedule change.

Crab Management

The Council approved SSC OFL and ABC recommendations for 3 BSAI crab stocks and received recommendations from the SSC and the Crab Plan Team on model scenarios and other items taken up at their spring 2016 Crab Plan Team (CPT) meeting. OFLs and ABCs were established for the Pribilof Island Golden King Crab, Aleutian Island Golden King Crab and Western Aleutian Island Red King Crab stocks. The SSC and CPT also reviewed and made recommendations on model scenarios for snow crab, Bristol Bay Red King Crab, Saint Matthew Blue King Crab (in a new generalized modeling framework (GMACs)) and Tanner crab. Final specifications for the six remaining BSAI crab stocks will be made in the fall following incorporation of the summer survey data. The SAFE chapters for the three stocks assessed at this time, as well as the Crab Plan Team report, are available on the Council's website. Staff contact is Diana Stram.

Crab 10-Year Review

The Council approved the 10-year review of the BSAI crab rationalization program as final and complete with the incorporation of SSC suggestions. The review document and its associated appendices are intended to provide a broad, yet comprehensive understanding of the dynamics of the fisheries. The review process gives the Council and the public an opportunity to consider the program as a whole, as well as nuanced elements and impacts of the program.

Given the testimony of stakeholders, the Council initiated a discussion paper focused on the arbitration system. The discussion paper will analyze the changing operational costs of crab IFQ holders and the impacts of such cost changes on the crab harvesting and processing sectors, given an ex-vessel price that is rooted in the historical distribution of the first wholesale value. The discussion paper will review the criteria used by the non-binding price formula arbitrator to allow the Council to determine if operational cost changes to the participants in the crab fisheries should be considered in setting the non-binding price formula or under contract arbitration.

In addition, the Council made a motion to have the Council Chair, Executive Director, and Chairman of the SSC work together to develop a proposal to establish a Social Science Plan Team and to outline the scope of its work. Their proposal would be brought back to the Council for its review and consideration. Council staff is Sarah Marrinan.

Squid to Ecosystem Component

The Council reviewed an EA/RIR/IRFA to evaluate moving squid stocks in both the BSAI Groundfish FMP and the GOA Groundfish FMP into the Ecosystem Component category. Under current National Standard 1 Guidelines, if a species requires conservation and management, it is classified as being "in the fishery". If a species does not require conservation and management, it may be moved into the "ecosystem component" category. Following review and discussion of some issues in need of clarification in the alternatives and analysis, the Council moved to modify its problem statement and to restructure Alternative 2. These revisions are reflected in the Council motion on the website. The Council requested that the analysis be revised to analyze the new alternatives, potential changes in National Standard 1 Guidelines, and addresses SSC comments to the extent practicable with another initial review scheduled for February 2017. Staff contact is Diana Stram.

Enforcement Committee

During staff tasking, the Council tasked the Enforcement Committee to initiate a discussion paper to review regulations to ensure the proper disposition/accounting of halibut in guided, unguided, and subsistence fisheries. Possessing charter harvested and non-charter harvested halibut on the same vessel at the same time presents challenges for accountability that cannot be overcome with the current regulatory tools. This occurs on multi-day and "mothership" charter fishing, and to a lesser extent on vessels that are owned by self-guided fishing operations that also provide sport fishing guide services to their clients that request them.

The Council also tasked the Enforcement Committee to initiate a discussion paper to examine requirements for a regulatory amendment to allow donation of fish seized by law enforcement officers to local food banks or the SeaShare program to avoid wastage.

Finally, the Council approved two changes to the Enforcement Committee Term of Reference. The first change was to include safety at sea in the Establishment and Statement of Purpose for the committee. The second change allows the committee to be chaired by any member of the Enforcement Committee, as elected biennially by the committee, rather than a member of the Council, as appointed by the Council Chair. A copy of the revised Enforcement Committee Terms of Reference is available on the Council's website. Staff contact is Jon McCracken.

Research Priorities

At each June meeting, the Council, in conjunction with its Scientific and Statistical Committee, reviews research projects necessary to support near- and long-term management actions. The development of research priorities is a statutory obligation under the Magnuson Stevens Act, and the identified set of priorities applies to the upcoming five-year period; this year's review will apply to 2017-2021. Other contributions to the annual review include recommendations from the Council's Plan Teams, which are compiled at their meetings during the preceding year. At this June Council meeting, existing research priorities were reviewed and their ranking was updated, with the Council's anticipated management concerns for the upcoming five-year period. Additionally, the status of research was updated to reflect current progress on specific research topics. New research priorities suggested by the Plan Teams (9) and the SSC (6) were also reviewed and adopted by the Council. In adding these projects to the existing list, the Council now has a total of 143 active or pending research projects connected to management in the upcoming five-year period. In accordance with the Magnuson Stevens Act, these compiled priorities will be communicated to the Secretary of Commerce, as well as relevant funding agencies, the AFSC, and the NMFS Regional Office.

Beyond the compiling of needed research projects, the Council reviewed issues related to the web-based research priority database and instructed staff to explore potential improvements to its functionality. Finally, the Council recognized that improved coordination with lead funding agencies associated with Alaska fisheries research would greatly serve the utility of its annual review. In the coming months, Council staff will work with NPRB and AFSC staff to explore ways to integrate the organization and monitoring research activities within recognized research themes as a means to improve coordination and communication. Staff contact is Jim Armstrong.

The distribution of the Council's 143 active and pending research priorities in relation to the Council's four priority rankings and research theme.

Research Theme	Priority				Total
	Critical	Urgent	Important	Strategic	
Assessment Inputs		18	24	5	47
Ecosystem Assessments		1	10	4	15
At Sea Survey	7	4	3		14
Habitat		2	5	1	8
Protected Species		4	2	2	8
Halibut		4	3	1	8
Economic Analysis	1	2	1	3	7
PSC Management		6	3		9
Management		5		1	6
Communities		1	4		5
Climate Change			1	5	6
Steller Sea Lion		3	1		4
Fishery Interactions		2	1		3
Data Quality		1		2	3
Total	8	53	58	24	143

Call for Nominations

The Council is seeking nominations for an active observer to participate on the Observer Advisory Committee. The Committee generally meets twice a year, in May and September, and the next meeting is scheduled in Seattle for September 19-20. Please contact diana.evans@noaa.gov if you are interested. Nominations will be accepted until July 29. The Council is also seeking nominations for an Area 3A charter representative that does not hold Halibut Quota Share for membership of the Recreational Quota Entity Committee. This committee will provide ongoing input to the Council on the RQE program structure, with meetings twice a year. The next RQE meeting is scheduled for December 2016. Interested parties should contact steve.maclean@noaa.gov by July 29.

DRAFT NPFMC THREE-MEETING OUTLOOK - updated 6/20/2016

October 3-11, 2016 Anchorage, AK	December 6-14, 2016 [SSC starts Tues, AP on Wed, Council on Th] Anchorage, AK	January 28-Feb 7, 2017 Seattle, WA
Stock Assessment 101 Training	40 Year Anniversary Celebration Banquet - Thursday, Dec. 8	Observer discharge location: Discussion paper
EM Integration: Initial Review	GOA Trawl Bycatch Management: Preliminary Analysis	EM Integration: Final Action (T)
Observer Program 2017 Annual Deployment Plan: Review; OAC rpt Observer Lead Level 2: Discussion paper	2017 Charter halibut management measures: Final action	BSAI YFS TLA Fishery limited entry: Initial Review
Area 4 Halibut IFQ Leasing: Initial Review	Charter Halibut permit leasing: Discussion paper	GOA Gear Specific Skate MRAs: Discussion paper
Halibut/sablefish IFQ Program 10-year Review: Review Draft	Charter Halibut RQE Program: Final Action	BSAI Crab Specs for NSRKC: Final OFL/ABC specifications BSAI Crab Modeling Report (SSC only)
BSAI Crab: Plan team report, OFL/ABC for 6 stocks	Deck Sorting EFP: Report on preliminary results	Remove WAI Red King Crab from FMP: Initial Review
AFA 10-year Review: Review Draft (T)	Groundfish Harvest Specifications: Final specifications	Bristol Bay red king crab PSC: Discussion paper
BSAI Halibut Abundance-based PSC: Discussion paper		Squid to Ecosystem Component Category: Initial Review
Halibut DMRs methodology: Discussion paper		
Stock Structure Report	EFH Effects of Fishing Criteria: Discussion paper (T)	
Groundfish Harvest Specifications: Proposed specs	BSAI Salmon genetics spatial/temporal distribution: Disc paper (T)	
EFH Descriptions: Review updated report; Identify EFH EFH non-fishing effects report: Review and approve		ITEMS BELOW NOT YET SCHEDULED Crab binding arbitration formula: Discussion paper Observer deployment trip determination and transfer: Disc paper EFH Effects of Fishing: Review Report (April -T) Bering Sea FEP: Review Draft FEP BSAI Tanner crab custom processing cap: Discussion paper Bering Sea Snow Crab PSC Limits: Initial Review Observer Insurance Requirements: <i>Disc paper for Reg Am</i>

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
EM - Electronic monitoring
EFH - Essential Fish Habitat
EFP - Exempted Fishing Permit
EIS - Environmental Impact Statement
FEP - Fishery Ecosystem Plan
FLL - Freezer longliners
GOA - Gulf of Alaska
GKC - Golden King Crab
GHL - Guideline Harvest Level

HAPC - Habitat Areas of Particular Concern
IFQ - Individual Fishing Quota
ICA - Inter-cooperative Agreements
IPA - Incentive Program Agreements
LLP - Limited License Plan
MRA - Maximum Retainable Allowance
PSC - Prohibited Species Catch
RKC - Red King Crab
RQE - Recreational Quota Entity
SIR - Supplemental Information Report
SSC - Scientific and Statistical Committee
SAFE - Stock Assessment and Fishery Evaluation
SSL - Steller Sea Lion
TAC - Total Allowable Catch
TLAS - Trawl Limited Access Sector
YFS - Yellowfin sole
VMS - Vessel Monitoring System

Future Meeting Dates and Locations

October 3 - 11, 2016 Anchorage
December 6-14, 2016, Anchorage
January 28 – February 7, 2017, Seattle
April 3-11, 2017, Anchorage
June 5-13, 2017, Juneau
October 2-10, 2017, Anchorage
December 4-12, 2017, Anchorage

(T) = Tentative

Research ID	Title	Description	Council Priority	Research Status
144	District-wide survey for demersal shelf rockfish in Southeast Alaska	Conduct a district-wide survey for demersal shelf rockfish in Southeast Alaska on a biennial or triennial basis. Survey information is becoming extremely dated.	Critical Ongoing Monitoring	No action
145	Continuation of State and Federal annual and biennial surveys	Continuation of State and Federal annual and biennial surveys in the GOA, AI, and EBS, including 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 federal budgets in which funding may not be sufficient to conduct these surveys. Loss of funding for days at sea for NOAA ships jeopardizes these programs. Budgetary concerns have resulted in cuts to not only days at sea, which increases uncertainty, but also sampling the deepest strata, which threatens the value of trawl surveys as a synoptic ecological survey. 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. Although an ongoing need, these surveys are considered the highest priority research activity, contributing to assessment of commercial groundfish and crab fisheries off Alaska.	Critical Ongoing Monitoring	Underway
150	Maintain the core biological and oceanographic data (e.g., biophysical moorings, stomach data, zooplankton, age 0 surveys) necessary to support integrated ecosystem assessment	Maintain the core data and process studies needed to support integrated ecosystem assessments. Core data include inputs for single- or multi-species management strategy evaluations, food web, and coupled biophysical end-to-end ecosystem models (e.g. biophysical moorings, stomach data, zooplankton, age 0 surveys (i.e. BASIS surveys)). Develop and maintain indices of sea ice formation, sea ice retreat, and timing/extent of the spring bloom for the EBS. For this, maintenance of moorings, especially M-2, is essential. If recent changes in ice cover and temperatures in the Bering Sea persist, these may have profound effects on marine communities.	Critical Ongoing Monitoring	Underway
186	Collect and maintain zooplankton and meroplankton biomass and community composition time series	Collect and maintain zooplankton and meroplankton biomass and community composition time series in the eastern Bering Sea. Develop, collect and maintain time series of zooplankton biomass and community composition for the GOA, AI, Arctic.	Critical Ongoing Monitoring	Partially underway
190	Collect and maintain time series of ocean pH	Collect and maintain time series of ocean pH in the major water masses off Alaska to improve understanding of ocean acidification and its effects on managed species, upper level predators and lower trophic levels	Critical Ongoing Monitoring	Underway
218	Survey capability for forage fish	Develop a long-term survey capability for forage fish (partially underway). The NPRB funded GOA and Bering Sea projects are currently describing the spatial and temporal variability in the structure of forage fish communities and the effect of this variability on predators. This work should be continued and methods for long-term monitoring should be developed.	Critical Ongoing Monitoring	Partially underway
226	Continue to evaluate the economic effects from fishery policy changes on coastal communities.	Continue to evaluate the economic effects from fishery policy changes on coastal communities. This includes understanding economic impacts (both direct and indirect) and how the impacts are distributed among communities and economic sectors.	Critical Ongoing Monitoring	Partially underway
552	Expand statewide scallop survey	The State of Alaska fishery independent dredge survey has been conducted in a limited number of known beds. Expansion of the survey beyond the edges of known beds into previously un-surveyed areas will improve knowledge of bed size and true scallop distribution..	Critical Ongoing Monitoring	Underway

Research ID	Title	Description	Council Priority	Research Status
146	Improve surveys in untrawlable habitat, particularly for rockfish, Atka mackerel, and sculpins	For groundfish in general, and rockfish and Atka mackerel 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 are semi-pelagic species such as northern and dusky rockfish. A number of publications specific to untrawlable grounds and rockfish sampling have been published recently, but have not been incorporated directly into routine stock assessment routine survey designs.	Urgent	Partially underway
148	Spatial distribution and movement of crabs relative to life history events and fishing	There is a need to characterize the spatial distribution of male snow crab at time of mating relative to reproductive output of females in the middle domain of the EBS shelf. Additionally there is a need to investigate spatial stock dynamics and population connectivity for Tanner Crab (2 stocks).	Urgent	Partially underway
154	Pacific cod stock assessment for the Aleutian Islands	Develop an age-structured Pacific cod stock assessment for the Aleutian Islands region. In 2014 the Aleutian Islands and eastern Bering Sea regions were split and have separate ABCs and OFLs. There is need to develop an assessment model for cod in the Aleutians.	Urgent	Underway
155	Evaluation of salmon PSC mitigation measures	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, timing of runs and openings relative to subsistence requirements, and access to cost data for the commercial pollock and salmon industries so that impacts on profits (not gross revenues) can be calculated.	Urgent	Underway
156	Improve knowledge for salmon PSC impact assessment	Improve the resolution of Chinook and chum salmon genetic stock identification methods (e.g., baseline development, marker development), improve 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. Baseline development is nearing completion, but more work on Cook Inlet chum is needed.	Urgent	Underway
157	Improve methods of monitoring fishery interactions	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.	Urgent	Underway
159	Evaluate interactions between fisheries and pinnipeds	Studies of the interactions between fisheries and protected species, such as Steller sea lions in the Central and Western Aleutian Islands (areas 541, 542, 543), and northern fur seals on the eastern Bering Sea shelf are needed. These studies should be conducted at appropriate spatial and temporal scales with an emphasis on seasonal prey fields, diet, and movement of fisheries and pinnipeds.	Urgent	Underway
160	Assess vital rates of Steller sea lions	Assess vital rates (i.e., reproduction and survival) of Steller sea lions in the western DPS (including Russia) at sufficient frequency to track population dynamics.	Urgent	Underway
161	Assess the health of Stellar sea lions	Assess possible indirect effects of fisheries removals via periodic health assessments, indices of body condition, survival of pups and juveniles, and natality of Steller sea lions in the western DPS.	Urgent	Underway
162	Quantify killer whale predation of Steller sea lions (M)	Quantify killer whale predation of Steller sea lions, particularly in the western and central Aleutian Islands.	Urgent	Underway

Research ID	Title	Description	Council Priority	Research Status
163	Conduct routine fish, crab, and oceanographic surveys in the northern Bering Sea and Arctic Ocean	Dynamic ecosystem and environmental changes in the northern Bering Sea and Arctic are occurring. Assessment of the current baseline conditions and trophic interactions is important. This effort should not supplant the regular surveys in the BSAI and GOA, which are of critical importance to science and management.	Urgent	Partially underway
165	Conduct routine surveys of subsistence in the northern Bering Sea and Arctic Ocean	Conduct routine surveys of subsistence use of marine resources in 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 may occur. If range expansions or shifts occur, data will be needed to adjust standard survey time series for availability.	Urgent	Partially underway
166	Estimate scallop stock abundance	Estimate scallop stock abundance in unsurveyed areas using fishery independent methods including analysis of current camera sled data.	Urgent	Partially underway
167	Alternative approaches to acquire fishery-independent abundance data for for unsurveyed stocks of golden king crab	Explore alternative approaches to the triennial ADF&G Aleutian Islands golden king crab pot survey to acquire fishery-independent abundance data on stock distribution and recruitment of Aleutian Islands golden king crab, including the potential for future cooperative research efforts with Industry.	Urgent	Underway
170	Quantitative reproductive index for the surveyed BSAI crab stocks	Advance research towards developing a quantitative reproductive index for BSAI crab stocks. 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.	Urgent	Underway
171	Acquire basic life history information (e.g., natural mortality, growth, size at maturity) for data-poor stocks	Basic life history information is needed for stock assessment and management of data-poor stocks, such as scallops, sharks, skates, sculpins, octopus, grenadiers, squid, and blue king crab (Bering Sea), golden king crabs (Aleutian Islands), and red king crab (Norton Sound). Specifically, information is needed on natural mortality, growth rates, size at maturity, and other basic indicators of stock production/productivity.	Urgent	Partially underway
172	Develop and validate aging methods for crabs.	Develop and validate aging methods for crabs to improve estimates of M for stock assessments.	Urgent	Underway
173	Expand studies to identify stock and management boundaries	To identify and refine stock boundaries and understand source/sink dynamics (e.g., scallop metapopulations). Conduct studies to evaluate all crab stock boundaries relative to management boundaries (e.g. Bristol Bay red king crab, Adak red king crab, Pribilof blue king crab). Expanded studies are needed in the areas of genetics, mark-recapture, reproductive biology, larval distribution, and advection. Such boundaries are to be evaluated so that the risks and consequences of management actions are clear.	Urgent	Underway
174	Develop spatially explicit stock assessment models	Develop spatially explicit stock assessment models. High priority species for spatially explicit models include: walleye pollock, snow and Tanner crab, Pacific cod, sablefish, yellowfin sole, rock sole, arrowtooth flounder, Pacific ocean perch, black spotted rockfish, rougheye rockfish, and Atka mackerel.	Urgent	No action
176	Refine methods to incorporate uncertainty into harvest strategies for groundfish	Refine P* and decision theoretic methods to incorporate uncertainty into harvest strategies for groundfish for ACL estimation. Continue existing management strategy evaluations at the stock level.	Urgent	Underway
178	Develop a framework for collection of economic information	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.	Urgent	Partially underway

Research ID	Title	Description	Council Priority	Research Status
179	Conduct pre- and post-implementation studies of the benefits and costs, and their distribution, associated with dedicated access privileges	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.	Urgent	Partially underway
197	Develop methodologies to monitor for new/emerging diseases and/or parasites among exploited species and higher trophic levels	Develop methodologies to monitor for new/emerging diseases and/or parasites among exploited species and higher trophic levels.	Urgent	No action
202	Methods for reliable estimation of total removals	Develop methods for reliable estimation of total removals (e.g., surveys, poorly observed fisheries) to meet requirements of total removals under ACLs. Catch Accounting System now provides total removals annually. Improved reporting on some data such as subsistence catches and Pacific cod bait in crab fisheries is needed. Improvements are needed for catch accounting by sex and size for crab in non-directed fisheries with high bycatch or PSC rates, particularly for blue king crab in the Pacific cod pot fishery in the Pribilof Islands.	Urgent	Underway
203	Improve discard mortality rate estimates for scallops	Field and laboratory studies are needed to estimate Alaskan scallop discard mortality by evaluating relationship between capture, release condition and deck time, and subsequent survival.	Urgent	Partially underway
207	Analyses of fishery effort and observer data for scallops	As fishery independent surveys are conducted on only a few beds in Central Region, it is important to confirm the validity of fishery-dependent CPUE as an index of local abundance. Concerns about the utility of CPUE as an abundance index for fishery management are compounded by the limited number of vessels in the current fishery. Emerging methods from other data-limited stock assessments should be explored as alternatives to CPUE as indices of stock status.	Urgent	No action
208	Research on stock- recruit relationships	New information and data are needed that would inform our understanding of the stock-recruit relationship for groundfish, Pacific halibut, and crab to project year-class strength.	Urgent	Underway
211	Benefits and costs of directed halibut catch and halibut PSC utilization	Research the benefits and costs of directed halibut catch and halibut PSC utilization in different fishing sectors. For halibut and other PSC and bycatch species, conduct research to better identify where regulations restrict the utilization of fish from its most beneficial use and evaluate how changes in existing regulations would affect different sectors and fisheries	Urgent	Underway
213	Assess the impact of the displacement of the groundfish fleet on Northern fur seals	Assess the impact of the displacement of the groundfish fleet due to Steller sea lion protection measures on the prey availability, foraging ecology, diet, movements, and vital rates for Northern fur seals.	Urgent	Partially underway
217	Impact of fisheries on benthic habitat and trophic interactions	Conduct studies to assess the impact of bottom trawl fisheries on invertebrate abundance and species composition in benthic habitats. This is especially relevant to the foraging ecology of walrus (candidate species for listing under ESA), but also bearded seals, and gray whales.	Urgent	Underway
227	Improve estimation of fishery interactions with non-target groundfish, and prohibited species.	Improve estimation of fishery interactions (including catch) and non-target groundfish (e.g., sharks, skates), and prohibited species.	Urgent	Underway
229	Evaluate the effectiveness of setting ABC and OFL levels for data-poor crab stocks	Evaluate the effectiveness (e.g., potential for overharvest or unnecessarily limiting other fisheries) of setting ABC and OFL levels for data-poor stocks (Tiers 4 and 5 for crab).	Urgent	Partially underway

Research ID	Title	Description	Council Priority	Research Status
232	Develop management strategy evaluations that incorporate changing climate and market economic conditions.	Develop management strategy evaluations under differing assumptions regarding climate and economic conditions. Promote the standardization of future scenarios from different models to promote comparability of model outputs.	Urgent	Underway
235	Investigate gear modifications and changes in fishing practices to reduce bycatch and PSC	Gear modifications and changes in fishing practices to reduce bycatch and PSC are needed.	Urgent	Partially underway
239	Assess the extent of the distribution of corals	Assess the extent of the spatial distribution of corals and conduct routine monitoring of these areas.	Urgent	Partially underway
249	Assess the movement of Steller sea lions and northern fur seals	Assess the movement of Steller sea lions and northern fur seals in response to environmental variability to understand the spatial changes of predator-prey interactions.	Urgent	Partially underway
364	Updated sperm whale stock assessment	Updated sperm whale abundance estimates are needed. Sperm whale depredation interactions with longline fisheries have increased, but little is known about sperm whale populations. Updated population estimates and defined PBR's are needed to effectively respond if a take occurs in the longline fishery.	Urgent	No action
365	Retrospective analysis of the impact of Chinook PSC avoidance measures on communities of western Alaska	Conduct retrospective analysis using qualitative and quantitative methods on salmon dependent communities of western Alaska that may be affected by Chinook salmon PSC avoidance measures in the BSAI. Analysis should evaluate long-term changes in local Chinook abundance and uses, and provide detailed ethnographic work exploring the meaning of salmon to these communities in the context of industrialized offshore fisheries.	Urgent	No action
366	Continue to investigate time variation and the shape of fishery and survey selectivity models	There is considerable controversy about (1) whether selectivity should be dome-shaped or asymptotic, and (2) whether selectivity should be time-varying by default. Using a dome-shaped curve can create a large increase in biomass which may not be real. Treating selectivity as time-varying increases the number of model parameters greatly, which may lead to confounding among parameters. Better scientific guidance through research studies is needed to address these two problems.	Urgent	Underway
367	Continue to improve stock assessment methodology with respect to uncertainty	Recent studies have made advances in determining effective sample size, effective number of parameters, Bayesian parameterizations, and how to weight datasets in assessments with multiple datasets. However, results appear to vary from paper to paper, and no general rules have emerged. Thus, our ability to characterize uncertainty remains elusive.	Urgent	Underway
368	Develop a simulation model of Steller sea lion fishery interactions	Management strategy evaluation tools based on coupled bio-physical models with fishing and top trophic level foragers (e.g., Steller sea lions) should be developed to evaluate the performance of different harvest strategies, to inform future management decisions, and to prioritize field studies.	Urgent	No action
381	Effects of changes to the observer program	Evaluate the effects of changes to data collection protocols that occur because of observer restructuring. Ensure that data can be compared easily to the previous data collection methods and time series remain intact. MERGE with 381???	Urgent	No action
385	Study Pacific halibut PSC, bycatch, and discard behavior in fisheries	Continue to explore management actions that reduce the incentives for PSC-, bycatch- and discard-related mortality of Pacific halibut. Evaluation of observer coverage, accuracy, and representativeness of PSC and bycatch estimates should be included.	Urgent	Underway

Research ID	Title	Description	Council Priority	Research Status
388	Study temporal and spatial patterns in size-at-age of Pacific halibut	Reanalyze historical records of Pacific halibut size-at-age. Requires identifying samples from consistent spatial areas as well as re-ageing of older samples that utilized differing methods for age determination. Relate observed patterns to somatic growth via otolith increment analysis and development of bioenergetics model relating long-term environmental and ecological drivers to halibut size-at-age. Continue to explore the potential role of fishing in observed size-at-age trends via direct or evolutionary pathways and the interaction with size-selective fishing, include these analyses in harvest policy analyses.	Urgent	Underway
491	Assess dependence and impacts of halibut management actions on communities	Quantitatively and qualitatively examine the suite of engagements, dependencies, and vulnerabilities of halibut dependent communities and impacts of halibut management actions.	Urgent	Pending
492	Investigate factors underlying fishery responses to halibut PSC caps	There is need to understand the underlying factors through which industry can adjust its behavior and its corresponding halibut encounter rates, in response to potential changes in halibut PSC caps. Investigations under this category could be conducted in combination with evaluations of alternative management actions for halibut PSC under Research Priority 385.	Urgent	Pending
493	Examine the relative importance of historical closed areas in the vicinity of the Pribilof Islands as juvenile halibut nursery habitat relative to other regions coast-wide.	Evaluate the biological effects of establishing spatial protections of juvenile halibut from fishing gear on BSAI halibut stock health.	Urgent	Pending
531	Collect growth data for Bering Sea crab stocks	Pending feedback from PT	Urgent	Partially underway
533	Explore geospatial approaches for time series of survey data	Develop criteria necessary for using Thorson's geostatistical model as an alternative to the designed-based estimates for abundance indices used in stock assessments. Assess whether there are certain life history characteristics or levels of aggregation where this model should be used.	Urgent	Partially underway
534	Develop technical interaction model for BSAI MSE	A multi-species management strategy evaluation (MSE) with technical interactions among species is being developed to explore the potential implications of alternative harvest policies as was done for the Programmatic Supplemental Environmental Impact Statement (PSEIS). The approach of using an MSE with technical interactions is useful and unique in that the whole cycle of a fishery system is modeled: "true" status of several fish stocks in the fishery (Pacific cod, pollock, yellowfin sole, and Pacific halibut) are simulated; data are generated based on the "true" status of each stock, stock assessments are performed using the generated data; catch limits and bycatch limits are calculated, and the management system and fleet dynamics are mimicked to simulate the decision-making process that occurs when allocating catch limits among stocks within the constraint of the 2 million ton cap.	Urgent	Underway
535	Development and evaluation of data poor and data moderate methods	Several methods are currently in use around the country for setting harvest specifications for data-poor and data-moderate stocks (corresponding, respectively, to Tiers 6 and 4-5 of the BSAI and GOA groundfish harvest control rules), several others are currently under development, and still others could be developed in the future. There is a need to continue development of such methods and to conduct comparative performance tests of the methods.	Urgent	Underway
551	Estimate scallop survey catchability	Catchability of scallops in the fishery independent survey is needed to generate abundance estimates of scallops. Currently the survey provides only CPUE data.	Urgent	No action
511	Computerized image analysis of current camera sled data	Assessment of existing database of camsled images is needed to provide scallop counts and sizes, contributing to abundance estimates. Additionally, sediment and habitat type and presence of other organisms can be assessed.	Urgent	Underway

Research ID	Title	Description	Council Priority	Research Status
147	Life history research on data poor or non-recovering crab stocks	Why certain stocks have declined and failed to recover as anticipated is a pressing issue (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.	Important (Near Term)	No action
149	Improve handling mortality rate estimates for crab	Improve estimate of discarded crab handling mortality rate. These studies should include an assessment of the long-term mortality due to injury. This will require improving understanding of 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. The magnitude of post-release mortality is an essential parameter in the determination of the overfishing level used to evaluate overfishing in stock assessment and projection modeling. Empirical data exist for snow crab so new handling mortality data are needed for Tanner and king crab by size, sex, and fishery type with consideration of temperature. Methodology needed for king crab.	Important (Near Term)	Partially underway
151	Develop a spatially-explicit model for BSAI pollock	Conduct studies to determine stock structure and potential spatial management for BSAI pollock (e.g., movement). Evaluate interactions of BSAI pollock with those in Russian waters. These studies should lead to a detailed spatial age-structured stock assessment model with at least 3 regions (Russia, NW EBS, SE EBS).	Important (Near Term)	Underway
153	Study vertical distribution of Pacific cod to better understand catchability	Research is needed on the vertical distribution of Pacific cod relative to the EBS bottom trawl and comparisons of gear between the EBS and GOA trawl gear. This is because there is controversy about fishery and survey catchability.	Important (Near Term)	Underway
158	Research ecosystem indicators and their thresholds for inclusion in ecosystem-level management strategy evaluation.	Initiate/continue research on the synthesis of ecosystem indicators, developing and evaluating thresholds for ecosystem indicators, and ecosystem-level management strategy evaluation.	Important (Near Term)	Partially underway
164	Effects of trawling on female red king crab and subsequent recruitment	Research is needed on the effects of trawling on the distribution of breeding and ovigerous female red king crab and subsequent recruitment. Relevant studies include effects of potential habitat modifications on the distribution of females, particularly in nearshore areas of southwest Bristol Bay (partially underway), and environmental effects (e.g., trawling overlap in warm vs. cold years). Retrospective studies, the use of pop-up tags to identify larval release locations, and larval advection using Regional Ocean Modeling System would help address this need.	Important (Near Term)	Underway
169	Studies on factors that affect catchability particularly for King and Tanner crab	For groundfish and crabs, studies are needed on factors that affect catchability, as they directly bear on estimates of the stock assessment. 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 and Red King Crab because of recent trends in stock status, and on fishery and for Aleutian Island golden king crab to improve the stock assessment model.	Important (Near Term)	Underway
180	Economic, social, and cultural valuation research on protected species	Economic, social, and cultural valuation research on protected species is needed (i.e., non-market consumptive use, passive use, non-consumptive use).	Important (Near Term)	Underway
182	Evaluate current and alternative Council PSC/bycatch reduction initiatives	Analyze the effects of recent Council actions on PSC and bycatch, including the interaction among PSC and bycatch reduction initiatives (e.g., halibut, salmon, crab). Attention should be given to different incentives that have the potential to cost-effectively reduce PSC.	Important (Near Term)	Partially underway

Research ID	Title	Description	Council Priority	Research Status
183	Research the role of habitat in population dynamics and ecosystem processes	Research is needed on the role of habitat in population dynamics and ecosystem processes. Specifically, studies are needed to evaluate how habitat-forming species (e.g., corals) influence life history parameters (e.g., mortality, growth, movement) of FMP species and their preferred prey. Such research will identify key habitats (including essential fish habitat and habitat areas of particular concern), improve the design and management of marine protected areas, and ultimately improve stock assessments and restoration efforts.	Important (Near Term)	Partially underway
184	Evaluate efficacy of habitat closure areas and habitat recovery	Establish a scientific research and monitoring program to understand the degree to which impacts on habitat, benthic infauna, etc., have been reduced within habitat closure areas, and to understand how benthic habitat recovery of key species is occurring. (This is an objective of EFH research approach for the Council FMPs).	Important (Near Term)	Partially underway
187	Maintain indicator-based ecosystem assessment for EBS.	Maintain indicator-based ecosystem assessment for EBS.	Important (Near Term)	Underway
188	Develop indicator-based ecosystem assessments for AI (in progress), GOA, Arctic.	Develop indicator-based ecosystem assessments for AI (in progress), GOA, and the Arctic.	Important (Near Term)	Partially underway
189	Develop stock-specific ecosystem indicators and incorporate into stock assessments	Develop stock-specific ecosystem indicators and incorporate into stock assessments. (in progress)	Important (Near Term)	Partially underway
192	Collect, analyze, and monitor diet information	Collect, analyze, and monitor diet information (species, biomass, energetics), from 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 and groundfish.	Important (Near Term)	Underway
204	Tagging studies of Aleutian Islands Pacific cod and Atka mackerel	Tagging studies of Aleutian Islands Pacific cod, Atka mackerel, Alaska skate, and walleye pollock are needed to create models of short-term movement of fish relative to critical habitat (tagging for Atka mackerel and skates are partly underway).	Important (Near Term)	Partially underway
205	Age determination methods for Pacific cod, Pacific sleeper sharks, and spiny dogfish	Studies are needed to validate and improve age determination methods for Pacific cod, Pacific sleeper sharks, and spiny dogfish. Conventional tagging studies of young of the year and/or one-year old Pacific cod would be useful in this regard (partially underway for cod and dogfish).	Important (Near Term)	Partially underway
206	Biomass indices and alternate methodologies for lowest tier groundfish species	Develop biomass indices for lowest tier species (Tier 6 for groundfish), such as sharks and octopus. Explore alternative methodologies for Tier 6 stocks such as length-based methods, catchability experiments (e.g., net selectivity), or biomass dynamics models.	Important (Near Term)	Partially underway
209	Investigate factors affecting the guided angler sector of the halibut fishery	Continue to investigate factors that affect angler demand and trip supply in the guided angler sector of the halibut fishery.	Important (Near Term)	Underway
210	Develop bioeconomic models	Develop bioeconomic models with explicit age- or size-structured population dynamics for BSAI and GOA groundfish fisheries to estimate maximum economic yield and other bioeconomic reference points under uncertainty.	Important (Near Term)	Partially underway
212	Develop methods to estimate sea lion abundance	Develop new methods to estimate sea lion abundance, such as the use of unmanned aerial vehicles, which could increase the probability of acquiring abundance estimates in remote areas.	Important (Near Term)	Underway
214	Evaluate the impact of seabird bycatch in fisheries on bird populations, and methods to reduce	Assess the extent and impact of seabird bycatch in fisheries on bird populations, and develop methods to reduce seabird bycatch, particularly protected species, such as short-tailed albatross.	Important (Near Term)	Underway

Research ID	Title	Description	Council Priority	Research Status
216	Assess whether Bering Sea canyons are habitats of particular concern	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 a comparison of mid-level and apex predators to neighboring shelf/slope ecosystems.	Important (Near Term)	Partially underway
219	Monitor skate egg case concentrations every 2 to 3 years using non-invasive research design, such as in situ observation	Skate egg case concentrations should be monitored every 2 to 3 years using non-invasive research design, such as in situ observation.	Important (Near Term)	No action
220	Research on survey analysis techniques for species that exhibit patchy distributions	Continue research on the design and implementation of appropriate survey analysis techniques, to aid the Council in assessing species (e.g., Pribilof Island king crabs and rockfish) that exhibit patchy distributions and, thus, may not be adequately represented (either over- or under-estimated) in the annual or biennial groundfish surveys.	Important (Near Term)	Partially underway
222	Improve estimates of natural mortality (M) for Pacific cod.	Improve estimates of natural mortality (M) for several stocks, including Pacific cod.	Important (Near Term)	Partially underway
228	Conduct studies documenting the subsistence harvest (patterns, norms, quantities) in communities affected by Council actions.	Conduct studies documenting the subsistence harvest patterns, norms and quantities in communities that depend upon resources that may be affected by Council action.	Important (Near Term)	Partially underway
230	Examine social and economic interactions between coastal communities and commercial and recreational fisheries	Examine social and economic interactions between coastal communities and commercial and recreational fisheries (e.g. subsistence-commercial linkages, adaptations to changes in resource use, economic opportunities for coastal communities).	Important (Near Term)	Underway
231	Retrospective analysis of the impact of Chinook salmon PSC avoidance measures on the BSAI pollock fishery	Conduct retrospective analyses to assess the impact of Chinook salmon PSC avoidance 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.	Important (Near Term)	Partially underway
236	Conduct studies of sperm whale and killer whale depredation of catch in long-line fisheries and surveys	Studies of sperm and killer whale depredation of catch in long-line fisheries and surveys are needed to improve the quality of long-line abundance estimates.	Important (Near Term)	Underway
237	Improved habitat maps	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 in the GOA, BS, and Aleutian Islands.	Important (Near Term)	Underway
240	Develop a multivariate index of the climate forcing of the Bering Sea shelf	Develop a multivariate index of the climate forcing of the Bering Sea shelf. Three biologically significant avenues for climate index predictions include advection, setup for primary production, and partitioning of habitat with oceanographic fronts and temperature preferences.	Important (Near Term)	Partially underway
241	Develop bottom and water column temperature database and indices	Develop bottom and water column temperature database and indices for use in EBS, GOA, and AI stock assessments.	Important (Near Term)	Partially underway
245	Assess the impact of increases in recovering whale populations on lower trophic level energy pathways	Assess the impact of increases in recovering whale populations (e.g., gray, humpback and fin) on lower trophic level energy pathways.	Important (Near Term)	No action
246	Cooperative research efforts to supplement existing at-sea surveys that provide seasonal, species-specific information on upper trophic levels	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.	Important (Near Term)	Partially underway

Research ID	Title	Description	Council Priority	Research Status
247	Assess the relative importance of non-commercially exploited species to human communities	Assess the relative importance of non-commercially exploited species (invertebrates, fish, marine mammals, and seabirds) to human communities, particularly in Arctic.	Important (Near Term)	Partially underway
250	Conduct ecosystem structure studies	Studies are needed to evaluate the effects of global warming, ocean acidification, and selective fishing on food webs. 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).	Important (Near Term)	Partially underway
251	Modeling studies of ecosystem productivity	Modeling studies of ecosystem productivity in different regions (EBS, GOA, and AI). For example, studies could evaluate the appropriateness of the 2 million t OY cap.	Important (Near Term)	Underway
362	Monitoring potential water quality impacts	Seasonal water quality monitoring in known scallop areas are needed to determine whether conditions are detrimental to scallop growth and survival.	Important (Near Term)	No action
363	Area-specific variability in scallop population processes	Investigate area-specific variability in vital population processes including growth, recruitment, natural mortality and movement including mark-recapture tagging studies.	Important (Near Term)	No action
382	Investigate in situ methods of tagging species that experience barotrauma	Species with swim bladders experience barotrauma, so that tagging studies result in high mortality and little information. Icelandic and Norwegian scientists have developed in situ methods for tagging, so that these fish never change depth. This could provide precise estimates of movement rates from tagging studies needed for spatial stock assessments. Such a recommendation for walleye pollock is found in a 2011 Report of a Workshop on Spatial Structure and Dynamics of Walleye pollock (AFSC Processed Report 2011-04).	Important (Near Term)	No action
383	Determine quantitative indicators of spatial structure, particular for walleye pollock and Pacific cod	The next generation of stock assessment models will be spatial age- and length-structured assessment models, in line with the goal of ecosystem-based fishery management. Current distributions of spatial location have been empirically summarized, but methods should be explored to convert these to movement patterns for biological and/or management regions.	Important (Near Term)	No action
387	Determine effects of migration on the Pacific halibut population and management	Extend existing analyses of tagging studies to include age-specific components. Continue to evaluate the role of migration in contributing to population dynamics and trends associated with area-specific catch, PSC levels, and downstream effects.	Important (Near Term)	Underway
389	Investigate ecosystem effects and inter-species interactions of halibut	Investigate potential ecosystem effects and inter-species interactions on Pacific halibut recruitment and size-at-age. Includes integration of existing IPHC and NOAA trawl survey observations of size-at-age, diet, and population distribution and trends for multiple species in the GOA and BS.	Important (Near Term)	Underway
431	Develop tools for analyzing coastal community vulnerability to fisheries management changes	Develop tools for assessing and predicting coastal community vulnerability to fisheries management changes. Assess changes in community vulnerability over time by FMP and individual catch share fishery.	Important (Near Term)	Underway
451	Arrowtooth flounder stock structure and movement	Arrowtooth flounder studies to support information related to stock structure and movement for Alaskan flatfish species	Important (Near Term)	Pending
452	Dusky Rockfish and Shortspine Thornyhead genetics research for improved population structure	Genetic research to better study dusky rockfish and shortspine thornyhead population structure.	Important (Near Term)	Pending
453	Cod density in untrawlable areas in the AI	Evaluation of survey data (including IPHC long line, AFSC long line and NMFS trawl) in comparison with fishery data to better understand the proportion of cod biomass in untrawlable areas of the NMFS trawl survey.	Important (Near Term)	Pending

Research ID	Title	Description	Council Priority	Research Status
454	Sculpin natural mortality, seasonal food habits	Research to determine natural mortality for sculpin species in the GOA. Data gaps exist in sculpin species life history characteristics, spatial distribution, and abundance. GOA-specific mortality estimates would be beneficial, rather than using the M derived from BSAI sculpin species. Additionally, the collection of seasonal food habits data would help clarify the role of both large and small sculpin species within the GOA ecosystem	Important (Near Term)	Pending
455	Shark aging, size at maturity, natural mortality	For sharks - data needed on size at maturity, natural mortality, better aging methodology. May be possible to collect age data from large" sleeper sharks that are caught in IPHC surveys. Access to those animals could enhance size and maturity data."	Important (Near Term)	Pending
472	Evaluate causes of variable meat size, undersize meats in scallops	Exploratory tows in the Bering Sea (District Q) and some areas open to harvest around Yakutat (District D) have shown scallops with disproportionately small meats relative to shell height. The cause of this condition as well as potential for recovery is unknown to industry.	Important (Near Term)	Pending
494	Investigate skate egg concentration areas as EFH and HAPC	Skate conservation and skate egg concentration areas remain a priority for EFH and HAPC management and within Council and NMFS research plans.	Important (Near Term)	No action
513	Evaluate extent and importance of parasites in scallop populations	Samples from Bering Sea scallops with weak meats were collected and sent to the ADF&G Anchorage Pathology Lab for analysis of any evidence of diseases and/or parasites. The results showed that the scallops were infected with an apicomplexan-like parasite. To further evaluate the geographic extent and infection rates of this parasite, a sampling effort was initiated in July 2015 to collect samples from select locations across the state, from Yakutat to the Bering Sea.	Important (Near Term)	Partially underway
532	Natural mortality estimation for crab stocks	Pending feedback from PT	Important (Near Term)	No action
553	Population structure of scallops	Currently scallop beds are monitored independently. Knowledge of source/sink dynamics and meta-populations processes will improve the ability to manage weathervane scallops at the stock level.	Important (Near Term)	No action
554	Molt and mate timing for Norton Sound red king crab	Within the assessment, there are conflicting observations about molt timing in April/May versus August/September. Moreover these observations suggest the potential for biennial mating. These issues could have important consequences on the assessment model.	Important (Near Term)	No action
555	Herring genetics on overwintering and spawning grounds	A comparison of genetic composition of herring on the overwintering grounds and on the spawning grounds is needed to evaluate population structure.	Important (Near Term)	No action
556	Herring PSC estimation in groundfish fisheries	Recent observer estimates of herring PSC in the groundfish trawl fishery should be used to explore the seasonal migration of herring in relation to variability in climate and oceanographic conditions. This may provide information to re-evaluate the appropriateness of the current Herring Savings Areas and may also provide insights regarding implications of climate change.	Important (Near Term)	No action
175	Develop age-structured models for scallop assessment	Age structured models for scallops are needed to increase understanding of population dynamics and harvestable surpluses.	Strategic (Future Needs)	Partially underway
177	Conduct prospective and retrospective analyses of changes in the spatial and temporal distribution of fishing effort in response to management change	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).	Strategic (Future Needs)	Partially underway
191	Assess whether changes in pH and temperature would affect managed species, upper level predators, and lower trophic levels.	Assess whether changes in pH and temperature would affect managed species, upper level predators, and lower trophic levels. Laboratory studies are needed to assess the synergistic effects of ocean acidification and changes in temperature on productivity of marine species.	Strategic (Future Needs)	Partially underway

Research ID	Title	Description	Council Priority	Research Status
193	Improve species identification	Improve species identification, by both processors and observers, for priority species within species complexes in catches, to meet requirements of total removals under ACLs. Methods that quantify and correct for misidentifications are desired.	Strategic (Future Needs)	Partially underway
194	Identification and integration of archived data	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. Some archival acoustic data have been cataloged, and most trawl surveys have been included in databases. Some one-time research surveys remain neglected.	Strategic (Future Needs)	Partially underway
196	Evaluate hybridization of snow and Tanner crabs.	Evaluate the assessment and management implications of hybridization of snow and Tanner crabs.	Strategic (Future Needs)	Partially underway
198	Initiate and expand non-market valuation research of habitat, ecosystem services, and passive use considerations	Initiate and expand non-market valuation research of habitat, ecosystem services, and passive use considerations.	Strategic (Future Needs)	No action
200	Monitor contaminant flux and loads in lower and higher trophic levels, and assess potential for impact on vital rates.	Monitor contaminant flux and loads in lower and higher trophic levels, and assess potential for impact on vital rates. Laboratory studies are needed to assess the effects of oil dispersants on the productivity of marine species.	Strategic (Future Needs)	No action
215	Determine potential impacts of fishing activities on marine mammals	Determine potential impacts of fishing activities on marine mammals (e.g., state managed gillnet fisheries), and in particular on North Pacific right whales and the Eastern North Pacific blue whales, particularly in identified critical (NPRW) or essential (NPBW) habitat.	Strategic (Future Needs)	No action
221	Collect maturity scans during fisheries that target spawning fish	Expand existing efforts to collect maturity scans during fisheries that target spawning fish (e.g., pollock). Time series of maturity at age should be collected to facilitate the assessment of the effects of density-dependence and environmental conditions on maturity. Maturity information for pollock and Pacific cod is collected by observers and should be analyzed. Maturity information for rockfish species near Kodiak has been collected recently, both during the fishery and dedicated scientific cruises, and should be analyzed. A dedicated survey to examine spawning sablefish has also been conducted. Efforts to collect maturity data, and then analyze for rockfish and other species should continue. In particular, retrospective studies to identify factors (e.g., fishing, climate, prey quality and quantity) influencing the maturity schedule should be conducted.	Strategic (Future Needs)	Underway
223	Develop and evaluate global climate change models (GCM) or downscaled climate variability scenarios to assess impacts to recruitment, growth, and spatial distributions.	Quantify the effects of historical climate variability and climate change on recruitment, growth, and spatial distribution. Develop standard environmental scenarios (e.g., from GCMs) for present and future variability based on observed patterns.	Strategic (Future Needs)	Underway
224	Climate and oceanographic information covering a wider range of seasons	There is a need for climate and oceanographic information that covers a wider range of seasons than is presently available.	Strategic (Future Needs)	Partially underway
225	Development of projection models to evaluate (a) the robustness and resilience of different management strategies under varying environmental and ecological conditions and (b) to forecast seasonal and	There is a need for the development of projection models to evaluate the robustness and resilience of different management strategies under varying environmental and ecological conditions. Projection models are also needed to forecast seasonal and climate related shifts in the spatial distribution and abundance of commercial fish and shellfish.	Strategic (Future Needs)	Partially underway
233	Develop an ongoing database of product inventories	Development of an ongoing 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.	Strategic (Future Needs)	No action
234	Analyze current determinants of demand for principal seafood products	Analyze current determinants of ex vessel, wholesale, international, and retail demand for principal seafood products from the GOA and BSAI.	Strategic (Future Needs)	Partially underway

Research ID	Title	Description	Council Priority	Research Status
238	Develop a GIS relational database for habitat, to include a historical time series of the spatial intensity of interactions between commercial fisheries and habitat.	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. Such time series are needed to evaluate the impacts of changes in fishing effort and type on EFH.	Strategic (Future Needs)	Underway
242	Collect and maintain primary production time series	Collect and maintain primary production time series in the EBS, AI, GOA, and Arctic; particularly in relationship to key climate and oceanographic variables.	Strategic (Future Needs)	Partially underway
244	Collect and maintain time-series data on the community composition, production and biomass of benthic invertebrate and vertebrate fauna	Collect and maintain time-series data on the community composition, production and biomass of benthic invertebrate and vertebrate fauna.	Strategic (Future Needs)	Partially underway
248	Measure and monitor large scale fish composition	Measure and monitor large scale 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, monitor changes in the distribution of assemblages, and understand the spatial importance of predator-prey interactions in response to environmental variability. Additional monitoring may be necessary in the Aleutian Islands, northern Bering Sea, and areas of the Gulf of Alaska.	Strategic (Future Needs)	Partially underway
361	Effects of Ocean Acidification on Scallops	Laboratory studies are needed to understand the mineralization of scallop shells through their life cycle and under current spatial variability and future scenarios of ocean acidification.	Strategic (Future Needs)	No action
386	Investigate long term effects of fishing on Pacific halibut	Collect genetic samples for future comparison.	Strategic (Future Needs)	Underway
390	Assess the population status of harbor seals in the Aleutian Islands and determine factors affecting their population trajectories	Assess the population status of harbor seals in the Aleutian Islands and determine factors affecting their population trajectories	Strategic (Future Needs)	No action
536	Evaluate incorporation of climate change impacts into stock assessments	Climate change impacts are becoming an increasingly important consideration for long term planning and should be included in projections of exploitable fish stocks and associated ecosystem components. Incorporation of climate-based parameters into fish stock assessments will allow for exploration of harvest scenarios in the context of evolving climate conditions. Research is needed to explore how these parameters can be integrated into fishery stock assessments.	Strategic (Future Needs)	Underway
537	Identification of best practices for long term storage of ageing structures.	Archived ageing structures such as otoliths can deteriorate over time unless they are stored in appropriate media. Loss of archived structures reduces the potential for obtaining information through techniques such as micro-chemical analysis. Best practices for long term storage are currently not well established.	Strategic (Future Needs)	Partially underway