AGENDA D-4(a, b)
APRIL 2010

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME
6 HOURS
ALL D-4 ITEMS

DATE: March 30, 2010

SUBJECT: Misc issues – EFH and HAPC

ACTION REQUIRED

(a) EFH 5-year Review, action as necessary
(b) Review and adopt HAPC criteria and priorities

BACKGROUND

(a) EFH 5-year Review, action as necessary

The EFH Final Rule and each of the Council's FMPs require that a review of EFH components be completed every 5 years. The Final Rule provides guidance that EFH provisions be revised or amended on this timeline, as warranted, based on available information. There are ten EFH components that are included in each of the Council's FMPs, and any change to text of the FMP requires a formal FMP amendment. The ten components are: 1. EFH descriptions and identification; 2. Fishing activities that may adversely affect EFH; 3. Non-Magnuson-Stevens Act fishing activities that may adversely affect EFH; 4. Non-fishing activities that may adversely affect EFH; 5. Cumulative impacts analysis; 6. EFH conservation and enhancement recommendations; 7. Prey species list and any locations; 8. HAPC identification; 9. Research and information needs; and 10. Review EFH every 5 years.

A summary report of the EFH 5-year review for 2010 was mailed to the Council in March 2010. The report includes reviews of the individual species EFH information for five of the Council's FMPs (BSAI and GOA groundfish, crab, scallop, salmon) [1], as well as the review of impacts on EFH from fishing and non-fishing activities. The summary report was mailed to the Council before the Crab Plan Team had an opportunity to discuss the crab stock assessment authors' review of crab species EFH. Consequently, a supplement to the report is attached as Item D-4(a)(1), which revises chapter 7 of the report to reflect the Crab Plan Team's recommendations. The Crab Plan Team's minutes are also available, under agenda item D-1.

The Council's action at this meeting is to review the summary report, and decide whether further action is needed. Based on the review, the Council will decide whether any of the new information highlighted in the review warrants initiating further evaluation, or FMP amendments to revise EFH descriptions and recommendations in the Council FMPs. Chapter 14 of the report, which summarizes conclusions from

[1] Note, the EFH provisions of the Council's Arctic FMP have just recently been reviewed during the FMP's development and adoption, in 2009.

the review (updated to reflect the Crab Plan Team's recommendations), is attached as Item D-4(a)(2) for your convenience. The Ecosystem Committee is meeting on Wednesday, April 7, in order to provide comments or recommendations to the Council on this agenda item. The Committee minutes will be distributed at the meeting.

(b) Review and adopt HAPC criteria and priorities

Habitat Areas of Particular Concern (HAPCs) are geographic sites that fall within the distribution of EFH for the Council's managed species. The Council has a formalized process, identified in the FMPs, for selecting HAPCs. Under this process, the Council will periodically consider whether to set priority habitat types. This action initiates a Council call for proposals for candidate sites to be identified as HAPC, which meet the specific, priority habitat types. Proposals may be submitted by members of the public, organizations, or Federal or other agencies. The sites proposed under this process are then sent to the Council Plan Teams for scientific review, to determine whether they have ecological merit, and are also reviewed for socioeconomic and management and enforcement impacts. This combined information is presented to the SSC, the AP, and the Council, and the Council may choose to select various HAPC proposals for further analysis and implementation.

The Council has decided to consider whether to set habitat priority types, thus initiating a call of proposals, in conjunction with the completion of the EFH 5-year review process. A discussion of the last HAPC proposal process (in 2003-2004), suggestions for HAPCs that have come before the Council since that time, and suggestions for possible HAPC priorities resulting from the EFH 5-year review process are summarized in chapter 12 of the EFH summary report, which is attached as Item D-4(b)(1).

During the previous HAPC proposal cycle, in 2003-2004, the Council received feedback from the public and the Plan Teams criticizing the criteria established to evaluate the HAPC site proposals. The Council asked the SSC to revise the criteria prior to a new HAPC call for proposals. In February 2010, the SSC presented the Council with revised criteria (Item D-4(b)(2)), and these have been made available for public comment since the February meeting.

The Council's action at this meeting is to decide whether to set HAPC priorities, and thus initiate a call for proposals for candidate sites. The Council also needs to adopt revised criteria for evaluating proposals, which will be published with the call for proposals. Item D-4(b)(3) is a draft Request for Proposals (RFP) for your review. Should the Council decide to go forward with setting HAPC priorities, the priorities would be inserted in the draft, and the call for proposals will be announced in the Federal Register and in the Council newsletter. A draft schedule outlining the steps involved in the HAPC process is also provided below.

Steps in the HAPC process	Draft Timeline
Council sets HAPC priorities	April 2010
Prepare and issue call for proposals; proposal period open	May 3-August 16 (14 weeks)
Initial screening of proposals for adherence to priorities; Council selects proposals to go forward for review	October 2010
Socioeconomic and enforcement review of proposals by staff	October-November
Plan Teams joint meeting to review of proposals for ecological merit	January 2011
Council decision on whether to formulate proposals into an amendment analysis	February 2011
Initial review of amendment analysis	April 2011
Final action on amendment analysis	June 2011

7 EFH descriptions for BSAI king and Tanner crab species

7.1 What are the BSAI crab species?

Since the 2005 EFH EIS, an FMP amendment has removed certain crab species from the BSAI Crab FMP (further described in Section 4.3)[14]. The managed species currently identified in the BSAI Crab FMP, and which were reviewed as part of this process, are the following:

- red king crab
- blue king crab
- golden king crab
- Tanner crab
- Snow crab

7.2 Summary of EFH review for individual species changes

Each stock assessment author was asked to review the current FMP text relating to EFH for the assessed species or species complex, based on new information that has become available in the five years since EFH was last evaluated. The author completed a worksheet with some general questions about new habitat information available since the 2005 EFH EIS, and recommendations on potential HAPC or EFH conservation recommendations. The author also revised the existing FMP text with recommended changes or updates. There are several components in the FMP that relate to EFH for each species:

- EFH description by life history stage, in text and in maps, including an indicator for how much habitat information is known about each life history stage
  - This is the legal description of EFH, based on which EFH consultations for fishing and non-fishing effects on EFH are held as directed by the Magnuson-Stevens Act
- General information about the life history and distribution of the species/complex, the fishery, relevant trophic information, and habitat and biological associations
- A literature section that cites references of where habitat information on the species/complex can be found, and a section listing contact people for more information on the species
- Conclusions from the evaluation of fishing effects on EFH for the species, summarized from the 2005 EFH EIS

Table 8 provides an overall summary of the EFH reviews by species. To further explain the summary table, the major changes recommended to the EFH text for each species are detailed in bulleted form in Section 7.3. The detailed changes to the FMP text for each species, as suggested by the authors, are included in Appendix 3 to this document (which is posted online at www.alaskafisheries.noaa.gov/npfmc). The authors incorporated relevant findings from the EFH research projects described in Section 4.2, as well as other new information available on crab habitat (also detailed in Appendix 3) in their individual species reviews, and reviewed the change in fishing intensity maps described in Section 10.1.1.

[14] Note, there is some discrepancy as to whether EFH text relating to scarlet king crab, Grooved tanner crab, and Triangle tanner crab is still intended to be in the FMP, even though these species were clearly removed under Amendment 24. The removal of this EFH text would constitute a housekeeping amendment to the FMP, however, and these species were not evaluated as part of this 5-year review.

The BSAI Crab Plan Team reviewed the stock assessment authors' recommended changes during their March 2010 Plan Team meeting, and provide recommendations for the SSC and the Council. Table 8 incorporates the changes that were recommended coming out of the Plan Team meeting. The Plan Team also had recommendations about a suggested HAPC priority for Council consideration (see Section 12.3), and EFH research for crab species (see Section 13.3).

Overall, the Plan Team recommended that further analysis should be undertaken to evaluate fishing effects on crab stocks, and consequently identified that their EFH recommendations for the Council should be considered a high priority for Council action. Distribution of crab stocks, particularly red king crab, has changed since the analysis in the 2005 EFH EIS. Additionally, the methodology used in the 2005 effects of fishing analysis may not adequately capture actual impacts of fishing on crab populations. Other parameters may need to be considered for crab stocks, such as the importance of oceanographic currents for crab settlement. This is applicable to the assessment of all crab stocks. Also, the conclusions in the 2005 EFH EIS imply that more is known about the effects of fishing on the habitat needs and life history stages of crab (especially growth to maturity) than can be substantiated, based on research-to-date. Therefore the Crab Plan Team recommends further evaluation of the effects of fishing be undertaken, to decide whether the conclusions in the FMP are valid.

Table 8 EFH review of BSAI crab species, with recommended changes to the existing EFH FMP text

KEY: yes = Plan Team has recommended updates to the existing FMP text, based on new information
e/c = author has recommended editorial changes or clarifications to the existing FMP text
"–" = no changes to the existing text have been recommended

Species	Recommended changes to the FMP text										Worksheet recommendations		Plan Team: priority recommendation
	EFH description			General information						2005 evaluation of fishing effects on EFH			
	text	map	available level of information	tables of associations	life history, gen. distribution	trophic information	biological/ habitat associations	literature	description of fishery		HAPC[15]	EFH conservation and enhancement	
Red king crab	-	-	-	yes	yes	yes	-	-	yes	yes	yes	-	high
Blue king crab	-	-	-	yes	e/c	yes	e/c	-	e/c	yes	-	-	high
Golden king crab	-	-	-	yes	yes	yes	yes	yes	yes	yes	-	-	high
Tanner crab	e/c	-	-	yes	yes	yes	yes	yes	yes	yes	-	-	high
Snow crab	-	-	-	yes	yes	yes	yes	yes	yes	yes	-	-	high

7.3 Description of recommendations for EFH text for individual species

A description of the recommendations that are captured in the summary table (Table 8) is provided below for each individual species or species complex for which EFH is defined in the BSAI Crab FMP. The complete review for each species may be found in Appendix 3 to this document (which is posted online at www.alaskafisheries.noaa.gov/npfmc).

Red king crab

- updates to prey associations, natural mortality, recent fishery information
- author suggests change to evaluation of fishing effects; effects of fishing on spawning and breeding may be more than minimal and not less than temporary in southern Bristol Bay, specifically. The area is an important spawning ground for red king crab and also subject to high trawling intensity, which may greatly impact crab spawning success. Most of the distribution of red king crab was north and east of the high intensity fishing areas, however a high density of mature female crab were found in the area during 2008-2009, and it appears that mature female crab may have moved back to this historical important spawning ground. Given this current overlap, professional judgment indicates that trawling fisheries have currently adversely affect the EFH of red king crab. Beyond southern Bristol Bay, other fishing may have minimum impacts on red king crab EFH.
- Plan Team comments: agreed with the author that there is evidence that the effect of fishing on spawning/ breeding populations could be substantial. As per the general recommendation above, further evaluation is required to determine whether a change to the FMP's conclusions is warranted. The Plan Team also recommended the Council consider red king crab spawning habitat as a HAPC priority type.

Blue king crab

- updates to age at maturity, editorial clarifications
- author suggests that insufficient information is available to determine EFH for late juvenile and adult life stages
- author recommends changing determination of effect of fishing on growth to maturity to "unknown"
- Plan Team comments: disagreed with author's recommendation to change EFH information from Level 1 (information is available to describe EFH) to Unknown, based on the clarification that EFH has been defined by the Council as the general distribution of the species. Recommended that this clarification be explicitly added to the FMP text. Agreed with author's modification of the effects of fishing on growth to maturity from MT (minimal and not more than temporary) to unknown. No available studies are available on growth to maturity, such that a conclusion of MT could be supported.

Golden king crab

- author suggests that insufficient information is available to determine EFH for late juvenile and adult life stages; current EFH distribution for these species is equivalent to stock distribution
- updates to size at sexual maturity, reproductive cycle, depth associations by life history stage
- recent fishery information updated
- literature references added
- author recommends changing determination of effect of fishing on spawning/breeding to "unknown", however notes that there is no information suggesting that overall fishing effects on golden king crab EFH are beyond minimal and temporary
- Plan Team comments: as with blue king crab, disagreed with author's recommendation to change the status of available EFH information, but recommended that appropriate clarification be added to the document to note that EFH is defined based on general distribution. A minor edit was recommended to the water column association for larvae, to replace pelagic with unknown. For the evaluation of fishing effects, the CPT recommended that the MT conclusion be provisionally retained for spawning and breeding (consistent with the rationale for blue king crab, some

information is available on the number of breeding crab caught as bycatch in fishing operations). The Team supported 'unknown' for the other conclusions.

Tanner crab

- editorial clarifications to EFH text description and evaluation of fishing effects summary
- updates to size and age at maturity, natural mortality, fecundity, reproduction, and predator and prey associations
- substantial clarifications and additions to life history and general distribution, and fishery description
- literature references added
- Plan Team comments: disagreed with the author's proposed change to the EFH text description for eggs based on the clarification that the rationale for this determination is that egg distribution can be reasonably inferred from adult distribution. Recommended that the fishing effects evaluation conclusions be modified to 'unknown' for consistency with the approach used to evaluate other species.

Snow crab

- updates to prey associations, natural mortality, molting and mating cycle, recent fishery information
- literature reference added
- Plan Team comments: As with Tanner crab, recommended modifying the fishing effects conclusions to 'unknown' to be consistent with other reviews. The Team noted that the summary text for this species should also be edited to include this rationale.

14 Conclusions and Council action

The 5-year EFH review has been completed and is documented in this summary report (with the exception of recommendations from the Council's BSAI Crab Plan Team, which will be provided at the April Council meeting as a supplement to this report). At this stage, the Council's primary decision point will be to determine whether, based on the new information available in the last five years, revisions to any of the Council's FMPs are warranted, which would require initiation of FMP amendments and associated analysis.

The Council also decided, in June 2009, to delay the consideration of whether to initiate a new HAPC proposal cycle until the completion of the EFH 5-year review. Consequently, another decision point for the Council is to decide whether to set HAPC priorities, thus initiating a call for proposal for specific sites to define as HAPCs. Section 12 provides some guidance to the Council on HAPC priorities that have been suggested since the last HAPC proposal cycle, both within the Council process and as part of the EFH review.

In order to provide some guidance for the Council with respect to whether to initiate FMP amendments for revising EFH, the recommendations contained within the review are summarized in Table 22. If FMP amendments are initiated, the Council will go through the normal FMP amendment process, with the development of an analysis to support the amendment (to comply with NEPA and Regulatory Flexibility Act requirements, and EO 12866 if a change to the regulations is also anticipated), and initial review and final action by the Council. The considerations before the Council can be summarized as follows:

- Do the EFH descriptions and geographical distributions for individual species warrant revising in the FMP? Should the FMPs be revised to reflect new information on their life history, biological/ habitat/ predator-prey associations, or fishery?
- Is a new evaluation of the adverse effects of fishing on EFH needed?
- Should any new conservation measures be considered to mitigate adverse effects of fishing?
- Should the conservation and enhancement recommendations for nonfishing threats to EFH be revised in the FMPs?
- Is there a need to identify new HAPC priority types, and thus initiate a call for proposals for candidate sites to be considered for special management as HAPCs?
- Does the Council want to identify new directions for EFH research for the next 5 years?

Table 22 Summary of recommended changes to the FMPs resulting from the EFH 5-year review

EFH component	Council FMP	Recommended change	Priority?
EFH descriptions of individual species	BSAI Groundfish	**Amendments are recommended for all 24 species or complexes** whose habitat is described in the FMP, to revise some aspect of the EFH description	The BSAI Plan Team provided recommendations about whether these amendments constitute low or higher priorities. • Revisions for three species are identified as moderate priority amendments that have the potential to affect management of the species (because of a change to the geographical distribution of EFH, or to the way the species is managed within a complex). • The Team recommended deleting one EFH description from the FMP.
	GOA Groundfish	**Amendments are recommended for all 24 species or complexes** whose habitat is described in the FMP, to revise some aspect of the EFH description	As above, the GOA Plan Team provided recommendations about whether these amendments constitute low or higher priorities. • Revisions for seven species are identified as high priority amendments, and five as moderate priority amendments that have the potential to affect management of the species (because of a change to the geographical distribution of EFH, or to the way the species is managed within a complex). • The Team recommended deleting one EFH description from the FMP.
	BSAI Crab	**Amendments are recommended for all 5 species or complexes** in the FMP, to revise general EFH and fishery information for each species, and to reconsider the conclusions of the effects of fishing evaluation.	The Crab Plan Team recommended, as a higher priority, that further evaluation of the conclusions regarding the effects of fishing on crab EFH be undertaken to decide whether the conclusions summarized in the FMP are valid (see also below)
	Scallop	**An amendment is recommended for the one species** whose habitat is described in the FMP, to revise aspects of the EFH description	The Scallop Plan Team recommended that this amendment be considered a higher priority, as a change to the geographical distribution of weathervane scallop EFH is proposed.
	Salmon	**Amendments are recommended for all 5 species** in the FMP, to revise some aspect of the EFH description	The proposed changes do not affect the geographical distribution of EFH for marine salmon species, therefore using the same rationale as the other Plan Teams, these may be considered to be low priority amendments.

EFH component	Council FMP	Recommended change	Priority?
Fishing activities that may adversely affect EFH	All Council FMPs	**A general re-evaluation of the effects of fishing activities on EFH is not recommended.** Recent research results are consistent with the habitat sensitivity and recovery parameters and distributions of habitat types used in the prior analysis of fishing effects for the EFH EIS. Fishing intensity has decreased overall, gear regulations have been designated to reduce habitat damage, and area closures have limited the expansion of effort into areas of concern. **For crab species, however, re-evaluation is recommended.**	The Crab Plan Team has identified concerns with the conclusions and methodology of the evaluation of effects of fishing specifically on crab stocks, and recommends that further analysis be undertaken.
Non-fishing activities that may adversely affect EFH	All Council FMPs	**Amendments are recommended to update EFH conservation recommendations for 14 of 22 nonfishing activities.**	Recommendations are used by NMFS to consult with other agencies about Federal activities affecting EFH; updating these recommendations may be important for accurate consultation.
HAPC identification	Potentially all Council FMPs	Review has provided some suggestions for HAPC priorities (see Sections 12.2 and 12.3).	The Council is not obligated to identify HAPCs, only to consider whether it is appropriate to do so.
Research and information needs	Potentially all FMPs	The Council's research priority objectives from 2005 have largely been met, however many of the research questions are still valid and remain to be investigated (see Section 13.1.1). The Council may wish to identify new objectives to guide EFH research over the next 5 years.	

12 HAPC recommendations

Habitat areas of particular concern (HAPCs) are areas within essential fish habitat (EFH) that may require additional protection from adverse effects. Essential fish habitat is designated for the managed species identified in the Council's five Fishery Management Plans (BSAI and GOA groundfish, BSAI crab, Scallop, and Salmon). The EFH guidelines provide that HAPCs may be identified as specific types or areas of habitat within EFH, based on one or more of the following four considerations:

1. The importance of the ecological function provided by the habitat.
2. The extent to which the habitat is sensitive to human-induced environmental degradation.
3. Whether, and to what extent, development activities are, or will be, stressing the habitat type.
4. The rarity of the habitat type.

The Council will consider HAPCs that meet at least two of the four HAPC considerations above, and rarity will be a mandatory criterion of all HAPC proposals.

12.1 HAPC nomination processes

In 2005, the Council formally revised its approach to the designation of HAPCs by adopting a site-based approach. To date, there has been one HAPC nomination process, initiated in October 2003, which resulted in the implementation of several HAPC designations in the Gulf of Alaska and the Aleutian Islands in 2006. For the initial 2003-2004 HAPC process, the Council identified two specific priority areas for HAPC proposals:

1. Seamounts in the exclusive economic zone (EEZ), named on National Oceanic and Atmospheric Administration (NOAA) charts, that provide important habitat for managed species.
2. Largely undisturbed, high-relief, long-lived hard coral beds, with particular emphasis on those located in the Aleutian Islands, which provide habitat for life stages of rockfish or other important managed species.

Additionally, nominations were to be based on best available scientific information and include the following features:

1. Sites must have likely or documented presence of Fishery Management Plan (FMP) rockfish species.
2. Sites must be largely undisturbed and occur outside core fishing areas.

The Council received 23 HAPC proposals from six different organizations. The proposals were reviewed by the Plan Teams, and by staff to consider management, enforcement, and socioeconomic issues. Ultimately, the Council identified a range of alternatives, staff completed an analysis, and the Council established several new HAPCs. Management measures for these HAPCs were implemented in August 2006.

12.2 Recommendations currently on table for Council HAPC consideration

Since the Council last initiated a HAPC proposal cycle (in 2003-04), there have been various occasions on which the Council has considered HAPC priorities or candidate sites. In some cases, the Council has directed that these priorities or areas be brought forward for their upcoming consideration of whether to re-initiate a HAPC proposal cycle (summarized in Table 14).

During the 2003-4 HAPC proposal cycle, six proposals were received that did not meet the Council's designated priorities at that time. These identified two sites in the Bering Sea with dense aggregations of soft corals; three deepwater canyons, two in the Bering Sea and one in Prince William Sound; 54 pinnacles in the Gulf of Alaska; 82 pinnacles in the Aleutian Islands; and the Eight Fathom Pinnacle in the Gulf of Alaska. The Council minutes from April 2004 note that these proposals were removed from the current analysis, but were placed on hold for further consideration under the next HAPC cycle. The proposals would be considered "alive", and need not be re-submitted, although it was expected that the submitters would participate in updating and revising their proposals.

In 2006-2007, the Council considered whether to initiate a HAPC proposal process during discussion related to Bering Sea Habitat Conservation. There were two parts to this discussion. First, the Council reviewed the previous HAPC cycle process, and decided that a review of process was needed to address Plan Team and public concerns. Some of these concerns included: how the Council assembles proposed HAPC nominations; the need to ensure uniformity in the information provided in the proposals; and the need for better definitions of the HAPC criteria, such as the requirement for 'rarity' of candidate HAPCs. The Council formally revised the HAPC process to address many of these concerns, and asked the SSC to provide further definition of the HAPC criteria prior to the next Council call for proposals. Following discussion through an SSC, agency, and Plan Team workgroup, the Council adopted the SSC's recommended revisions to the HAPC criteria at the February 2010 Council meeting.

Secondly, in 2007, the Council considered whether to set a HAPC priority for Bering Sea skate nurseries and/or Bering Sea canyons. A summary of available research on these subjects was prepared and presented. Following public input and Plan Team and SSC review, the Council determined that it would be premature to initiate a call for proposals as there were no identified conservation concerns at that time. These habitat priority types are also brought forward for the Council's upcoming HAPC priority consideration.

In June 2009, the Council considered whether to set priorities for identifying HAPCs and resolicit for HAPC proposals. The Council opted to postpone this decision pending the completion of this five-year EFH review. The Council chose to synchronize the timing of the two actions so that the results from the five-year review can be considered in setting HAPC priorities, and the HAPC proposal cycle that might result.

Table 14 Recommendations on HAPC priorities from previous Council discussions

HAPC discussion at the Council	Priority types forwarded for consideration in 2010
2003-2004 proposal process: proposals submitted that did not meet with the Council's designated priorities at that time	dense aggregations of soft corals (2 sites identified in the Bering Sea) deepwater canyons (2 in the Bering Sea, 1 in Prince William Sound) pinnacles (54 in the Gulf of Alaska, 82 in the Aleutian Islands)
2006-2007 discussion of Bering Sea Habitat Conservation	skate nurseries (in the Bering Sea) deepwater canyons (Pribilof and Zemchug)

12.3 Recommendations on HAPCs from the 5-year review

In April 2009, the SSC recommended that the Council consider permanently changing the timeline for consideration of HAPC priorities and candidate sites to align it with the EFH 5-year review. Currently, the HAPC cycle is designated to be considered by the Council on a three-year cycle, or initiated at any time by the Council.

Additionally, Table 15 identifies recommendations on HAPC priorities that resulted from the EFH 5-year individual species reviews, for the Council's consideration in the next HAPC proposal cycle.

Table 15 Recommendations on HAPC priorities from the individual species reviews

Council FMP	Species	Recommendation
BSAI and GOA Groundfish	Sablefish	Areas of extensive and intensive bottom trawling should be of concern. An abundance of pre-recruit sablefish 1-3 yrs old were noted in the late 70s and early 80s in some areas that are currently trawled intensively. Pre-recruit sablefish have been absent or present in only much reduced numbers since. Research on the ecosystem effects from intensive trawling should be conducted. Small unobtrusive research closures would be a responsible step for NMFS in determining whether EFH is adversely affected. *Note, this recommendation was originally made by the individual species authors, and forwarded by the Groundfish Plan Teams.*
BSAI Groundfish	Skates	The Council may want to consider closing known skate nurseries to fishing activity. I know the Council has discussed this in the past; I'm not sure where things stand at the moment. *Note, this recommendation was originally made by the individual species author, and forwarded by the BSAI Groundfish Plan Team.*
BSAI Crab	Red king crab	The Council should consider identifying red king crab spawning habitat as a HAPC priority type. A specific area in southwest Bristol Bay has been identified that may provide important habitat for red king crab spawning, with direct oceanographic transport to juvenile rearing areas. Should the Council choose to move forward with this as a HAPC priority, the CPT would be prepared to put forward a proposal to the Council to nominate this area as a HAPC in the time frame the Council allows for these proposals, as it appears to meet the criteria identified by the Council for HAPCs (e.g., ecological function, rarity). *Note, this recommendation was made by the Crab Plan Team.*

Proposed NPFMC evaluation criteria for HAPC proposals

for public review; Council intends to adopt criteria in April 2010

The EFH provisions indicate that the Council should identify HAPCs based on one or more of four considerations. The Council has decided as part of its HAPC process, in the FMPs, that HAPCs in Alaska must meet at least two of the four considerations, of which at least one should be the 'rarity' consideration. Proposals are evaluated by the Plan Teams and the SSC based on how they compare against these four considerations. In order to address concerns during the last HAPC proposal process about how the considerations are to be interpreted, the Council has adopted the following revised HAPC criteria evaluation process, which will be used in evaluating submitted proposals nominating HAPC sites.

Factor →	**Rarity**	**Ecological Importance**	**Sensitivity**	**Level of Disturbance** (applicable to activities other than fishing)
EFH Final Rule Consideration:	*The rarity of the habitat type.*	*The importance of the ecological function provided by the habitat*	*The extent to which the habitat is sensitive to human induced environmental degradation*	*Whether and to what extent development activities are or will be stressing the habitat type*
Score 0	Habitat[1] common throughout the Alaska regions: Gulf of Alaska, Bering Sea, Aleutian Islands, and Arctic.	Habitat does not provide any ecological associations[2].	Habitat resilient (not sensitive).	Habitat not subject to developmental stress.
1	Habitat less frequent and occurs to some extent in 2 or more regions.	Habitat provides little structure[3] or refugia. Foraging and spawning areas do not exist.	Habitat somewhat sensitive and quickly recovers; 1- 5 years. Effects considered temporary.	Habitat is or will be exposed to minimal disturbance from development.
2	Habitat unique, less frequent, and occurs to some extent in 1 or 2 regions.	Habitat exhibits structure and provides refugia or substrates for spawning and foraging.	Habitat sensitive and recovery is within 10 years. Effects considered temporary, however may be more than minimal.	Habitat is or will be stressed by activities. Short term effects evident.
3	Habitat unique and occurs in discrete areas within only one region.	Complex habitat condition and substrate serve as refugia, concentrate prey, and/or are known to be important for spawning.	Habitat is highly sensitive and slow to recover; exceeds 10s of years. Effects will persist and more than minimal.	Habitat is or will be severely stressed or disturbed by development. Cumulative impacts require consideration from long term effects.

[1] Habitat includes living (infauna, epifauna, megafauna, etc.) and non-living substrate (rock, cobble, gravel, sand, mud, silt, etc.) as well as pelagic waters important to managed species. *[NOTE: new SSC edit in Feb 2010]*

[2] Ecological associations are those associations where the habitat provides for reproductive traits (i.e. spawning and rearing aggregations) and foraging areas; areas necessary for survival of the species. Associations include habitat complexity (features, structures, etc.) and habitat associations (provide refugia, spawning substrates, concentrate prey, etc.). Ecological importance is not to be applied across all waters or substrates.

3 'Structure' refers to three-dimensional structure.

Data Certainty Factor

The Data Certainty Factor (DCF) determines the level of information known to describe and assess the HAPC. The DCF is used to determine if information is adequate prior to taking further action. Thus, a HAPC proposal with a high criteria score and a low DCF is to be highlighted (flagged) as a potential candidate for HAPC and for further consideration as a research priority. The DCFs are color coded according to their weight to provide a visual way of informing the criteria scores, i.e., proposal scores with a DCF of 3 are color coded green, scores with a DCF of 2 are color coded yellow, and scores with a DCF of 1 are color coded red

Weight	Data Certainty
3	Site-specific habitat information is available.
2	Habitat information can be inferred or proxy conditions allow for information to be reliable.
	Habitat information does not exist; neither by inference or proxy.

HAPC Proposal Rank

HAPC ranking formula provides a color coded score (sum of criteria scores) to further the proposal along within the immediate HAPC Process. A high ranked HAPC with a DCF of 3 (score color coded green) has a high criteria score and information exists to assess the site.

HAPC Proposal Rank = Additive HAPC Criteria Score supplemented with Data Certainty Factor

Example evaluation of HAPC proposals:

HAPC Evaluation	Proposal A	Proposal B	Proposal C
Rarity	0	2	3
Ecological Importance	2	1	3
Sensitivity	2	3	3
Stress	n/a	n/a	2
Criteria Total (+)	4	6	11
Data Certainty Factor	3	3	
HAPC Proposal Rank (=)	**4**	**6**	
Research Priority Flag			

The top scoring proposals within each color category could then be forwarded for further consideration with the additional information that red high criteria scores may warrant consideration as a research priority and may not be an appropriate candidate for HAPC until further research is conducted.

HAPC Request for Proposals 2010

Proposals due August 16, 2010

North Pacific Fishery Management Council: Request for Proposals for Habitat Areas of Particular Concern (HAPCs), 2010

Introduction

Habitat Areas of Particular Concern (HAPCs) are geographic sites that fall within the distribution of EFH for the Council's managed species. Essential fish habitat is designated for the managed species identified in the Council's six Fishery Management Plans (BSAI and GOA groundfish, BSAI crab, Scallop, and Salmon, Arctic management area). The Council has a formalized process, identified in the FMPs, for selecting HAPCs. Under this process, the Council will periodically consider whether to set priority habitat types. This action initiates a Council call for proposals for candidate areas to be identified as HAPC, which meet the specific, priority habitat types. The sites proposed under this process are then sent to the Council Plan Teams for scientific review, to determine whether they have ecological merit, and are also reviewed for socioeconomic and management and enforcement impacts. This combined information is presented to the SSC, the AP, and the Council, and the Council may choose to select various HAPC proposals for further analysis and implementation.

Steps in the HAPC process	Draft Timeline
Council sets HAPC priorities	April 2010
Prepare and issue call for proposals; proposal period open	April-August 16 (16 weeks)
Initial screening of proposals for adherence to priorities; Council selects proposals to go forward for review	October 2010
Socioeconomic and enforcement review of proposals by staff	October-November
Plan Teams joint meeting to review of proposals for ecological merit	January 2011
Council decision on whether to formulate proposals into an amendment analysis	February 2011
Initial review of amendment analysis	April 2011
Final action on amendment analysis	June 2011

This current notice constitutes a Request for Proposals for candidate areas to be considered as HAPCs. Proposals must meet the criteria identified in the section below. All Federal, State, private, and foreign organizations or members of the public are eligible to submit proposals. **Proposals are due August 16, 2010.**

Criteria

HAPCs are areas within essential fish habitat (EFH) that may require additional protection from adverse effects. The EFH guidelines [50 CFR 600.815(a)(8)] provide four considerations for identifying HAPCs:

1. The importance of the ecological function provided by the habitat.
2. The extent to which the habitat is sensitive to human-induced environmental degradation.
3. Whether, and to what extent, development activities are, or will be, stressing the habitat type.
4. The rarity of the habitat type.

The Council will consider specific sites occurring within EFH as HAPCs if they meet the rarity criterion identified above, as well as at least one other of the HAPC considerations.

North Pacific Fishery Management Council, 605 W 4th Ave, Suite 306, Anchorage, AK 99501
Tel: (907) 271-2809, Fax: (907) 271-2817, www.alaskafisheries.noaa.gov/npfmc

Additionally, proposals must meet one of the Council's identified priorities for this proposal cycle.

[INSERT HERE THE PRIORITIES IDENTIFIED BY COUNCIL]

Proposal application procedures

All applicants should complete the application included in this package. If you need further information, please contact the Council office by phone at (907) 271-2809, or by email to _____.

Proposals must be submitted to the Council office by mail or fax. Proposals will be accepted until **5 p.m. Alaska time on August 16, 2010**. Proposals must follow the guidelines and criteria specified in this document.

Proposal review process

Initial screening of proposals. Council staff will screen proposals to determine consistency with Council priorities, HAPC criteria, and general adequacy. Staff will present a preliminary report of the screening results to the Council. The Council will determine which of the proposals will be forwarded for the next review step: scientific, socioeconomic, and enforcement review.

Scientific review of proposals by Council Fishery Management Plan Teams. The Council will refer selected proposals to the plan teams, who will evaluate the proposals for ecological merit. The reviewers rate the proposals using the evaluation criteria identified in Appendix 1 to this proposal package. There will always be some level of scientific uncertainty in the design of proposed HAPCs and how they meet their stated goals and objectives. The review panels may highlight available science and information gaps that may have been overlooked or are not available to the submitter of the HAPC proposal.

Review of proposals for socioeconomic and management and enforcement considerations. Proposals will be reviewed by Council or agency economists for socioeconomic impact. The Magnuson-Stevens Act states that EFH measures are to minimize impacts on EFH "to the extent practicable," thus, socioeconomic considerations have to be balanced against expected ecological benefits at the earliest point in the development of measures. Management and enforcement will also provide input during the review to evaluate general management cost and enforceability of individual proposals.

Council decision on whether to proceed with proposed amendments. The Council will select which proposal or proposals will go forward for analysis for possible HAPC designation. The Council may modify the proposed HAPC sites and management measures.

Resources available to the applicant

[NEED TO FILL IN WEBSITES, OTHER SOURCES OF INFO]

NOAA charts	
Habitat distribution	Maps of essential fish habitat for managed species, Sediment maps for Alaska,
Gear effects on habitat	Chapter __ of EFH EIS,
Fishery distribution	All gear types, 1998-2002 – chapter __ of EFH EIS, Trawl gear, 1993-2007 – Chapter 10 of EFH 5-year review,
Economic data	Economic SAFE report,

HAPC PROPOSAL APPLICATION

All text in italics is for instruction only, and should be deleted in the final proposal.

1 Proposer information

Name:
Address:
Affiliation:

2 Proposal Summary

Title:
Summary: *Single, brief paragraph concisely describing the proposed action*
What habitat is the proposed area intended to protect?:
What FMP species is the proposed area intended to protect?:

3 Geographic delineation of the proposed HAPC

Include latitude and longitude reference points and delineation on an appropriately-scaled NOAA chart.

4 Responsiveness to HAPC considerations and Council priorities

Identify how the proposed HAPC addresses the four considerations set out in the EFH guidelines, and the Council's priority habitat types for the 2010 proposal process..

5 Purpose and objectives

Purpose and need:

Specific objectives for proposal:

Methods to measure progress toward those objectives:

6 Proposed management measures, if appropriate

Proposed management measures to meet objectives:

7 Effects

Expected benefits of the proposed HAPC to FMP species:

Identification of fisheries, sectors, stakeholders, and communities who would be affected by the establishment of the proposed HAPC:

8 Supporting information

Please provide the best available information and/or sources of information to support the objectives of the proposed HAPC and discussion of the expected effects of implementing the proposal, including socioeconomic costs if possible.

[redacted]

North Pacific Fisheries Management Council
ATTN: Chris Oliver, Executive Director
605 W. 4th Avenue, Suite 306
Anchorage, AK 99501-2252

February 19th, 2010

Re: HAPC criteria and designation in the Bering Sea

Dear Executive Director Oliver,

My name is Miles Johnson. I am writing to the council as a sport fisherman and concerned citizen. I grew up on the Oregon Coast and I have lived all over the Pacific Northwest and in Southeast Alaska. I have been a member of several environmental groups, and an employee of various federal, state and tribal fisheries agencies. Currently, I am a law student. For the purposes of this letter, I am not affiliated with any group or agency.

Last weekend, I had the opportunity to attend parts of the Council's meeting in Portland, Oregon. I thank you for providing this forum for public observation and participation. Unfortunately, because of the fluidity of the Council's meeting agenda, I was unable to attend any of the three sessions where HAPC issues was discussed. Please accept and consider these comments regarding the Council's criteria for designating HAPCs. Additionally, please designate the Zhemchug and Pribilof Canyons in the Bering Sea as HAPCs, as a first step towards further protection for these amazing habitats.

I. The Council should consider HAPC designations inside "core fishing areas."

The *EFH and HAPC 5-year Review Draft* (Sec. 12.1) discusses the nomination and selection process for HAPCs. In the past, the Council's calls for HAPC proposals were qualified by the requirement that any proposed HAPCs must be located outside of "core fishing areas." For the following reasons, the Council should begin considering and designating HAPCs inside of "core fishing areas."

Designating HAPC's only outside of "core fishing areas" will not fulfill the purposes of HAPC designation. According to the *EFH and HAPC 5-year Review Draft* (Sec. 12), "HAPCs are areas...that may require *additional protection from adverse effects*." (emphasis mine). Because the purpose of HAPC designation is to recognize and protect certain areas from adverse effects—like destructive fishing and development practices—it is arbitrary and illogical to limit HAPC designation to areas where no adverse effects occur. Including this counterproductive requirement in the HAPC designation process defeats the very purposes for which HAPCs are created.

The Council's requirement that proposed HAPCs be located outside of "core fishing areas" is apparently an expansion of the Council's interpretation of the 3rd consideration for HAPC designation: "Whether, and to what extent, development activities are, or will be, stressing the habitat type." 50 CFR 600.815(a)(8). The Council errors grossly in its interpretation of Consideration 3, and therefore the "outside core fishing areas" requirement is without justification. Inexplicably, the Council has interpreted Consideration 3 to mean that the *more* serious the potential or actual stress to a habitat, the *less* deserving that habitat is of HAPC designation or protection. The proper interpretation of Consideration 3 is that the *more* stressed a habitat is (or is likely to become), the *more* that habitat requires HAPC recognition and protection. As explained above, the objective of HAPC designation is to identify and protect areas that "require additional protection from adverse effects." The Council's perverse interpretation of Consideration 3 has the opposite effect: the more a habitat "requires additional protection from adverse effects" (i.e. is stressed), the less eligible for identification and protection that habitat becomes. This counterproductive interpretation of Consideration 3 must be abandoned, and with it the idea that HAPCs can only exist outside of "core fishing areas."

50 CFR 600.815(a)(8) states that "FMPs should identify...HAPCs based on one or more" of the four considerations. By precluding HAPC proposal and designation inside "core fishing areas," the Council has unilaterally added another Consideration to the list of four promulgated by 50 CFR 600.815(a)(8). Creating a *de facto* fifth consideration marginalizes the careful scientific deliberation and the public comment process that led to the adoption of the four considerations for HAPC designation articulated in 50 CFR 600.815(a)(8). Moreover, 50 CFR 600.815(a)(8) expressly limits the basis on which HAPC designation can be made to the four articulated considerations. Therefore, it is arbitrary and illegal for the Council to make decisions about HAPC designation based on any other criteria.

II. Please protect Zhemchug and Pribilof Canyons.

At the recent Council meeting in Portland, much public comment was taken relating to the ecological significance and the need to protect the Zhemchug and Pribilof Canyons in the Bering Sea. Ultimately, these unique habitats deserve incorporation into the National Marine Sanctuary System. I recognize that the Council does not have the direct authority to create National Marine Sanctuaries. However, it is highly unlikely that any marine sanctuary would ever be created in the Bering Sea without the Council's support. Please keep an open mind to the possibility of preserving these unique habitats as National Marine Sanctuaries.

As a first step to recognizing and preserving these unique environments, the Council should designate the Zhemchug and Pribilof Canyons as HAPCs. The four considerations for evaluating HAPCs articulated in 50 CFR 600.815(a)(8) all favor designating the Zhemchug and Pribilof Canyons as HAPCs:

1. The importance of the ecological function provided by the habitat.

The Canyons' complex bottom topography and coral gardens provide high-quality rearing habitat for juvenile groundfish. Some of these groundfish species, especially Pollock, are a critical link in the Bering Sea food-chain. This food-chain supports a great diversity of fish, bird, and marine mammal species and is one of the reasons that the Bering Sea is considered to be among the most productive marine environments on Earth. The ecological benefit of these Canyons includes, but is not limited to, providing suitable rearing habitat for the fish species that are the backbone of the surrounding ecosystem. Losing the ecological function of these habitats would be detrimental to the entire Bering Sea ecosystem and its many fisheries.

2. The extent to which the habitat is sensitive to human-induced environmental degradation.

Coldwater coral and sponge gardens are fragile habitats, easily destroyed when fishing gear contacts the sea floor. Additionally, these habitats are extremely slow to regenerate and recover their ecological function. The *EFH and HAPC 5-year Review Draft* (Sec. 10.1.6) stated that for corals on hard substrate "even relatively low fishing intensities still eventually reduced corals to very low levels..." Studies indicates that many coral and sponge species take between 10 and 20 years to recover, while some species can take a century or more. Given the susceptibility of these habitats to degradation and their slow recovery time, these Canyons fall within the meaning of 'sensitive' in Consideration 2.

3. To what extent, development activities are, or will be, stressing the habitat type.

While small portions of these Canyons are protected from non-pelagic trawling by the Bering Sea HCA, most of the Canyons are still open to non-pelagic trawling. Clearly, non-pelagic trawling is a serious stress on coral and sponge communities. Additionally, the *EFH and HAPC 5-year Review Draft* (Sec. 10.1.6) noted that long-line and pot fisheries also caused substantial damage to coral communities. Finally, pelagic trawling also stresses benthic fauna. Because coral and sponge habitat regenerates slowly, even sporadic, incidental bottom contact from pelagic trawl gear has cumulative and lasting impact on this habitat type. The impacts of these fishing practices stress the physical and ecological structure of this habitat type.

4. The rarity of the habitat type.

These Canyons are among the largest and most impressive topographic features on the planet. Their unique benthic fauna was documented by a 2007 scientific expedition by NOAA and Greenpeace. The expedition found many coral species that were not previously known to exist in the Bering Sea and discovered one species completely new to science. These Canyons are the most impressive examples of Bering Sea shelf break habitat. No other areas combine the

bottom topography, rich benthic faunal communities, and groundfish rearing values found in these Canyons.

For these reasons, the Council should designate the Zhemchug and Pribilof Canyons as HAPCs and consider them for incorporation into the National Marine Sanctuary System.

Sincerely,

Miles Johnson
4311 SE 29th Ave.
Portland, OR 97202

541 - 272 - 0027
miles.b.johnson@gmil.com

Marine Conservation Alliance

promoting sustainable fisheries to feed the world

431 N. Franklin St. Ste 305
Juneau, AK 99801
(907) 523-0731
(206) 260-3639 fax

March 26, 2010

Eric Olson, Chairman
North Pacific Fishery Management Council
605 West 4th Ave, Ste 306
Anchorage, AK 99501

Dear Chairman Olson,

The Marine Conservation Alliance (MCA) is writing in regards to April Agenda Items D-4 (a) and (b), the EFH five year review and HAPC criteria and priorities.

MCA is a coalition of harvesters, processors, communities, and support service companies involved with Alaska's groundfish and shellfish fisheries. MCA has a long record of supporting Council actions to identify and protect Essential Fish Habitat (EFH) and related Habitat Areas of Particular Concern (HAPC).

In keeping with the EFH Final Rule, and the Council's excellent record for identifying and taking appropriate proactive actions to protect EFH for managed species, MCA believes that it is appropriate that the Council has initiated a review process to determine if further work on EFH is warranted. While we have not had the chance to examine the summary report that details the findings of this review, we believe that it is important for the Council to keep in mind the dramatic and precautionary steps the Council has already taken to identify EFH and mitigate the impacts of fishing on those habitats. In rough numbers, approximately 450,000 square nautical miles have been closed off Alaska's coasts to address habitat concerns of one form or another. If we add in the Arctic, which is closed to all commercial fishing, that number jumps to over 600,000 square nautical miles which is an area five times larger than the entire United States National Park system.

In addition to fishery closures, the Council has implemented a number of additional management measures to protect habitat such as gear restrictions, or requiring the use of gear modified to reduce impacts to bottom habitat. All of these measures come with a cost to industry and coastal communities, but the Council has been able so far to develop EFH measures that protect habitats and still allow for robust fisheries. This is a record the Council can be proud of. We urge the Council to keep this record in mind when considering whether or not broad new EFH actions are warranted in the waters off Alaska.

With regards to Agenda Item D-4 (b), HAPC criteria and priorities, MCA encourages the Council to develop a set of clear and specific priorities and evaluation criteria for HAPC proposals. Under the Final Rule for EFH, HAPC are

a ***discretionary tool*** that Councils can use to address specific habitat concerns for managed species. When the North Pacific Fishery Management Council first established its HAPC process, the Council adopted a site-based approach to HAPC designation. This means that HAPCs are to be specific, discrete geographic sites known to have habitat features meeting the Council's HAPC priority for a given HAPC RFP process. The Council very deliberately chose this approach in lieu of a more general "type" based HAPC process, believing instead that broader "type" based habitat concerns would be addressed as EFH, not HAPC.

When identifying HAPC priorities, MCA recommends the Council consider narrowing the scope to one or two priority habitats. The first time around, the Council priority lacked sufficient precision and a very large volume of proposals were received that only vaguely fit the Council's priority. This made analysis and evaluation a very difficult task and MCA believes that the public, and the process, would benefit from a more surgical approach. The RFP should also be very clear that proposals that do not fit within the Council's identified priority for managed species will not be considered.

MCA also strongly recommends that the Council retain the two criteria rule whereby a HAPC proposal must meet the "rarity" test with a high ranking for at least one additional criterion. Under this rule, if a proposal does not meet the "rarity" test it is not considered further. MCA suggests that rarity should be clarified to mean areas that are discrete sites of limited geographic scope encompassing a unique habitat that occurs in only one region off the Alaska coast. This would also mean that in order to be considered, the proposed site would need to score a "3" under the SSCs proposed evaluation criteria for rarity and at least one other factor.

MCA notes that the evaluation criteria matrix proposed by the SSC may receive additional commentary from the SSC at this upcoming meeting. We therefore will await any further SSC work before commenting further, except to note two general concerns. The first is that the ecological importance criterion in the SSC's draft proposal ranking matrix is largely a restatement of the broad criteria for EFH and hence is too generic for HAPC. Under the current draft language, the highest ranking for ecological function would be given merely for complex condition or substrate that serves as refugia, concentrates prey, or is known to be important for spawning. As we know from the last round of EFH designation, expansive areas in Alaska would meet that definition, thus frustrating the effort to focus the HAPC process by identifying specific, geographically discrete candidate sites.

We have a similar concern with the addition of "pelagic waters important to managed species" in footnote 1 of the SSC document entitled *Proposed NPFMC evaluation criteria for HAPC proposals.* MCA believes this language is inappropriate for HAPC, and suffers from the problems with the original EFH determinations made years ago. There is no doubt that pelagic waters are important to managed species. The problem is that this is so broad as to be virtually meaningless. All waters, including pelagic waters, are important to managed species. As with the ecological criteria discussed above, MCA is concerned this could lead the public into submitting proposals for virtually the entire Alaska EEZ, which we believe is counter to the Council's intent for HAPC.

Thank you for considering these preliminary comments on the EFH and HAPC agenda items for the upcoming Council meeting.

Sincerely,

David Benton
Executive Director

Pribilof Islands Stewardship Program
P.O. Box 938
St. George Island, AK 99591
907-859-2257

Date: 29 March 2010

To: North Pacific Fishery Management Council
605 West 4th, Suite 306,
Anchorage, Alaska 99501-2252

Re: NPFMC April 2010
Agenda Item D-4 (b) HAPC Criteria and Priorities; D-4 (a) EFH 5-year Review; D-1 (b) Preliminary Review of Pribilof BKC rebuilding plan

Dear Council Members:

I would first like to reiterate what I stated in my last letter (12 February 2010) regarding the HAPC Criteria and EFH. Comments on Pribilof King Crab Rebuilding are also included from a habitat protection perspective.

Agenda Item D-4 (b) HAPC Criteria and Priorities
Distracting potentially meaningful discussions on canyons over semantics and questions such as "are they rare"? or, "are they unique" has stymied action for over a decade. **One glance at a chart of Alaska or of the entire planet will affirm that canyons are RARE. And, if industrial fishing, marine mammal foraging and seabird foraging are independently or jointly considered a proxy for "uniquely productive", the Bering Sea shelf edge canyons certainly stand out: they are UNIQUE. Canyons and the gyres they generate are targeted by all of these predators every year.**

Shelf edge submarine canyons are well-documented sites of enhanced biomass due to their unique shape and connections from deep to shallow environments, with unique ocean current mechanisms that lead to the concentration of prey items like krill. Canyons on the Bering Sea shelf edge seem to serve as conduits for funneling deep oceanic forage species like myctophids and large copepods onto the shelf environment. Recognizing the uniquely productive properties of canyons, many countries globally and many states nationally have protected undersea canyons from fishing and non-fishing threats. Despite over ten years of testimony, proposals and recommendations by the Plan Teams, SSC, and the public; you - the Council have avoided taking action to fully analyze canyons under the directives of EFH or HAPC (see Council EFH committee and other records 1999 – present).

Delays in identifying acceptable "criteria" for meeting the EFH mandates in the MSFCA has likely had irreversible repercussions to canyon habitats. How many more trawls have eviscerated canyon water column and seabed depths in the decade over which the NPFMC has contemplated alternate management measures for canyons? Meanwhile, by-catch has skyrocketed, Pollock has plummeted and declines in seabirds, fur seals and sea lions at the Pribilof Islands continue at an alarming rate. Both the physical modeling of ocean currents, information on movement of plankton, foraging routes of mammals and birds and other data document that connections to the canyon are essential for the well-being of the Pribilof shallow water complexes. Severing this linkage through allowing continued high-intensity trawling and other industrial fishing on the shelf edge between the canyon and adjacent shallows is not unlike severing the umbilical connection from fertile canyon depths to shallow nourishing waters surrounding the Pribilof Island nesting, pupping habitats, and juvenile crab nurseries.

Rather than leave canyons strictly to a HAPC long term discussion, it may be more prudent to consider an FMP level EFH amendment to analyze whether ALL canyons, like ALL seamounts in the past, merit special consideration for protection from fishing and other threats. I propose that the NPFMC undertake analysis of an FMP-level amendment addressing all canyons in the Alaskan EEZ immediately.

The well documented skate nurseries identified by NOAA and other researchers harbor many species of these long-lived elasmobranchs, including adults, baby skates and extensive egg case deposition areas. Work at the Alaska Sea Life Center has documented that some species require at least three years just for embryonic development! How many egg cases have been disturbed or redistributed to less favorable habitats during these years of posturing at the Council?

I agree with the SSC requests that "the footnoted definition of habitat that accompanies the revised criteria be extended to include the water column as well as the seafloor substrate." I also agree with the SSC's comment, from the February meeting, about the importance of "research to improve our understanding of EFH for squid and for forage fish." Forage fish and squid, a major forage species, play a major ecological role in the Bering Sea ecosystem as primary "currency" for the transfer of energy from secondary producers to marine mammals and seabirds. Although EFH was identified for these species groups, no explicit management or mitigation measure has been undertaken to minimize effects of fishing or other activity on this critical suite of organisms.

RECOMMENDATIONS

1. Include data on species assemblages in forage fish category and squid category – it may be more appropriate to include EFH information on the emerging "Ecosystem Category" species being contemplated. Indicate what FMP and non-FMP species in the GOA-BSAI consume those forage species. Characterize trophic position as best possible to clarify role in foodweb. Provide species-specific distributional maps – whether complete or incomplete.
2. Provide full profile by species by fine scale area by fishery showing what forage and squid species are harvested incidentally as by-catch.

3. Identify multi-species forage fish and squid "hotspots" based on distribution and by-catch data.
4. Craft an FMP amendment package advancing measures which protect forage species in hotspots from seabed to sea surface from effects of fishing and non-fishing activities.
5. Immediately craft an FMP-level amendment addressing ALL canyons in the Alaskan EEZ as HAPC and consider appropriate measures to mitigate the impacts of fishing on canyon habitats.

D-4 (a) EFH 5-year Review
Human Humility and Responsibility

Despite some efforts to map EFH and protect some features in the EEZ, it is imperative that we recognize that Alaska is but one region within the global ocean – with an ecosystem in a fluid, multidimensional realm flowing over a tapestry of physical seabed features. It is even more complex than the terrestrial environment – where many early efforts to "protect" large predators and other creatures from extinction involved establishing small parks and refuges that comprised only a tiny fraction of the animals' home ranges. Isolating sections of habitat from the connectivity among species and adjacent habitats led rapidly to the demise of most of the very species (Tigers, gorillas, pandas, etc) people sought to protect. The degree of habitat fragmentation and ecosystem unraveling that has occurred in terrestrial environment is now taking place in aquatic systems globally. I would therefore urge the Council to consider that:

- EFH includes physical locations important to FMP species and their prey – even if the organisms do not occupy the benthos for their entire life history.
- Both motile species and their prey depend upon more than the physical seabed under laying their distribution – they are connected to the system in which they live through benthic-pelagic coupling processes, vertical movement of species within the water column, and species interrelationships we may not yet fully understand.
- Marine spatial management measures considered under EFH and HAPC should acknowledge the full definitions with the MSFCMA and provide adequate spatial buffers around physical habitats and the associated water column to better provide for comprehensive protection of the ecological functions those habitats provide for FMP species and their prey.

RECOMMENDATIONS

1. Dedicate staff time and request research assistance from NOAA to address items #1 and #2 on the "Immediate Concerns" Habitat list beginning on page 69 of the EFH 5-year review as soon as possible:
    a. Evaluate habitats of particular concern:
        i. Assess whether Bering Sea canyons are habitats of particular concern, by assessing the distribution and prevalence of coral and sponge habitat, and comparing marine communities within and above the canyon areas, including mid-level and apex predators

(such as, short-tailed albatrosses) to neighboring shelf/slope ecosystems.

ii. Assess the extent, distribution, and abundance of important skate nursery areas in the EBS, to evaluate the need for designation of new HAPCs.

2. Dedicate staff time to address items listed in section II: Habitat Mapping and (research on) ecological function.
3. Initiate an FMP level amendment addressing ALL canyons in the Alaskan EEZ as multispecies EFH and consider appropriate measures to mitigate the impacts of fishing on canyon habitats.

D-1 (b) Preliminary Review of Pribilof BKC rebuilding plan: habitat considerations
The Pribilof Island Habitat Conservation Area (PIHCA) is considered by many a *de facto* EFH protection measure, and is often referred to as such by NOAA and NPFMC staff. Effectiveness of this measure in meeting the goals for which it was established should be analyzed. If the area and the fishing restrictions within the PIHCA were designed using the best available science to protect king crab and other species, **it appears as the "best" science isn't good enough**. Could it be that protecting only the shelf without protecting the corridor connecting it to the deep sea that feeds it is in fact contributing to habitat fragmentation without achieving alleged goals of the action? In the case of king crab, for example, there has been no detectable recovery of Pribilof blue king crab and no significant increase in red king crab in the PIHCA since established in 1995. And now, we realize that this region is important for struggling opilio species as well.

The 2007 submarine documentation showing juvenile king crab in Pribilof Canyon, plus bycatch information, pot surveys and trawl surveys provide ample evidence that adult and juvenile crab are distributed on the shelf and in deep canyon waters, and likely migrate to and from the Canyon depths to the shelf shallows. If the PIHCA included the shelf break and Canyon as was originally proposed, we may have seen a rebuilding of the BKC stock by now. **Bounds of the PIHCA should be reconsidered for both crab and other species habitat protection. In the mean time, we request that NOAA-NMFS and ADFG crab co-managers immediately consider reducing the footprint of government TRAWL SURVEYS in the PIHCA, at least in the nearshore regions important for juvenile crab.**

Since 2004 the St. George Traditional Council has been requesting for the Council and NMFS, with whom they co-manage northern fur seals and Steller sea lions, "that the 20 nautical protected zone around St. George Island haul-outs be reinstated so that it is comparable to other Alaskan haul-out sites used by similar numbers of Steller sea lions." In the January 2010 draft minutes from the Steller Sea Lion Mitigation Committee Meeting on page 3 it is reported: "At Dalnoi Point on St. George (EBS), scat samples collected in June 2009 found 80% frequency of occurrence of Pollock, all >40 cm in length (commercial size). This is just further evidence of the importance of extending the PIHCA to include the self-break south of St. George and to include the Pribilof Canyon to protect the forage base for Steller sea lions, as well as fur seals, birds and other species.

Pribilof Islands Habitat Conservation Zone

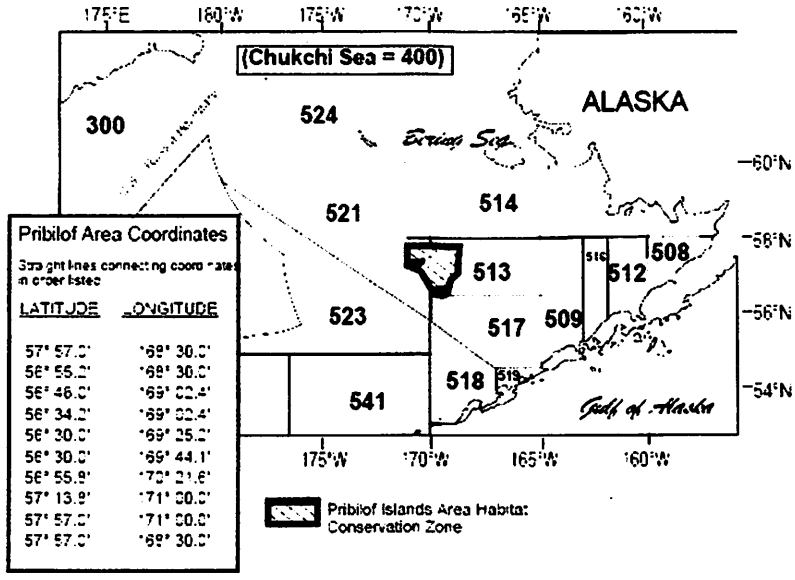
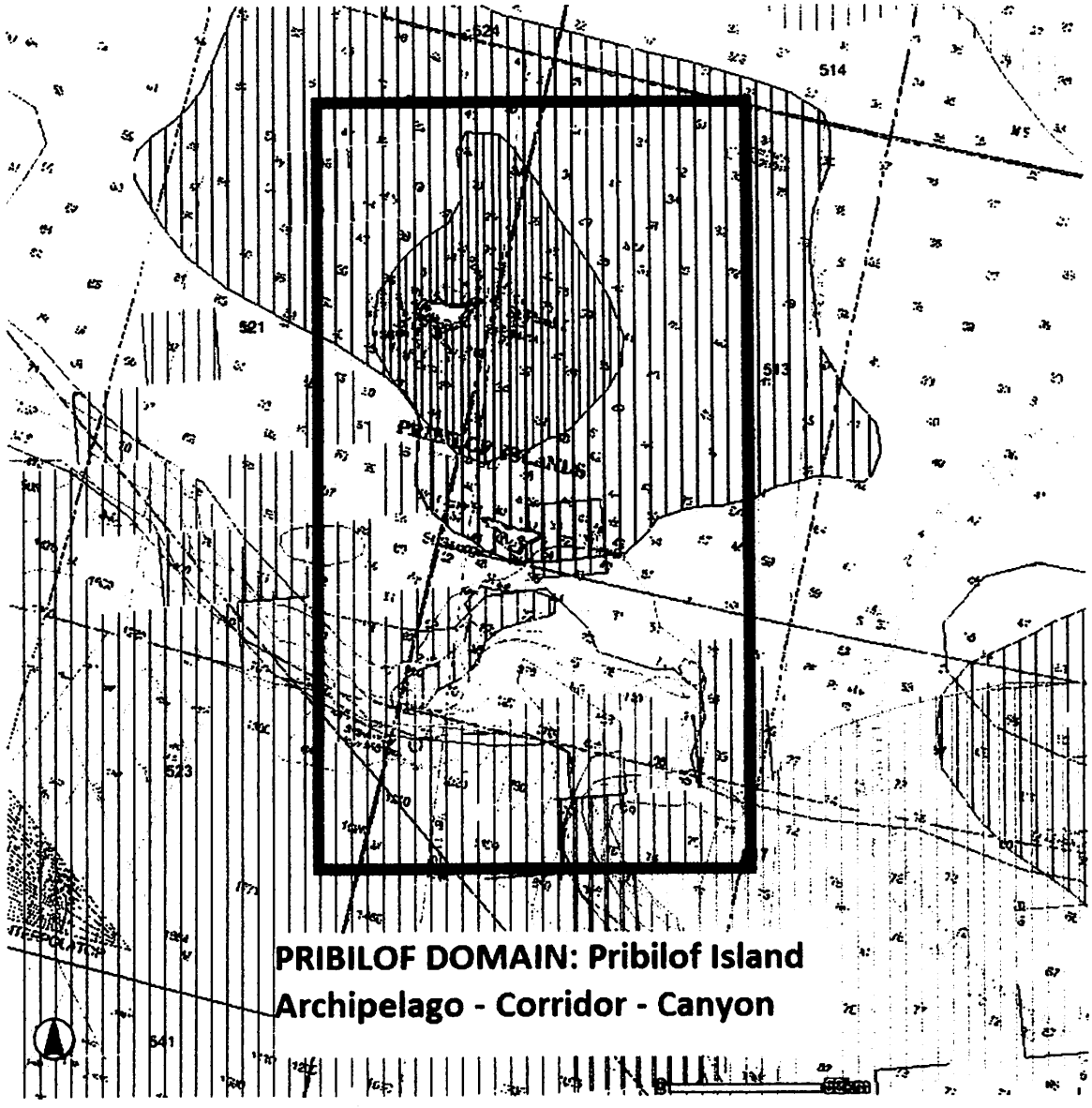


Figure 4.1.11 Part 679. Pribilof Islands Area Habitat Conservation Zone in the Bering Sea

Pribilof Domain

According to the NOAA-NMFS online EFH database (http://mapping.fakr.noaa.gov/Website/EFH/viewer.htm?simple) over over 32 FMP species have EFH identified within the Pribilof Domain ... that area encompassing the Pribilof Island archipelago, corridor to the canyon, and Pribilof Canyon. Many important habitat-forming biota occur on the seafloor in this region, including sea whip beds important for Pacific Ocean Perch (Brodeur et al 1997), sponges and deep water corals (Ridgway, Stone, Hocevar, et al 2007). It is time to recognize it as an ecological corridor and to protect it from further destruction.

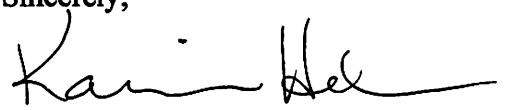


RECOMMENDATION

1. Provide analysis of PIHCA efficacy in meeting its purpose for establishment – using EFH criteria for mitigation measures may be appropriate since it is in EFH and considered an EFH protection measure. Is it working? If not meeting objectives, consider requesting staff to develop an EFH amendment which addresses forage fish and extending the PIHCA to encompass the shelf edge off St. George island and Pribilof Canyon – thereby reconnecting an ecological corridor which will likely provide more comprehensive protection from the habitats and species associated with the Pribilof Island region.

Thank you for your consideration of my comments. Best wishes in your endeavor to mitigate human impacts to our marine habitat.

Sincerely,



Karin Holser
Pribilof Islands Stewardship Program

cc. Dr. Anne Hollowed, NOAA-NMFS, NPFMC SSC
Dr. Douglas Demaster, Director, Alaska Fisheries Science Center
Dr. James Balsiger, Alaska Regional Administrator, NOAA-NMFS
Dr. Jane Lubchenco, Under Secretary of Commerce for Oceans and Atmosphere
Pat Montanio, Director, NOAA Habitat Division
Dr. Eric Schwaab, Assistant Administrator for Fisheries, NOAA
Matthew Eagleton, NOAA-NMFS Habitat Division, Alaska Region
Dr. Joe Uravitch, Executive Director, Marine Protected Areas FAC
Dr. Thomas Hourigan, Deep Sea Corals Program, NMFS
Kaya Brix, NOAA-NMFS, Director, Protected Resources Division
Phil Zavadil, St. Paul Eco-System Conservation Office
Chris Merculief, President, St. George Traditional Council

World Wildlife Fund
Kamchatka/Bering Sea Ecoregion
406 G. Street, Suite 303
Anchorage, AK 99501 USA

Tel: (907) 279-5504
Fax: (907) 279-5509

www.worldwildlife.org

March 30, 2010

Eric Olson, Chair
North Pacific Fishery Management Council
605 West 4th Street, Suite 306
Anchorage, AK 99501-2252

Dr. Jim Balsiger, Regional Administrator
NOAA Fisheries, Alaska Region
709 W. 9th Street
Juneau, AK 99802-1668

Re: Miscellaneous Issues D-4(a-b)

Dear Mr. Olson and Dr. Balsiger,

World Wildlife Fund (WWF) appreciates the opportunity to comment on the subject of Bering Sea Habitat Conservation. We submit this letter in support of moving forward with agenda item D-4(a) Bering Sea Essential Fish Habitat (EFH) 5-year review and D-4(b) for Habitat Areas of Particular Concern (HAPC) Priorities and Timing.

Agenda Item D-4(a) EFH 5-Year Review

WWF supports the North Pacific Fishery Management Council's (Council) current effort to review responsible and precautionary methods to ensure that sensitive marine habitats remain protected from adverse fishing impacts and to advance efforts toward Ecosystem Based Management. The Bering Sea is a unique, highly productive ecosystem that supports a broad diversity of fish and fishermen. It is also home to numerous whale species, Pacific walrus, Steller sea lions, and a variety of seals. Eighty million seabirds of 30 different species, the largest convergence in the world, feed in the Bering Sea every year. These non-fish species represent important components of the ecosystem that could be substantially affected by concentrated fishing effort in sensitive habitat areas. The relationship between these non-fish species, fish species, and the marine habitat remains relatively poorly understood and must be carefully studied and comprehensively assessed before we can hope to fully evaluate the impact of fishing-related actions on the ecosystem. Until such time that we are capable of fully evaluating the impacts, we must act in a precautionary manner to avoid unintended and potentially irreversible damage to the ecosystem that provides for so many, including fishermen.

Generally, WWF continues to support the development and implementation of a comprehensive and focused ecosystem research plan that includes long-term monitoring, habitat surveys, and baseline ecosystem research that supports EFH identification and designation. The Council prudently recommended similar measures when establishing the Arctic FMP, providing a template for how the Council should act regarding other habitat issues. Furthermore, WWF insists that EFH designation be considered in the context of its appropriate definition. Designation of EFH must start with identifying those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity. This initial assessment must drive the EFH designation process, not the presence or absence of current or historic fishing.

Furthermore, WWF recommends that the Council respect the observations and recommendations of its own Scientific and Statistical Committee (SSC) and address habitat concerns related to pelagic habitat, forage fish, and squid. "Waters" considered under the definition of EFH include

"aquatic areas and their associated physical, chemical and biological properties." Forage fish and squid represent what can be considered primary constituent elements as biological properties of waters considered as EFH. Furthermore, it is clearly understood that the presence of prey concentrated in pelagic habitat is in itself a characteristic of habitat suitability and can be "essential." Prey species are often concentrated by hydrographic features that define areas of pelagic habitat, such as the upwelling areas that occur in the Bering Sea canyon areas. For example, Bering Sea squid represent an important trophic species that aggregates in shelf edge pelagic habitat and canyons and, by their presence, define such habitat for other species. Concentration of squid bycatch in space and time presents a risk due to the unique life cycle of squid and raises concerns regarding forage availability of not only other managed fish species, but also of marine mammals such as the northern fur seal and Steller sea lion. Thus, WWF wishes to once again emphasize the importance of pelagic habitat, particularly as it relates to ecosystem management concepts and EFH.

The issue of forage availability remains particularly sensitive near the Pribilof Islands and the adjacent canyon areas. WWF regrets that the Council failed to include the Bering Sea canyons or even elements associated with the canyons in the previous EFH designation process. We strongly recommend that the Council consider the unique habitat contained in the Bering Sea canyons for analysis as EFH during this 5-year review. WWF remains concerned about the Zhemchug, Pribilof, and Pervenent Canyons and their importance to pelagic species such as squid, juvenile pollock, and deep-sea smelt, as well as all the upper trophic level species that depend on those pelagic forage species. As we have stated previously, existing information demonstrates that the Bering Sea canyons contain distinct benthic habitats such as high relief structures like pinnacles, boulders, and steep walls as well as biogenic habitats including corals, sponges, and sea whips. These specific habitats are known, among other things, to provide important refugia for juvenile fish and crabs. Additionally, the unique hydrographic features of the canyons form one of the principal bases for productivity in the Bering Sea ecosystem through nutrient upwelling and deposition. These characteristics warrant consideration of the canyons and their unique features within the context of EFH as the Council moves forward with its review.

Nonetheless, WWF also believes that the canyons and associated elements should not be the only habitat types considered within the 5-year review. All habitat types, once identified and delineated, should also be fully considered with respect to the impact of various fishing gears on those habitat types. For instance, the impacts of bottom trawling, pelagic trawls operated on the bottom, or other gear types known to impact benthic habitat should be considered carefully with respect to each potentially impacted habitat type consistent with current or historic fishing within the habitat area considered. Therefore, WWF believes that the relative impact of fishing gear types on different habitat types should be considered and carefully scrutinized specific to each habitat type, but should be considered subsequent to its identification as necessary to fish for spawning, breeding, feeding or growth to maturity.

Agenda Item D-4(b) Review HAPC priorities and timing

WWF supports the Council moving forward with HAPC priorities and timing concurrent with EFH review. As subsets of EFH that highlight specific habitat areas with extremely important ecological functions and/or areas that are especially vulnerable to human-induced degradation, it is logical that the Council would consider potential areas for designation concurrent with analysis and designation of EFH. Nonetheless, we wish to remind the Council that because HAPC is a "subset of EFH" focused on very specific habitat areas, it should not be considered a substitute for considering a habitat area as EFH.

WWF also recommends that the Council review the proposed HAPC evaluation criteria to ensure that all terms are explicitly defined such that the criteria are objective, transparent, and easily understood by the public. Reasonable people can disagree about the meaning of subjective terms

such as "little, frequent, minimal, and common" unless those terms are clearly defined using a measurable and objective baseline.

Conclusion

Essential Fish Habitat designation is about more than just protecting pretty corals or threatened and depleted species, it is about protecting the very essence of the profound productivity of the Bering Sea. The Bering Sea generates about 50% of the nation's seafood by volume and $1 billion annually that contributes to the economic health of Alaskan communities. As a public resource held in trust by the government for the people of the United States, the Council has a responsibility to ensure that the Bering Sea fisheries remain sustainable and productive long into the future. That starts with protecting the habitat that generates those important fishery resources.

Thank you for your time and consideration of these comments.

Respectfully,

Alfred Lee "Bubba" Cook Jr.
Kamchatka/Bering Sea Ecoregion Senior Fisheries Program Officer
World Wildlife Fund

PUBLIC TESTIMONY SIGN-UP SHEET

Agenda Item: D-4(a) EFH 5yr Review

	NAME *(PLEASE PRINT)*	TESTIFYING ON BEHALF OF:
1	Dave Benton	MCA
2	George Pletnikoff	Greenpeace
3	Arni Thomson	A.C.C.
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

D-3(c) Supple.
April 2010

March 25, 2010

Southern Norton Sound AC
Art C. Ivanoff, Chair
Box 49
Unalakleet, Alaska 99684
artcivanoff@hotmail.com

U.S. Department of Commerce
Office of the Secretary of Commerce
Att: The Honorable Gary Locke,
1401 Constitution Avenue, NW
Washington, DC 20230

RE: NORTHERN BERING SEA RESEARCH AREA

Dear Honorable Gary Locke:

Southern Norton Sound Fish and Game Advisory Committee serves the villages of Saint Michael, Stebbins, Koyuk, Shaktoolik and Unalakleet. On behalf of Southern Norton Sound Fish and Game Advisory Committee, we submit an appeal to end the effort to the industrialization of the ecosystems that we depend upon in the Northern Bering Sea. We diametrically oppose moving the line north of Saint Matthew Island for the purpose of expanding the range for the trawl fleet industry, into what is frequently referred to as; The Northern Bering Sea Research Area (NBSRA). Predominant sources of nutrition for these villages come from hunting, fishing and gathering, we are a hunting and fishing society. There are number of explanations for keeping NBSRA closed to industrial commercial fishing, perhaps the strongest rationale being the dependence on the ecosystem of the NBSRA for our livelihood. We have outlined below what we believe are significant grounds for such action.

There are nearly a hundred villages, more importantly; nearly a hundred *federally recognized tribes* that depend on the Bering Sea for marine mammals, migratory birds, five salmon species, and other non-salmon species of fish to carry on the cultural activity of hunting and fishing. While the methods to gather these essential sources have changed over time for the Alaska Native peoples, our world view of what it means to hunt and fish remains the same. We share within our community to families and extended families; we share and interact with families and friends to distribute the catch. Subsistence blends economics, social and spiritual disciplines into one activity, to harvest collectively. **It is important you understand what our definition of subsistence is and what subsistence really means to villages we serve, what it means to us.**

According to the Bering Strait Region Local and Traditional Knowledge Pilot Project; *A Comprehensive Subsistence Use Study of the Bering Strait Region*, Ahmasuk, A., Trigg, E., North Pacific Research Board, Kawerak, Incorporated, July 2007 a significant amount of wildlife renewable resources are consumed annually in eleven villages in the Norton Sound.

Table 11-2 of the Estimated Harvests, Estimated Pounds and Percent of Harvest by Resource, Twelve Communities Combined show;

1. **9,176 marine mammals are harvested with a total weight value of 3,062,395.3 lbs**
2. **437,917 non-salmon fish are harvested with a total weight value of 285,055.8 lbs**
3. **119,870 salmon are harvested with a total weight of 471,067.7 0 lbs**

These resources are the source of protein, iron and other sources of other minerals needed to sustain our lives. Pound for pound, if we used rates from the Alaska Commercial Company Store to compare the economic value of marine mammals to that of Round eye steak ($13.05/lb), the net value for marine alone **$39,964,258.** The combined economic value of non-salmon and salmon based on the cost per pound for Round eye steak is **$9,867,411.67**. The data reveals significant dependence on resources to sustain villages in the Norton Sound, which on its own merit, is an economy, a subsistence economy. The proposed expansion of the industrial fishing boundaries of the bottom trawl fleet has the potential to disrupt the very fabric that keeps the families together.

MAGNUSON-STEVENS ACT

Title III-National Fishery Management Program, Section 301. National Standards for Fishery Conservation and Management of the Magnuson-Stevens Fishery Conservation and Management Act epitomize and exemplifies the greatest threat to the coastal communities dependent on the oceans and rivers based on the insubstantial language that pertain "to the extent practicable" to minimize bycatch or minimize the mortality of such bycatch. By the very nature of the beast, bycatch did occur and will occur as it did in the Bering Sea Aleutian Islands in the Northern Bering Sea. The fact is; the Magnuson-Stevens Act is catering to one segment of the population with one agenda, industrial commercial fishing. The very effective methods of extraction used by the fishing industry, along with the current Magnuson-Stevens Act are a lethal combination that ensures overfishing.

A fundamental oversight with the Magnuson-Stevens Act is the lack of voting seats for federally recognized tribes on the North Pacific Fisheries Management Council, <u>we have no voice</u>. Federally recognized tribes are recognized in the United States Constitution, yet the governing bodies under your jurisdiction and management have abdicated your trust responsibilities to America's first people. The current structure of the North Pacific Fisheries Management Council and the National Marine Fisheries Service is incompatible with principles of self-determination as tribes wish to exercise a degree of sovereignty.

TRIBAL CONSULTATION

A calamity, despite good intentions by the National Marine Fisheries Service is the unsatisfactory consultation with federally recognized tribes in Alaska.

In fact, tribal consultation has been non-existent. Very few tribes have called for a direct one-on-one consultation process, and those that make the request are repeatedly told funding prohibits a direct dialogue.

We call on your office to stop the trawl fleet in the Northern Bering Sea until a satisfactory process is in place for the recognition of federally recognized tribes and their integral role in the decision-making process are established.

The Northern Bering Sea is home to one of the last untouched and unexploited ecosystems in the world with the Alaska Native culture thriving on the richness and abundance of the wildlife resources. We ask that your office intervene and stop the effort to expand the industrial commercial fisheries into the Northern Bering Sea. We ask with a profound understanding of the potential impact of the bottom trawling fleet, we ask for cultural and physical space to carry the essence of our being, overseeing the safe and sustainable harvest of our marine wildlife.

We appeal to you directly for reason and justice. We know the world's oceans are being plundered. Appeasement to industrial commercial fishing has been the official policy of our federal government, with little regard to impacts to local and small communities. We need a shift in our thought processes and policy to prevent rural Alaska villages from becoming pockets of true poverty.

Please contact our office if we can further assist you in understanding our concerns.

Sincerely,

Art C. Ivanoff
Chair
Southern Norton Sound AC

Cc: Senator Mark Begich
Senator Lisa Murkowski
Pat Pourchot, DOI
Senator Don Olson
Loretta Bullard, Kawerak
Myron Naneng, AVCP
Nelson Anagapak, AFN
Karen Gillis, Bering Sea Fishermen's Association

Council Checklist/Record Building Guidance for Final Action to Establish Annual Catch Limits in the Groundfish FMPs

The following comments are intended to assist the Council during its deliberations on certain aspects of this action and to aid the Council in developing the justification and rationale for its action. This is not intended to be an exhaustive list, but is merely intended to highlight a few points that the Council should address, and the Council is encouraged to address any and all aspects of its decision.

In general, the Council should explain why the establishment of annual catch limits, the separation of the "other species" category into its constituent parts for purposes of establishing such limits, the classification of "prohibited species" as "ecosystem component species" and the elimination of non-specified species from the FMP (i.e., Alternatives 2 or 3) is preferable to no action, or conversely why no action (i.e., Alternative 1) is preferable to either of the Action alternatives. In addition, the Council should explain why the classification of "forage fish" as an ecosystem component species (i.e., Alternative 2) is preferable to the inclusion of "forage fish" in the fishery (i.e., Alternative 3 or Alternative 1), or vice-versa.

The following **regulatory criteria** apply to classification of stocks as "ecosystem component" (EC) species (50 CFR 600.310(d)(5)):

(i) To be considered for possible classification as an EC species, the species should:

(A) Be a non-target species or non-target stock;
(B) Not be determined to be subject to overfishing, approaching an overfished condition, or overfished;
(C) Not likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and
(D) Not generally be retained for sale or personal use.

(ii) Occasional retention of the species would not, in and of itself, preclude consideration of the species under the EC classification. In addition to the general factors noted in paragraphs (d)(5)(i)(A)-(D) of this section, it is important to consider whether use of the EC species classification in a given instance is consistent with MSA conservation and management requirements.

If the Council identifies Alternative 2 as its preferred alternative, it is important that the Council articulate a rationale for the following aspects of Alternative 2:

Alternative 2 would classify the "prohibited species" assemblage the "forage fish" assemblage as "ecosystem component" species. If the Council selects Alternative 2 as its preferred alternative, it should articulate a rationale that will support this classification in reference to the above criteria. In taking such action, it would be helpful for the Council to address the following issues: 1) the likelihood that the stocks may become subject to overfishing or overfished in the absence of conservation and management measures; 2) the rationale that the species are not generally retained for sale or personal use; 3) whether existing (and continued) management of forage fish (i.e., prohibition against targeting forage fish, retention limits, and restrictions on sale and processing) is consistent with the Magnuson Act's

conservation and management requirements; and 4) the rationale for classifying "prohibited species" as "ecosystem component" species. Some key points to make with respect to each of these issues are addressed below. Again, please note that this is not an all-inclusive list.

1) **Forage fish** are not likely to become subject to overfishing or overfished in the absence of conservation and management measures.
   - Dr. Spencer and Dr. Ormseth with the Alaska Fisheries Science Center completed a "vulnerability analysis" for a subset of forage fish stocks for which there is sufficient available information to reliably assess productivity and susceptibility to the groundfish fishery (Capelin and eulachon were included in this analysis). Due to the relatively high productivity of these stocks and their relatively low susceptibility to the fishery, the analysis concludes that these stocks are not likely to become subject to overfishing. (EA at 30)
   - In addition, the forage fish species will be subject to conservation and management measures as explained in 2) below, which would continue to apply even with the group placed in the ecosystem component category.

2) **Forage fish** are not generally retained for sale or personal use in the groundfish fisheries.
   - Existing regulations prohibit participants in the groundfish fisheries from directed fishing for forage fish. 50 CFR 679.20(i)(3).
   - Existing regulations limit the retention of forage fish to no more than 2% of the weight of retained target species.
   - Existing regulations also restrict the sale, barter or trade of forage fish. 50 C.F.R. 679.20(i)(5).

3) It is appropriate to continue with existing efforts to conserve and manage **forage fish** given their classification as ecosystem component species.
   - The Council should generally address the role of forage fish in the ecosystem and the importance of conserving forage fish stocks in order to benefit the target stocks and other species in the marine environment dependent on forage fish (e. g., marine mammals and seabirds).
   - For example, the Council might note that forage fish are preyed upon by many species that are targeted by the groundfish fishery. According to the FMPs, juvenile pollock, pacific cod and many other species prey on euphausiids, such as krill, for example (BSAI Groundfish FMP at D-14 & D-17). The conservation of forage fish populations is, therefore, important to the health and productivity of the ecosystem in the Bering Sea, Aleutian Islands, and Gulf of Alaska, and to the health and productivity of the target stocks. Measures that limit the fishing mortality and incidental catch of forage fish benefit the target stocks and their habitat, and are appropriate for the conservation and management of the target stocks in the fishery.
   - Forage fish provide a critical component of the food web for marine mammals and seabirds and their conservation is important to these non-fish species. Conservation and management of forage fish species is an important aspect of ecosystem-based management used by the Council for the Alaska groundfish fisheries.

4) **Prohibited Species** are not generally retained for sale or personal use in the groundfish fishery and are not likely to be subject to overfishing or to become overfished in the absence of conservation and management measures.
    - Retention of prohibited species by the groundfish fleet is prohibited by regulation, with limited exceptions. 50 CFR 679.21(b)
    - Prohibited species for which there are fisheries in federal waters (crab, salmon, halibut) are primarily managed under other authorities (Crab FMP, Salmon FMP & IPHC) that would suffice to prevent overfishing, without the need for any new conservation and management measures under the Groundfish FMPs. It is appropriate to continue to establish harvest limits for these species in their respective FMPs.