

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME 1 HOUR

DATE: March 24, 2009

SUBJECT: Other groundfish issues

ACTION REQUIRED

- (a) Review and approve Halibut Sorting EFP
- (b) Review HAPC evaluation criteria and EFH 5-year review methodology (SSC only)

BACKGROUND

- (a) Review and approve Halibut Sorting EFP

An exempted fishing permit (EFP) application has been submitted by the Best Use Cooperative (BUC) to investigate on-deck sorting of Pacific halibut as a means of reducing halibut bycatch mortalities on Amendment 80 vessels. The EFP would allow three BUC non-pelagic trawl vessels to sort halibut removed from a codend on the deck, and release those fish back into the water after accounting for halibut condition. All groundfish and halibut harvested would be within the BUC's allocation for groundfish and halibut mortality. A letter to the Council chairman from Mr. Doug Mecum (NMFS AKR) regarding receipt of this application, AFSC's approval of the experimental design, and the EFP application itself, are attached as Item D-1(a)(1).

The first phase of the experiment would begin in mid-May, 2009, and continue until the end of June, 2009, when a sufficient number of halibut have been sampled and assessed for condition and likelihood of survival. Upon review and approval by NMFS, the second phase of the EFP may allow EFP participants to carry out additional groundfish fishing up to the BUC's allocation by applying any saved halibut mortality from EFP work. A representative of the applicant, Mr. John Gauvin, will be available to present a description of the experiment.

- (b) Review HAPC evaluation criteria and EFH 5-year review methodology (SSC only)

HAPC proposal evaluation criteria

Under the Council's existing Habitat Areas of Particular Concern identification process, the Council will periodically issue a call for proposals for candidate areas that focus on a specific priority habitat types to be identified as HAPC. The sites proposed under this process are then sent to the 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.

During the last HAPC proposal cycle, in 2003-2004, the Council received feedback from the public and the Plan Teams about the criteria used to evaluate the HAPC site proposals. It was noted that the review criteria had not been made available during the call for proposals, so that the proposers had no way of knowing the full range of information that would be required to rate their respective proposals. Additionally, some of the rating criteria were ambiguous, and because of this it was difficult for the Plan Teams to evaluate proposals in a consistent manner.

In 2004, the SSC was asked to review the rating criteria for evaluating HAPC proposals prior to releasing a new request for proposals (RFP) for candidate HAPC sites. The Council will be considering whether to set new HAPC priorities and initiate another HAPC proposal cycle in June 2009. The rating criteria that would be used to evaluate candidate sites should be established and listed as part of the RFP that would go out for HAPC proposals. Because the SSC might need two meetings to review and revise the HAPC criteria, this issue is on the agenda for the SSC in April 2009.

Attached as Item D-1(b)(1) is a background memorandum that summarizes existing guidance on HAPCs, and the Council's existing HAPC identification process, as well as specific concerns from the 2004 HAPC proposal cycle by the Joint Plan Teams and the SSC. The memorandum was mailed out to the SSC in mid-March. There are four criteria listed in the EFH final rule as considerations for HAPC:

- Importance of ecological function
- Sensitivity
- Stress
- Rarity

The criteria were defined for the 2004 proposal cycle as described on page 13 of the attachment. Some suggestions for revised definitions are provided on page 3 of the attachment.

EFH 5-year review methodology

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 required to be 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.

At this meeting, the SSC is scheduled to review the proposed methodology that will be used to complete the 5-year review requirement, and to provide feedback as appropriate. NMFS, Council, and ADFG staff members have been asked to prepare an initial evaluation of the FMPs' EFH text, for review by the Joint Crab and Groundfish Plan Teams at their September 2009 meeting¹. This evaluation, and the Plan Teams' recommendations, will be synthesized into a draft summary report which will be presented to the SSC, AP, and Council to review in December, 2009. At that time, the Council may choose to initiate FMP amendments, if any change to the EFH text in any of the FMPs is warranted. A detailed handout on the methodology and the schedule proposed for the review are attached as Item D-1(b)(2).

¹ The Scallop Plan Team review will not occur until February 2010. As there is no Salmon Plan Team, staff will consult with salmon experts for their recommendations.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

Item D-1(a)(1)
March/April 2009

AGENDA D-1(a)(1)
APRIL 2009

March 16, 2009

Eric Olson, Chairman
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, Alaska 99501

Re: Issuance of an Exempted Fishing Permit to reduce mortality of halibut in non-pelagic trawl fisheries.

Dear Chairman Olson:

NMFS received an application from Mr. John Gauvin on behalf of the Best Use Cooperative (BUC), for an exempted fishing permit (EFP), on March 16, 2009. We are providing the application to the U.S. Coast Guard and the North Pacific Fishery Management Council (Council), as required by 50 CFR 600.745(b)(3)(i) and 50 CFR 679.6(c)(2). This EFP could assess field practices to reduce halibut mortality in trawl fisheries for flatfish by evaluating various fishing and handling practices. NMFS has found the application complete and is initiating consultation with the Council. Issuance of EFPs is authorized by the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and its implementing regulations at 50 CFR 679.6, Exempted Fisheries.

The applicant developed the EFP in cooperation with NMFS staff. On March 9, 2009 the Alaska Fisheries Science Center (AFSC) approved the EFP scientific design, pending the completion of revisions by the applicant. The revised application is attached. The first phase of the study conducted under this EFP would begin in mid May 2009, and continue until the end of June 2009, when a sufficient number of halibut had been sampled and assessed for condition and likelihood of survival. The EFP would allow three BUC non-pelagic trawl vessels to sort halibut removed from a codend on the deck, and release those fish back to the water after accounting for halibut condition using International Pacific Halibut Commission (IPHC) halibut mortality assessment methods. Upon review and approval from NMFS, the second phase of the EFP may allow EFP participants to carry out additional groundfish fishing up to the BUC's allocation by applying any saved halibut mortality from EFP work. All groundfish and halibut harvested would be within the BUC's allocation for groundfish and halibut mortality.

This proposed action would exempt factory trawler vessels Ocean Peace, Constellation, and Cape Horn, from:

1. the prohibition to conduct any fishing when the fishery is closed due to reaching the limit for halibut Prohibited Species Catch (PSC) under § 679.7(a)(2);



2. the prohibition to bias the sampling procedure employed by an observer through sorting of catch before sampling, at § 679.7(g)(2);
3. the prohibition to exceed an amount of halibut cooperative quota (CQ) assigned to an Amendment 80 cooperative at § 679.7(o)(4)(v);
4. a requirement to weigh all catch by an Amendment 80 vessel on a NMFS-approved scale at § 679.27(j)(5)(ii);
5. the requirement for all catch to be made available for sampling at § 679.93(c)(1); and
6. the requirement for halibut to not be allowed on deck without an observer present at § 679.93(c)(5).

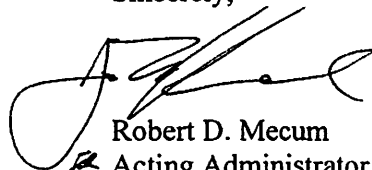
The EFP would apply for the period of time required to complete the project in 2009 in the BSAI Amendment 80 fishery.

After reviewing the proposed EFP in relation to NOAA Administrative Order (NAO) 216-6, including the criteria used to determine significance, NMFS has determined that the proposed EFP research would not have a significant effect on the human environment. Specifically, the proposed action qualifies for a Categorical Exclusion under section 6.03c.3(a) because it is a research program of limited size and magnitude with no effect on the environment beyond those already analyzed in the Alaska Groundfish Harvest Specifications Final Environmental Impact Statement (2007).

Under regulations at § 679.6, we have consulted with the AFSC, and have determined that the application contains all the information necessary to judge whether the proposal constitutes a valid fishing experiment appropriate for further consideration. We are initiating consultation with the Council by forwarding the application, as required by § 679.6 (a)(2). We understand that you have scheduled Council review of the proposed project during the Council's April 2009 meeting in anticipation of our review and determination that the application warrants further consideration and consultation with the Council.

Please notify Mr. John Gauvin of BUC, of your receipt of the application and invite him to appear before the Council during the April meeting in support of the application. We will publish a notice of receipt of the application in the Federal Register with a brief description of the proposal. Enclosed are copies of the application and the AFSC's memorandum of approval of the experimental design.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

Enclosures (2)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Alaska Fisheries Science Center
7600 Sand Point Way N.E.
Bldg. 4, F/AKC
Seattle, Washington 98115-0070

March 9, 2009

MEMORANDUM FOR: Robert D. Mecum
Acting Regional Administrator, Alaska Region

FROM: *William Kov*
Douglas P. DeMaster
Science and Research Director, Alaska Region

SUBJECT: Application for Exempted Fishing Permit (EFP) from Best Use Cooperative

AFSC staff has reviewed the attached Exempted Fishing Permit (EFP) application from the Best Use Cooperative (BUC). The BUC proposes an experiment to investigate on-deck sorting of halibut as a means of reducing halibut bycatch mortalities on Amendment 80 vessels. Because of the lengthy comments regarding this permit application, rather than attempt to summarize them in this letter, they are attached. We recommend approval of this application contingent upon the applicant adequately addressing the following concerns:

- 1) Clarify the role of ASFC; data collection, analysis and report writing are the responsibility of the applicant. AFSC will commit only to a review of the draft report;
- 2) Halibut census must be conducted by sea samplers both on deck and in the factory. We do not view the observers as having a role in this census because they are tasked with following their existing sampling protocol;
- 3) Given past problems with some vessels biasing observer information, General Counsel should review vessels, owners and captains operating under this EFP for past prior convictions. Those with prior convictions for observer interference and/or halibut-related violations within the last five years should be excluded.
- 4) There must be clear distinction between EFP tows and non-EFP tows.

The applicant should also consider other recommendations made in the comments.

cc: F/AKR - J. Hartman



Application for an exempted fishing permit to examine ways to reduce halibut bycatch mortality rates on Amendment 80 vessels through changes to handling procedures for halibut catches

Date of Application: March 16, 2009 (Note: This is a revised version from the March 12, 2009 and February 15, 2009, applications following feedback from the NMFS AK Region, AFSC, and IPHC)

Applicant Information: Best Use Cooperative, 4241 21st Avenue W., Suite 302
Seattle, WA 98199 Telephone: 206 462 7682, Fax: 206 462 7691
Principle Investigator: John R. Gauvin, Fisheries Science Projects Director, Best Use Cooperative
Telephone: 206 660-0359, 206 213-5270 Email: Gauvin@seanet.com

EFF vessel information:

F/T Ocean Peace

4201 21st Avenue West
Seattle WA 98199
Phone: 206 282-6100
Fax: 206 282-6103
Contact: Mitch Hull, Executive VP
Vessel Home port: Dutch Harbor
USCG # 677399
NMFS FFP 2134
LOA: 219 ft

F/T Constellation

O'Hara Corporation
120 Tillson Avenue
Rockland, ME 04841
Contact: Paul McFarland
Phone: 207-594-4444
Fax: 207-594-0407
Coast Guard#: 640364
NMFS FFP#: 4092.
LOA: 150 ft
Homeport: Rockland, Maine

F/T Cape Horn

Cape Horn Fisheries Inc.
4257 24th Ave. W..
Seattle 98199-1214
Contact: Dave Wilson
Phone: 206-286-1661
Fax: 206-286-1793
Coast Guard#: 653806
FFP#: 2110
LOA: 165 feet

Note: The vessels listed above were selected by the Best Use Cooperative based on factors affecting the feasibility of deck sorting halibut (practicality is a major issue for this pilot study) as well as the high level of

expected cooperation and compliance with EFP protocols and rules. To the best of our knowledge, none of the vessels, companies, or captains has had any halibut-related compliance violations in the past five years.

Amount/Species to be harvested, gear to be used: If approved by NMFS, the EFP fieldwork would be conducted from mid-May through the end of June 2009 on the three Best Use Cooperative (Amendment 80 sector) vessels listed above. The Best Use Cooperative is a fishing cooperative authorized under Amendment 80 to the BS/AI Groundfish FMP. Groundfish and PSC harvested during the EFP will come from the participating BUC member vessels' Amendment 80 allocations as well as from non-Amendment 80 species available to these vessels. While not requesting any additional groundfish or PSC, a provision in the EFP does include crediting the halibut mortality savings achieved from the EFP. Credit would be applied after the EFP data analysis has been reviewed by NMFS and the IPHC. The inclusion of credit to EFP participants for their halibut mortality savings from the EFP is used as an incentive to ensure that participants do all they can to reduce halibut mortality during the EFP. The process of accounting for, data review, and crediting for halibut mortality savings from the EFP is detailed below. Target fisheries for the EFP fishing will be a combination of Bering Sea cod, flathead sole, and "other flatfish" targets including Arrowtooth flounder. All EFP fishing will occur in areas of the Bering Sea otherwise open to fishing to non-pelagic trawl gear. The above fishery targets were selected because they occur during the timeframe when weather conditions are generally best for sorting halibut and assessing viability rates on deck. The target fisheries for the EFP (flathead sole, cod, and arrowtooth) are ones that the EFP vessels normally participate in as part of their annual fishing activities. Species caught and catch amounts during the EFP are expected to be the similar to what these vessels typically catch during this period of time in these target fisheries. EFP fishing is expected to be conducted on the fishing grounds east and northeast of the Pribilof Islands and in the "Horseshoe" (northeast of Dutch Harbor). Fishing gear used during the EFP will be the non-pelagic trawl gear that these vessels normally use. Depending on halibut bycatch rates, EFP vessels may use halibut excluders to help control halibut bycatch rates in accordance with their normal fishing practices and the objectives of the EFP outlined below.

NOTE: A reviewer of an earlier draft of this application noted that the target fisheries for the EFP do not include yellowfin sole, a major fishery for the Amendment 80 sector. To clarify this matter, it is true that yellowfin sole are sometimes targeted by Amendment 80 vessels during this same timeframe to varying degrees depending on the year. But halibut catch rates for yellowfin sole fishing during the May/June timeframe are typically extremely low because yellowfin sole are tightly schooled then and fishing occurs in locations such as Togiak where halibut abundance is typically quite low. So the potential for meaningful reductions in halibut mortality from deck sorting halibut in the late spring early summer yellowfin fishery was deemed to be low and not worth the extra time and effort that would be needed to sort halibut on deck. From the perspective of the EFP applicant, the fishing targets proposed for the EFP hold much higher potential for halibut mortality reductions relative to the yellowfin sole so yellowfin sole was not included in the target fisheries for this EFP.

Experimental design: Detailed below

Provisions for public release of data and information from EFP and provisions for interim and final reports from EFP: Detailed below

Willingness to carry observers during EFP: Each EFP vessel will carry two sea samplers during the entire time period in which they are engaged in fishing under the EFP. EFP vessels will also continue to carry their normal observer coverage requirements (2 observers) at all times during fishing authorized under the EFP. Sea

samplers will be regular NMFS-trained observers who meet all requirements of the NMFS North Pacific Observer Program but are not currently under contract to work as observers. Two sea samplers are needed on each EFP vessel to account for halibut catches on deck and in the processing area as well as conducting viability assessments on halibut sorted from the catch on deck as well as halibut that were missed during sorting on deck and are collected by the crew in the processing area. EFP participants will cover all additional costs for the sea samplers during the EFP. Other field project management and supervision is described below.

Signature of Applicant:

A handwritten signature in black ink, appearing to read "John Gauvin". The signature is written in a cursive, flowing style.

John Gauvin, Science Projects Director, BUC

Statement of Purpose and Goals:

The requested exempted fishing permit is needed for a pilot evaluation of how changes in halibut handling procedures on the participating Amendment 80 vessels may affect halibut bycatch mortality rates as well as accounting/monitoring of halibut catches. An EFP is needed to conduct this preliminary evaluation of potential for reducing halibut bycatch mortality so halibut can be rapidly returned to the sea from the deck and handled in a manner that is otherwise not currently allowable on Amendment 80 sector vessels. To create a realistic evaluation of potential for reducing halibut mortality, the EFP includes incentives to EFP participants in the form of lower halibut mortality rates applied (retroactively) to their EFP halibut catches following NMFS/ IPhC review of the data and analysis, and determination of halibut savings. Eventual credit for savings assumes that reductions in halibut mortality are achieved during the EFP, one of the questions that the EFP is designed to evaluate. In addition to looking at potential for reducing halibut mortality, this pilot study will provide some information on related questions such as the fraction of the halibut that can be feasibly sorted out on deck, how long and how much extra effort deck sorting will take, and how well alternative methods for accounting for halibut catches and mortality rates might work on Amendment 80 vessels.

How the effort to reduce halibut mortality fits into the Amendment 80 sector's overall objective to improve usage of target flatfish resources in the Bering Sea that are currently constrained of halibut bycatch mortality caps

With fishing cooperatives in place since January 2008, the Amendment 80 sector believes that better incentives for individual bycatch accountability now exist. With individual bycatch allowances via fishing cooperatives, fishermen can now see a direct relationship between how carefully they utilize their halibut bycatch mortality allowances and how much of the Amendment 80 and non-Amendment 80 species groundfish allocations (in particular Arrowtooth flounder) they can utilize. Amendment 80 fishermen are now focused on how to utilize a combination of tools they feel are necessary maintain or increase groundfish catches under the current and future halibut bycatch mortality allowances available to them. These include halibut excluders, hotspot avoidance through bycatch information sharing, and development of alternative handling procedures to reduce halibut mortality (the subject of this pilot study) for the halibut bycatch that fishermen have not managed to avoid catching. If a way to get those halibut back into the water can be made to work under the accounting and monitoring requirements of fisheries management in federal fisheries off Alaska, then having that additional tool in the toolbox would help to maintain or extend fishing opportunities under the halibut bycatch constraints the fishery faces.

Modifications to catch handling regulations and procedures would be needed in any effort to reduce halibut mortality rates because under the current regulations, nothing can be removed from the catch until the contents of the net are dumped into a holding tank, the catch goes over the required motion-compensated flow scale, and the observer on duty has had an opportunity to sample the fish.

At the conclusion of the first year of operations under Amendment 80 fishing cooperatives, many captains noted that factors such as tow duration and catch amounts per tow are now potentially more conducive to halibut survival relative to prior to Amendment 80. The indicator of better halibut condition posited by captains was that most of the halibut they bring aboard now appear to have better color and seem quite lively, at least when the net is first brought on board. To increase actual survival rates, however, fishermen noted that halibut would have to be returned to the sea faster than is currently possible. The suite of reasons

for the delay between the time the net is brought on board and halibut are returned to the sea are described in more detail below.

Official NMFS/ IPHC/NPFMC mortality rates applied to bycatch taken in Amendment 80 flatfish and cod fisheries are currently in the range of 70-80%. While current discard mortality rates are already quite high, the Amendment 80 sector faces the prospect that rates may actually increase in the next few years if status quo catch handling requirements and procedures remain in place. This is due to the downstream effects of new regulations wherein no mixing of catches from different tows is allowed under Amendment 80. This can mean that halibut remain out of the water longer than prior to Amendment 80 because a net coming on board cannot be dumped into a tank until all of the catch in that tank from the previous tow has been cleared. Mortality rates for halibut are determined via the IPHC's rolling average calculation of fishery-specific discard mortality rates, and fishing under Amendment 80 rules may in fact increase the fishery-specific average mortality rate applied to halibut taken as bycatch in that fishery target.

The intent of new catch handling regulations is to allow for accurate estimations of catch, including halibut bycatch, and the Amendment 80 sector fully appreciates the need for good catch data. However, according to the Amendment 80 captains, under the current catch handling procedures it can now take as long as two hours or more for some of the halibut in a given tow pass over the vessel's flow scale and be returned to the sea. Halibut survival may be lower than what would otherwise be possible using a different approach to handling and accounting for halibut bycatch on Amendment 80 vessels. A new system would ideally allow the halibut to be sorted on deck and returned to the sea more rapidly, while maintaining or possibly even improving the accuracy of estimating and accounting for halibut and other catch.

Another reason better tools to reduce halibut mortality are needed is because Amendment 80 includes phased-in reductions in the halibut mortality allowance available to the Amendment 80 sector. These reductions amount to 50 MT per year over the first four years of Amendment 80 management. The combined effects of the current catch handling regulations on halibut mortality rates and the phased-in reductions in halibut PSC available to the Amendment 80 sector are prime motivators for the Best Use Cooperative's efforts to develop all possible tools to effectively reduce halibut bycatch and halibut bycatch mortality rates.

Pilot study to examine ways to reduce halibut mortality rates while accurately accounting for halibut bycatch and bycatch mortality rates:

If approved, this EFP application would allow three Best Use Cooperative members to participate in a pilot study on ways reduce halibut mortality and improve accounting of halibut catches. The pilot study has been developed with input from the NMFS Alaska Fishery Science Center's Fisheries Monitoring and Analysis (FMA) Division and the International Pacific Halibut Commission (IPHC). The three vessels would be platforms for the pilot study under a permit authorizing the participants to handle and account for halibut catch and mortality rates in a manner that would not otherwise be allowed under current regulations. Halibut catch and mortality assessments would be done by the two sea samplers on each EFP vessel during the EFP. Additional supervision will be in place with field project management by the EFP permit holder (field project manager) at all times.

In addition to the BUC's field project manager, the applicant has invited NMFS' FMA Division, NMFS Regional Office in Juneau, and the IPHC participate in the fieldwork by sending a staff person out on the EFP vessels

during some or all of the fieldwork in 2009. In addition to helping to evaluate the methods used to handle and account for halibut catches and mortality rates, agency personnel participating in the fieldwork would also be in a good position to assess the potential for the eventual development of a wider program for reducing halibut mortality should the pilot study show that halibut bycatch mortality rates can be successfully reduced while meeting accounting and monitoring objectives.

We have been informed that AFSC's FMA Division does not have any staff available to assist in the field work for this EFP. But the other agencies listed above have not yet indicated whether they can make someone available. Additionally, we are planning to rotate an electronic monitoring (EM) system between EFP vessels during the EFP to assess the utility of EM for monitoring deck sorting activities. The plan for using the EM system is described in more detail below. One objective of evaluating EM for this purpose is to assess whether it could be used someday in the future in a fishery-wide application to improve monitoring and potentially reduce the need for fishery observers to be present on deck at all times during halibut deck sorting activities.

Exemptions needed for this EFP pilot study: To accomplish the objectives of the pilot study, specific exemptions are needed to allow vessels to handle halibut differently from what is currently allowed and for observers to account for catches differently from normal Amendment 80 procedures. Catch handling regulations do not allow any sorting or removal of catch on deck, prior to observer sampling. Additionally, the EFP will change the method and location for how and where halibut accounting and viability assessments will be done. During the EFP, these will occur principally on deck (and in the processing area for any halibut missed on deck) and halibut accounting will be done via a census. A specially designed halibut transport chute will be used on deck to return halibut removed on deck to the sea. This too is a departure from the current procedures for how halibut are accounted for and assessed for viability rates. These exemptions would only be available under this EFP and would be in place for a limited time period during this EFP pilot project.

Additionally, a modification to the NMFS catch accounting procedures used on Amendment 80 vessels will be needed for the EFP. As will be explained below, halibut catches will be accounted for as a census comprised of two parts: halibut from each tow accounted for on deck, and halibut that were missed during deck sorting and collected in the processing area from each tow. The total halibut catch per tow (numbers, lengths, and total weight) will be the sum of the halibut removed on deck and collected in the processing area. This method of reporting halibut catch is in lieu of the normal procedure to report halibut catch as a fraction from an observer sample that is then extrapolated to estimate total catch via the NMFS catch accounting program. The data entry field in NMFS' catch reporting software for reporting a census instead of a sample will be used during the EFP for this purpose.

General approach to this pilot study: The approach for the EFP is to focus on a subset of flatfish/cod target trawl fisheries that Amendment 80 fishermen feel are good candidates for attaining significant halibut bycatch mortality reductions. For those fisheries, a combination of factors is expected to affect the viability of halibut. One factor is the time needed to sort halibut from the target catch. This is likely affected by the vessel's deck layout, the available space to do the sorting, the percentage of halibut in the catch, and the size of halibut relative to the target species. Other key factors affecting halibut viability are things like tow duration and the catch amount per haul. The time of year selected for the EFP pilot study is expected to increase the likelihood that weather conditions will allow for expeditious and effective sorting on deck.

While all these factors would likely be covariates of interest in a scientific study, this pilot study is not designed to do a scientific assessment of how influential any one factor is in explaining mortality rates. The focus here is to see if changes that Amendment 80 captains think are workable for reducing halibut mortality do in fact result in meaningful reductions in halibut mortality rates under a set of accounting and monitoring conditions that are thought to be adequate for catch accounting purposes. Because this is feasibility study and not a scientific study, fishermen will be allowed to make adjustments during the EFP to how they fish and how many people are assigned to sorting halibut on deck as fishing conditions change during the EFP. The EFP will assess the time and effort needed to sort and account for halibut catches and determine to what degree participants can achieve mortality rate reductions (relative to the current IPHC mortality rates assigned to these target fisheries) within the accounting and monitoring system in place during the EFP.

A scientific study of specific covariates might incorporate tows with and without the modified catch handling procedures where the tows without would serve as a scientific control. For our pilot study, the basis for comparison of halibut mortality rates is simply the NMFS/IPHC mortality rate in place for the target fisheries covered in the EFP. This is an important distinction because the intent here is not to verify the accuracy of the official NMFS/IPHC halibut mortality rate applied to regular fishing. The concept of the EFP is to change halibut handling procedures, provide incentives to participants to fish and handle halibut in a manner that should reduce mortality rates, and evaluate how the resulting halibut mortality rates differ from the official NMFS/IPHC rates.

The vessels participating in the EFP will establish a fishing protocol among EFP participants prior to the start of the EFP. The protocol will be designed to facilitate sorting halibut on deck by keeping catch amounts and tow duration within parameters that are thought to increase viability of halibut. The fishing protocol will also encompass things such as selection of fishing areas to avoid during the EFP (areas where halibut are too numerous or are too small to make deck sorting effective). The intent is to maintain manageable bycatch rates for halibut during the EFP so that quantities of halibut are feasible for efficient sorting of halibut on deck.

Field work under this EFP will be done in a manner that is designed to generate practical and useful information and data that will allow the permit holder to assess the effectiveness and feasibility of the modifications in halibut bycatch handling procedures used during the EFP. In addition to generating an estimate of the degree to which halibut mortality rates could be reduced, the pilot study should help inform industry and fishery managers on how changes in halibut handling procedures might affect catch sampling methods, catch accounting, and catch monitoring effectiveness.

The pilot study should also help inform the Amendment 80 sector participants of the feasibility of removing halibut on deck under different catch handling regulations if regulations were to change to allow this practice. It should also inform the industry on basic costs of such changes in terms of vessel modifications and effects on vessel efficiency and safety. Although the starting point for collecting this information involves target fisheries and a time of year that the EFP applicant has selected as good candidates for success, the fieldwork should still be valuable for assessing the likely outcome in fisheries that pose greater challenges for reducing halibut mortality rates.

The field work will be conducted under conditions that approximate as closely as possible ones in place on Amendment 80 vessels. In addition to the modifications in catch handling procedures, the one major

difference will be incentives for the EFP participants to achieve some savings in terms of usage of their halibut mortality caps. This will only occur if they are in fact able to reduce mortality compared to the regular IPHC/NMFS halibut mortality rates that would otherwise be applied to their halibut catches. Such incentives do not exist currently in the regular Amendment 80 fisheries because catch accounting procedures do not allow halibut to be returned to the sea in a sufficiently expeditious manner to effectively reduce mortality rates. How those mortality savings from the EFP will be retroactively credited to EFP participants is detailed below.

Catch handling procedures under the current regulations and modifications that will be in place for the EFP:

Under the EFP, participating vessels will be allowed to use a modified procedure for catch handling during the EFP pilot study that will allow halibut (halibut alone) to be sorted from the net on deck and released back to the water after accounting for the halibut catch in the manner described below. Halibut will be the only species that is allowed to be sorted from the catch on deck.

The above modification in catch handling procedures will allow each of the three EFP participant vessels to sort the halibut from the rest of the catch on deck in the following manner. First, when the net is brought on deck, the crew will pull the net farther forward of the hatch to the aft fish holding tank than normally occurs. This will be done to provide the crew sufficient space to remove halibut as the catch is spilled into the below-deck catch holding tank. Additionally, the line (rope) used to keep the aft end of the codend closed during fishing (generally called the "zipper") will only be partially unzipped after the codend is pulled forward of the tank. This will help control the flow of fish out of the codend so fish can spread out across the increased area created by pulling the net further forward of the hatch to the tank. This should help the deck crew to identify the halibut and remove them from the flow of fish towards the tank. Sorting grids will not be used in the the process to sort halibut from the rest of the catch on deck.

At the outset of the EFP, crew members will be trained to slide the halibut to the starting point of the special chute that will be used during the EFP to move halibut to an area outside the trawl alley. The halibut will then be slid onto that chute, which runs through the trawl alley toward the port or starboard side of the vessel. Only one chute will be used to move the halibut on each EFP vessel. The purpose of the chute is to both expedite and facilitate transport of the halibut by reducing the need to lift the fish in order to move them to a temporary holding pen that is part of the chute itself. Although only one chute will be used on each EFP vessel, for some EFP vessels, the chute will be designed to be transferable to either side of the vessel. This will be done for the two EFP vessels that have a divided fish holding tanks and therefore occasionally need to switch sides for dumping catch into the holding tank. Vessels with split tanks tend to have wider trawl alleys and the ability to move the chute to the opposite side reduces the distance halibut will have to be moved to get them onto the chute.

The specialized halibut chutes will be equipped with a small flow of sea water to facilitate the movement of halibut from the trawl alley via the chute to the holding pen. The chute will be inserted through the trawl alley about ten inches above the deck. A short ramp up to the chute will be constructed so crew members should not need to lift halibut at all or carry them over the trawl alley. Cutting through the trawl alley to installing the chute also provides a useful downward angle for moving halibut without the use of a conveyor belt. At the same time, the elevation of the starting point of the chute in the trawl alley helps prevent target catch in the trawl alley from flowing into the chute. This is needed because it is possible at times that the

quantity of fish moving toward the tank out of the codend will be greater than intended. If the chute were closer to the level of the deck, there would be greater potential for fish other than halibut to slosh onto the chute with the movement of the vessel even in modest sea conditions.

Halibut that are slid down the halibut chute will move to a holding pen designed to collect them if sorting outpaces the time needed to count, measure, and do viability assessments. If halibut numbers in the catch are sufficiently low, then the gate on the holding pen can be pinned in the open position to allow the halibut to move directly to a length calibrated board at the end of the chute. In either case, a crew member will be positioned on the chute to assist the sea sampler whose job it is to account for the halibut sorted on deck (as well as taking viability samples as described below). If halibut need to be collected in the holding pen prior to being measured and assessed for viability, sea water will be pumped into the pen to help increase halibut viability. If everything is working as designed, halibut should not remain in the pen area for more than a minute or two. To achieve this quick turn-around, an efficient system for the sea sampler to count and measure halibut must be in place. Methods for accounting for halibut catches during the EFP are outlined below.

The duties for the crew member working in the chute area will be to assist the sea sampler on deck in handling the halibut so that they can be counted and individually measured. The crew member's work will allow the sea sampler to concentrate on tallying and measuring each halibut instead of being involved in moving or lifting halibut. The crew member will also assist (as necessary) the sea sampler by sliding fish one at a time to the sea sampler when the sea sampler is assessing halibut viabilities as per the viability assessment procedures described below.

A length board with length gradations and a shape that is appropriate for halibut will be provided by each EFP participant to facilitate the length measurements taken by the sea sampler during the EFP. The length board includes as part of its design a means of individually sliding halibut from the holding pen to the area where the sea sampler is stationed near an overboard scupper (a slotted portal normally installed on fishing vessels to drain water off the deck). This will allow halibut to be slipped through the scupper (released to the sea) once the sea sampler has taken the length measurement and done a viability assessment for each individual fish.

The length board will have a smooth surface and be wide enough to accommodate all but very large halibut, i.e., all those that are able to fit through the vessel's off-board scupper. Very large halibut are an infrequent catch in flatfish and cod fisheries in the Bering Sea. At the end of the length board closest to the off-board scupper, a small check/gate device will be installed so that the nose of each halibut will slide up to the gate and the halibut will be temporarily contained between the sides of the length board and the gate. In this manner, the sea sampler will then be able to obtain the length data for individual fish from the position of the fish's tail on the length board. This length board may also be useful for holding halibut when halibut viability sampling is occurring.

The sea sampler may have to hold the tail of the halibut down while the length data is being collected if the fish is flapping its tail. Holding the tail down would be necessary for halibut that are very lively and therefore flapping in a manner that makes length estimation difficult.

The sea sampler may record individual halibut lengths with a voice recording device to avoid the need to pick up a pencil and make a mark or data entry on a paper sheet for each halibut. Viability ratings for each halibut can be recorded in the same manner or on a separate waterproof sheet. Alternatively, bar codes for each length may be installed onto the length board so that a bar code reader "wand" can be used to record the individual lengths. The latter approach would also allow the data to be directly placed into an MS Access or MS Excel spreadsheet. The decision to use a bar code reader system or voice recorder will depend on the preference of the sea samplers, who will be consulted prior to the start of the EFP. During the EFP, sea samplers will use the same viability assessment methods that regular observers use in the normal non-pelagic trawl flatfish and cod fisheries.

Each sea sampler will use a stopwatch to determine the time duration needed to complete sorting of the halibut on deck for each tow. The start time will be when the net is brought on board and pulled forward of the hatch and the end time will be when all the catch from that haul are in the below deck tank. The data will be recorded for the purpose of evaluating the feasibility of deck sorting halibut during the EFP.

During the process of spilling the contents of the codend into the aft tank and removal of halibut on deck, catch from that tow will be accumulating in the tank. After notifying one of the vessel's regular observers (the one who is on duty at that time), the crew will start bringing catch from that haul into the processing area. This is the area where the vessel's regular observers do their catch composition sampling and the rest of their other observer duties, which will proceed in the normal manner except that species composition sampling methods will reflect that halibut is not part of the observer sample, as explained below.

To account for any halibut that were missed during sorting operations on deck during the EFP, the processing crew will be instructed prior to the EFP to remove any halibut that were missed on deck as they enter the processing area on the conveyor belt. The second sea sampler on board during the EFP will oversee the halibut sorting activities of the crew in the processing area during the EFP. To ensure that procedures for this as well as the handling of halibut on deck are clearly understood by everyone who will be handling halibut during the EFP, briefings will be held prior to the start of the EFP with sea samplers and crew members who will be involved with sorting and handling halibut. The observers who will participate on the EFP vessels will be identified to NMFS in advance so they can be briefed and provided a copy of these operating conditions.

The EFP should not create additional workload for the regular observers on the vessels engaged in the EFP. Each EFP vessel's two observers will simply be expected to do their normal observer duties. Sea samplers will note any departures from the procedures crew members are supposed to do to remove halibut on deck or from the sorting belt in the processing area. Halibut that were missed during sorting on deck will be placed into a tote that will be used to hold them until they can be tallied, measured, and discarded.

During and after halibut sorting on deck is completed for a given tow, the sea sampler working below deck will oversee halibut sorting activities done by the crew in the processing area as well as accounting for and taking lengths of each halibut missed on deck as they are removed from the sorting belt by crew members. Viability assessments for the halibut collected in the processing area will also be done by the sea sampler working below deck and these data will be recorded along with halibut numbers and lengths as was done on deck. The sea sampler will include the haul number (matching the record numbering system used on deck) so that the total number of halibut per tow can be calculated and the fraction removed on deck can be determined. An example of how this might be done is a number system for each EFP tow that accounts for

halibut from haul "12D" (meaning halibut from haul 12 removed on deck) and "12F" (removed in factory). Accounting for the halibut missed during deck sorting is critical to assess the benefits and practicality of deck sorting halibut.

Under this design, species composition sampling, total catch accounting, and biological sampling will be done by the regular observers and halibut will be treated independently as a census. The total number of halibut catch per tow including halibut sorted on deck and collected in the processing area will be converted to weight using the standard IPHC length to weight conversion. The total weight of halibut per tow will then be supplied to the vessel's regular observers so that it can be reported to NMFS. The data entry field used for this in the NMFS catch accounting software will be the one for a census rather than as a fraction of the observer sample. Reporting using that data field will avoid over-reporting halibut catch because under the EFP data collection procedures, halibut catch will be a census instead of a fraction of a sample done as part of species composition sampling.

Procedures for viability sampling for halibut removed from the catch on deck: Given that the EFP needs as much information on viabilities of halibut removed on deck as possible to accurately reflect the mortality rate achieved over the course of the EFP and across all three EFP vessels, the approach will be to assess viability (i.e. mortality) rates for each halibut removed on deck. Discussions with captains who will participate in the EFP reflect that they are confident that the numbers of halibut during the EFP will allow viability to be assessed for each halibut removed on deck without slowing down the process of sorting and measuring halibut so that viability is reduced. When numbers of halibut are relatively high during the sorting process, the gate on the chute will be closed to check the forward progress of the halibut down the chute used on each vessel. This should help to prevent the flow of halibut from overwhelming the ability of the crew member and sea sampler to work at a pace where the sea sampler can account for each halibut length and do viabilities on each fish.

To ensure practicality given the uncertainties that are inherent with fishing, a fall back approach to halibut viability sampling may be needed on some tows in the event that an unexpectedly large number of halibut are caught. In the pre-EFP briefing, sea samplers will be asked to come up with a back-up approach for viability assessment on tows where the additional time needed to do halibut catch accounting and viability assessments on each fish might actually reduce halibut viabilities. In such cases, an approach such as doing viabilities on every other fish might be used. Sea samplers will note on their data recording form the tows where viabilities were done on a subset of the halibut and the sampling frame they used for those tows.

To ensure that halibut catch rates are not too high to allow for viability assessments on all halibut on nearly all tows, the EFP field project manager will keep the principle investigator informed on key performance variables such as how frequently sub-sampling for halibut viabilities is needed. The principal investigator will send updates summarizing this information on a weekly basis to the exempted fishing permit holder to provide an idea of how the EFP vessels are performing in this regard. If halibut catches are too large to allow the project to meet the objective of doing viabilities on every halibut on nearly all tows, then the EFP participants will be given feedback from the principal investigator that things are not working as planned and adjustment in fishing areas or other factors affecting halibut catch rates must be made. If improvements cannot be made, then the principal investigator in consultation with the NMFS/IPHC personnel involved with the project may suspend or terminate the EFP field test before its scheduled conclusion.

Fisheries/time period for the EFP in 2009 and the how the target amount of fishing for the EFP pilot study was designed:

Based on discussions with the EFP captains, it is felt that the mid-May to June period is ideal for achieving the halibut mortality and safety objectives of the EFP. This timeframe was selected because it is a time of year when weather conditions are typically ideal for the additional work on deck needed to sort out and account for halibut catches and viability sampling. The May/June time period is also a time when fishing for flathead sole, arrowtooth flounder, and cod occurs in areas/depths where the halibut have tended to be larger than other times of the year (e.g. winter rock sole, when bycatch of halibut tends to be relatively large numbers of small halibut). Conducting the EFP in the flathead sole/arrowtooth/cod fisheries in May/June is expected to facilitate sorting out the halibut on deck and result in a high fraction of the halibut removed on deck.

Finally, the captains who will be in charge of the EFP vessels believe the time period selected for the EFP allows for a high degree of success with halibut excluders and area-based bycatch avoidance to keep the numbers of halibut per tow to manageable levels during the EFP. These conditions likely apply fairly well to July and early August also, so if logistical problems arise during the EFP, there would be a way to move the EFP testing back to a month or so to allow for achievement of the EFP objectives.

An additional aspect of the EFP is to conduct the pilot test over a sufficient period of time in 2009 to collect enough information and data to assess the success of the modified handling procedures in terms of reductions in halibut mortality rates, the percentage of halibut removed on deck, and attainment of accounting/monitoring objectives for the EFP. The target amount of fishing for the EFP pilot study was designed around being sufficiently representative of actual fishing conditions, balanced against the cost and practicality of having two sea samplers on board for a period of time, given that the EFP boats currently already have to pay for the two full time observers already. The four to six week time duration was selected because it amounts to approximately three to five trips under normal fishing conditions in recent years. The basis for this was comments by captains that every vessel could likely make the modified handling procedures and fishing protocol work for one or two trips, but three to five trips would be a better test of the practicality of the modified halibut handling procedures.

Likewise, captains felt that the range of things that occur on a vessel to make conditions representative of fishing are more likely to play out over a three to five trip period than over one or two trips. This expectation is based on their knowledge of what can occur even when a plan to prevent things from occurring is agreed upon (such as the fishing protocol used for the EFP) and then that plan is implemented in the real world. For example, under the EFP fishing protocol, fishermen can be expected to be reasonably skillful at keeping catch at the target level if the level is set at what is practical for the fishery. However, over the period comprising three to five trips, even the best effort to control catches will result in some hauls with greater catches or larger amounts of halibut than were anticipated. The objective here is to conduct the EFP under conditions where the modified halibut handling procedures are expected to work well while incorporating at least some fishing under conditions that are more challenging, providing insights as to how well the modified procedures work under those challenges.

Finally, another design element was to conduct the EFP on vessels with different deck layouts and other likely determinants of success for deck sorting halibut. The decision to include three vessels in the EFP was based on the expectation by captains that some decks provide relatively more room and relatively smaller challenges for moving halibut out of the trawl alley and into an area where they can be accounted for and

released through an off-board scupper. In discussing how to make EFP pilot study relevant to the industry's desire to know if deck sorting halibut is widely feasible, captains considered the different deck configurations and deck space factors within the membership of the cooperative. In the final analysis, captains proposed the three vessels listed above because they represent a good cross representation of the challenges for sorting and moving halibut.

Based on the captains' discussion of the factors they feel will determine success, the three vessels for the EFP have quite different arrangements in terms single or double hatches to below deck tanks and width of trawl alleys relative to overall beam width. Captains felt that it was more important as a first step to focus on the different deck layouts representing the realities of the Amendment 80 sector than, for instance, selecting a "small" H&G vessel (one in the <125 foot category). Also, the relative amount of Amendment 80 catch on smaller H&G vessels is decreasing due to advantages larger vessels possess given fuel costs and efficiency relative to frozen hold capacity. If further fieldwork is done after this initial pilot study in 2009, inclusion of a vessel in the <125 foot category might, however, be worthwhile.

Plan for dealing with unanticipated conditions and outcomes that may arise during the EFP:

The objective is that the procedures for sorting halibut on deck during the EFP will be followed for all tows during the EFP. However, the realities of weather are such that even with the EFP occurring during the "good weather months," it is possible that conditions for part of the time could be relatively unsafe for the additional work for the crew and sea sampler on deck. Therefore some allowance is needed so EFP participants and the sea sampler working on deck can temporarily suspend the EFP catch handling protocol during the EFP if weather conditions are not suitable for the additional work on deck. If a suspension in the EFP test is needed, then the tows occurring during that time will be handled and accounted for in the manner currently in place for the regular Amendment 80 fisheries.

To prevent the possibility of biasing the results of the EFP, procedures need to be in place to prevent temporary suspension of the EFP for reasons other than weather conditions. To achieve this, the decision to suspend halibut sorting on deck due to unsafe conditions will be made prior to setting a net. If deck sorting of halibut is suspended due to inclement weather, then the halibut handling procedures will default back to the ones done in the regular Amendment 80 fishery. The regular Amendment 80 procedures will then remain in place until the weather conditions improve and a decision is made to resume the EFP. To resume the EFP, the decision will need to be made that the EFP handling procedures will be in place before the net is set.

Each EFP tow (where the modified halibut handling and accounting procedures are in place) will be identified prior to setting the gear and recorded in the logbook with an identifying EFP number. Tows which do not have an identifying EFP number are not part of the EFP and therefore not exempt from the regulations. Additionally, to avoid any confusion for sea samplers, regular observers, and crew, a system will be in place to indicate when EFP fishing and catch handling procedures are not in place (when weather conditions do not allow deck sorting) and fishing is occurring under the normal catch handling regulations. This system will be developed in consultation with sea samplers, vessel managers, principal investigator, and field project manager. This may include posting signs in the processing area and entrances to the deck or other devices to clarify and remind everyone on board that the EFP catch handling procedures are not in effect. Once again, the expectation is that weather conditions for the season selected for the EFP will allow all tows to be done under the EFP catch handling protocol. But a backup plan will need to be available to cover for bad weather

conditions. Additionally, the decision to suspend EFP handling procedures will have to be made prior to the start of a tow and the decision to resume EFP catch handling procedures will have to be made prior to starting a new tow.

In the extreme case that the EFP sorting and halibut handling procedures are clearly not working at all for one or all of the EFP participant vessels, then the EFP can be prematurely curtailed by the EFP principal investigator or NMFS in consultation with the IPHC. One criterion for stopping the EFP field work before the project is completed is if deck sorting halibut does not appear to have any ability to lower halibut viability rates relative to the mortality rates currently in place for the regular Amendment 80 fisheries. This decision to stop the EFP before the completion of the pilot study would be made only after the EFP participants have made adjustments to the fishing protocol to improve the chances of increasing viability rates.

Another reason for stopping the EFP pilot study prematurely will be if the catch handling procedures are deemed by the EFP participants to be impractical because the production rates for the vessel are not economically viable. Alternatively, it might be that the workload for crew members or the sea samplers is too difficult physically despite the vessel's efforts to reduce bycatch rates to a level that produces manageable numbers of halibut. Once again, premature curtailment of the EFP will only be done in consultation with NMFS and the IPHC personnel involved in the development of the EFP and after the EFP participants have made adjustments to the fishing protocol or changes to the fish handling procedures.

NMFS in consultation with the IPHC may also opt to terminate the experiment prior to its conclusion because they feel the EFP is not meeting its objectives or the data being collected is not thought to be valid or useful. Additionally, NMFS, the IPHC, or the EFP principle investigator may also consider terminating the EFP fieldwork prematurely if the data from the EFP shows that the fraction of halibut that can be removed on deck is too small relative to the overall amount of halibut and the quantity of halibut that must be accounted for below deck cannot be feasibly stored or handled to allow for an accurate census of the total halibut catch.

Use of electronic monitoring tools in the EFP to evaluate its feasibility for monitoring fish handling on deck and in the processing area:

One objective of the EFP is to evaluate the potential utility of electronic monitoring (EM) for monitoring the deck area to ensure catch handling procedures are being followed. The plan for evaluating EM in the EFP is to have one EM system provided and installed by a qualified EM service provided that would then be rotated between the EFP vessels on a trip by trip basis. This would allow effectiveness of EM on different EFP vessels to be assessed. This plan may have to be modified when cost estimates for an EM system are available to the EFP vessels. If the cost is workable, the EM camera placements will be designed to monitor the entire deck area to evaluate whether EM is useful for determining if discards from the deck are occurring in areas where they are not allowed under the EFP procedures. Only halibut will be able to be discarded from the deck and only via the specialized halibut chute during the EFP. So the EM placements and monitoring set up will be configured around those EFP restrictions.

One purpose for collecting the video data would be to assess the utility of EM for determining if crew members are following the EFP procedures. A review of the EM data conducted by the EM service provider (e.g. Archipelago Marine Resources of Victoria, BC Canada) would provide an assessment of what can be determined in terms of identification of halibut versus other species via EM. Numbers of halibut handled by the crew on a tow by tow basis can be compared to the counts by the sea sampler (or observer) on deck to

evaluate whether the camera placements etc. are adequate for tracking and confirming halibut catch numbers. Finally, if the sea samplers note any discards that do not comport with the protocol in place for the EFP, they will be asked to note the day/time that this occurred. The reviewer of the EM records can then use the notes of these occurrences to evaluate whether EM would be useful for detecting these discards that do not follow the allowed procedures.

Finally, EM may be useful for evaluating whether an observer performing catch composition sampling work or other duties in the processing area below deck could utilize a live feed of the EM video to help monitor the sorting activities on deck. To evaluate this, a flat screen monitor will be placed in a convenient location where the sea sampler working in the processing area can look at the video feed to see whether it is useful for monitoring catch handling procedures on deck. Such video would be designed around a potential future model where halibut handling procedures would be widely in place for the Amendment 80 sector and monitoring of activities on deck might be done with EM. This potential future arrangement might shift the lead responsibility for sorting and accounting for halibut on deck to the crew and monitoring via review of stored EM data or monitoring of live feed of video would be in place. A live feed of the deck video might then be useful to allow observers to monitor sorting on deck while they worked below deck.

To assess the potential utility of EM for this purpose, the sea sampler working in the processing during the EFP will be asked to periodically look at the live feed from the EM system on deck when the EM system is in place on a given vessel. Interviews conducted by the principal investigator following the EFP will be used to get the sea samplers' informal assessments of the utility of EM for this purpose.

Purpose behind crediting halibut mortality savings achieved during the EFP (retroactively) to provide incentives to EFP participants to do all the extra work needed for sorting halibut from the catch on deck:

To obtain the most realistic assessment of the potential for reducing halibut mortality rates, the EFP design needs to include some incentives for participants to fish and handle halibut in a manner that minimizes mortality under the extensive EFP halibut handling/accounting procedures. To achieve this, it is critical that participants use their own BUC allowance of halibut PSC mortality during the EFP and that there is some mechanism to credit mortality savings achieved from the EFP. Even if the NMFS catch accounting system cannot account for and apply credit for halibut mortality reductions in real time, the approach crediting for any mortality savings described below works because, during the EFP, participants will not know if their annual halibut bycatch mortality allowances will be constraining relative to the amount of fishing they plan to do in 2009. Therefore, the halibut mortality savings achieved during the EFP could provide EFP participants with some extra fishing opportunities later in 2009 later in the year if halibut becomes and they would otherwise have to stop fishing. This incentive is important to ensure vessel crews diligently follow EFP protocols to reduce halibut mortality even though they would result in significantly more effort by the deck crew. If at the end of the year their fishing operations are not constrained by halibut mortality, then EFP participants would not need to make use of the savings and formal crediting the halibut mortality savings to the EFP participants would not be necessary.

Specifics for halibut catch accounting, halibut viability assessments, and procedure for crediting of any halibut bycatch mortality savings from the EFP:

Halibut bycatch during the EFP will be accounted for via the individual counts and length measurements. The sea samplers will do these counts and measurements on all halibut on each EFP haul. Likewise, sea samplers will do viability assessments on all halibut during the EFP unless this is deemed to be infeasible on some tows, particularly on tows with a large number of halibut. For those tows, a fallback plan for sub-sampling will be used as is explained above. The goal of doing viability assessments on all halibut during the EFP was adopted because it provides the largest possible data pool and therefore also reduces the potential that any one tow or day would have a large effect on mortality rates overall. The standard IHPC length to weight conversion will be applied to each halibut length measurement to convert individual halibut lengths into weights.

Sea samplers will utilize the standard IPHC method for determining mortality rates in place. These are the same methods that are used in the regular Amendment 80 fisheries. Separate accounting and viability assessments will be done for the halibut sorted on deck and for the halibut missed during deck sorting (halibut collected in the processing area). To ensure separate accounting of halibut in the two locations, sea samplers will assign different data base codes for halibut sorted on deck and halibut collected in the processing area.

During the EFP, all groundfish and PSC data will be reported to NMFS using the regular reporting system that Amendment 80 vessels already use to report data to NMFS. Because halibut bycatch will be a census, however, the data entry field within NMFS' catch reporting software designed for reporting a census will be used to report the halibut bycatch on each EFP tow. The halibut bycatch reported in this data field will be the total halibut weight from each tow, including the weight of halibut removed on deck and halibut collected in the processing area. When the halibut catch data are entered into the program, the NMFS catch accounting system then automatically applies the normal NMFS/IPHC approved target mortality rates to this halibut. Because it has been reported in the normal manner, the halibut mortality generated from the EFP will not at

that point reflect the halibut mortality rates data being collected during the EFP and hence will not reflect any halibut mortality savings.

Following the completion of the EFP, the halibut mortality for the three EFP vessels will be calculated in the following manner. The mean halibut mortality rate for halibut sorted on deck across the three EFP vessels over the entire set of EFP tows will be calculated. Likewise, the average halibut mortality rate for halibut collected in the processing area will be calculated across the three EFP vessels and all EFP fishing will be calculated. For each location (deck and processing area), the total halibut mortality in that locations will be calculated by multiplying the location-specific average halibut mortality rate times the total weight of halibut for that location. The amount of halibut mortality in each location will then be subtracted from the "nominal" halibut mortality in each location based on the NMFS/IPHC official halibut mortality rate to come up with the amount of halibut savings from the EFP. The "nominal" halibut mortality is the amount of halibut catch in each location that has already been reported to NMFS catch accounting system and therefore has received the NMFS/IPHC official halibut mortality rate to that weight of halibut catch. The difference between the amount of halibut mortality using the official mortality rate and the EFP-determined average rate will be the provisional EFP halibut mortality savings. These saving are "provisional" because they are subject to the review process described below. To clarify how these calculations will be done an example of how these calculations will be done is shown below.

Once the principal investigator has completed the calculations described above, all data and calculations used to arrive at the provisional halibut mortality savings will be provided to and reviewed by the IPHC and NMFS FMA. The expected timeframe for the FMA and IPHC review is approximately three weeks. This timeframe is designed around having the halibut mortality savings finalized and potentially available to the EFP participants in a timeframe that will allow them to plan their fishing for the remainder of the fishing season. The EFP applicant recognizes that this is a target timeframe that may require some adjustment due to NMFS and IPHC staff workload. Following their review, NMFS AFSC will inform the EFP holder and NMFS Region of any data quality or calculation issues and the final amount of halibut mortality savings from the EFP.

For purposes of crediting any EFP halibut mortality savings to the EFP participants, the following will occur. During the EFP, Best Use Cooperative will manage catch and halibut mortality accounts for the EFP vessels in the normal manner done for all BUC member vessels. During the EFP, reports to EFP participants will be made to inform them of their halibut mortality usage based on the NMFS/IPHC official mortality rates. Estimated halibut mortality usage based on average halibut mortality rates achieved during the EFP (running average to date) will also be provided to the EFP participants. Reports to EFP participants will emphasize that mortality usage based on average rates achieved during the EFP are subject to change when all the EFP data are in and the average rates for the overall data are available. Likewise, they will be subject to the NMFS/IPHC review at the end of the EFP. The halibut mortality information based on the NMFS/IPHC official rates and the estimated rates during the fishery will help participants understand how well they are doing in terms of halibut mortality reductions and therefore serve to incentivize halibut bycatch mortality reduction during the EFP. In this manner, EFP participants will also understand the range of potential halibut mortality outcomes given that the final data analysis and review have not been completed and NMFS and IPHC will have the final word on halibut mortality savings.

When NMFS and IPHC have completed their review of the EFP data and analysis, the BUC will inform EFP participants of their pro-rata halibut mortality savings. The expected timeframe for this is late summer of 2009 subject to NMFS/IPHC staff availability. Should the halibut bycatch mortality become limiting for any of the EFP participants later in the fishing year (limiting in a nominal sense), the BUC will allow that EFP participant to continue fishing up to the final amount of halibut mortality savings that was reported to the BUC by NMFS. Because NMFS' in-season data is based on halibut mortality allowances based on the official halibut mortality rates applied to EFP catches (this does not reflect any halibut mortality savings from the EFP), NMFS' catch accounting may at some point reflect a nominal "overage" in the BUC's halibut allowance. This would occur if the BUC's overall halibut allowance is used by BUC members and EFP participants utilize the halibut mortality savings from the EFP.

The potential for BUC members to utilize all their halibut allowances and for the EFP participants to utilize all of their allowances plus engage in fishing to utilize the halibut mortality savings from the EFP is not known at this time. This also presupposes that the EFP participants do actually create halibut mortality savings. Under the scenario that all of the above conditions occur (there are mortality savings from the EFP, BUC members use all their halibut mortality allowances in 2009, and the EFP participants utilize the savings from the EFP), then the NMFS catch accounting system would show a "nominal overage" in halibut mortality for the BUC. In this case, any performance reports by the BUC or NMFS detailing catch performance in 2009 relative to bycatch limitations would need to reflect that the reported halibut bycatch mortality for the BUC is a "nominal overage" which does not reflect the halibut mortality savings from the EFP.

Numerical example of how halibut mortality savings would be calculated and credited to EFP participants

NOTE: THIS EXAMPLE IS FOR INFORMATIONAL PURPOSES AND DOES NOT NECESSARILY INDICATE EXPECTED CATCH AMOUNTS OR HALIBUT MORTALTY RATES FOR THE EFP

EFP total halibut bycatch during overall all EFP fishing =	50 MT
EFP halibut bycatch sorted on deck=	40 MT
EFP halibut bycatch collected in processing area =	10 MT
Average halibut mortality rate deck sorted halibut (from viabilities) =	55 %
Official NMFS/IPHC mortality rate for target fishery (Ofats) =	74 %
Average mortality rate for processing area halibut (from viabilities) =	90 %

Equation 1: Nominal halibut mortality from EFP when total weight of halibut bycatch is entered into NMFS Catch Accounting System:

$$E1: 50\text{MT of halibut bycatch} \times 0.74 = 37 \text{ MT}$$

Equation 2: Actual halibut mortality from EFP = (Weight of halibut sorted on deck times average mortality rate from deck sorting) + (weight of halibut collected processing area times mortality rate from viabilities done in processing area) = Total halibut mortality for EFP

$$E2: (40 \text{ MT} \times 0.55) + (10 \text{ MT} \times 0.90) = 31 \text{ MT}$$

Halibut mortality savings from EFP (difference between Equation 1 and Equation 2):

37 MT - 31 MT = 6 MT

Best Use Cooperative's distribution of halibut savings from EFP if halibut bycatch becomes constraining

Based on pro-rata share of total halibut bycatch from EFP to apportion halibut mortality savings between EFP vessels:

Example: Vessel 1 = 14 MT halibut bycatch during EFP
 Vessel 2 = 16 MT halibut bycatch during EFP
 Vessel 3 = 20 MT halibut bycatch during EFP

Therefore pro-rata shares of halibut mortality savings would be as follows:

Vessel 1= 28% of 6 MT = 1.68 MT
Vessel 2= 32% of 6 MT = 1.92 MT
Vessel 3= 40% of 6 MT = 2.40 MT

Table depicting roles and responsibilities for fieldwork and data analysis for EFP components:

TABLE 1				
Pilot study component	Task	Data to be collected	Lead responsibility for task	Lead responsibility for data analysis
<u>Sorting halibut on deck</u>	Sorting halibut from catch on each tow	N/A	EFP participants	EFP principal investigator
	Timing of removal of halibut from catch	Time needed to complete halibut sorting/tow	Sea samplers	EFP principal investigator
	Observing halibut sorting operations on deck to assess practicality etc.	Information to assess general feasibility of removing halibut on deck and factors affecting success such as weather, workload for crew, workload for sea sampler	Field project manager with input from sea samplers	EFP principal investigator
<u>Accounting for halibut removed on deck</u>	Counting individual halibut per tow	Number sorted on deck per tow	Sea samplers	EFP principal investigator
	Measuring individual halibut	Length of individual fish	Sea samplers	EFP principal investigator
<u>Halibut viability sampling and assessment on deck</u>	Assessing viability of all halibut taken in EFP (to degree possible)	Viability estimates across EFP vessels over duration of EFP	Sea samplers	EFP principal investigator

TABLE 1 – continued

Pilot study component	Task	Data to be collected	Lead responsibility for task	Lead responsibility for data analysis
	Monitoring ability to do viabilities on all halibut during EFP	Periodic estimates of viability rates during EFP, looking at fraction of tows where all halibut are assessed for viability	Sea samplers and EFP field project manager	EFP principal investigator
<u>EFP Fishing Protocol</u>	EFP participants design and implement fishing protocol and adjust as necessary.	Description of fishing protocol and participants' agreements to implement protocol including adjustments to protocol in response to halibut mortality rates	EFP participants under direction of field project manager and EFP principal investigator	EFP principal investigator
	Tracking fishing protocol to evaluate how fishing and halibut sorting and viability are affected	Information to evaluate how changes in fishing protocol affect actual tow duration, catch amounts per tow, halibut bycatch rates, relative size of halibut, and overall feasibility of deck sorting	Field project manager and EFP principal investigator with input from EFP participants and sea samplers	EFP principal investigator

TABLE 1 - continued

Pilot study component	Task	Data to be collected	Lead responsibility for task	Lead responsibility for data analysis
<u>Collecting and accounting for halibut missed on deck (collected in processing area)</u>	Accounting for halibut missed during sorting on deck	Number, weight/length of individual fish	EFP participants (collecting) accounting (sea samplers)	EFP principal investigator
		Viability assessment of halibut sorted in processing area	Sea samplers	EFP principal investigator
		Assessment of feasibility of collecting halibut missed on deck	EFP field project manager, sea samplers	EFP principal investigator
<u>Electronic Monitoring</u>	Placing EM systems and collecting and analyzing data	Data to evaluate utility of EM for monitoring catch handling procedures on deck	EM service provider, interviews with sea samplers to assess utility of real time feed for monitoring deck	EM service provider
		Data to evaluate utility of EM for confirming that only halibut are sorted from catch on deck	EM service provider	EM service provider
<u>Review of halibut mortality savings and EFP report</u>	Review calculations for halibut mortality savings and review PI's report on overall EFP findings		NMFS FMA, IPHC, and NMFS Alaska Region	

List of cost components, estimated costs and responsible parties:

Table 2 below provides an overview of the different cost components of the EFP fieldwork and the estimated costs based on the task as described in this EFP application. The party responsible for the cost item is also identified in Table 2.

Table 2

Cost Component of EFP	Estimated Cost	Responsible Party
<u>Sea Samplers</u>	\$30,000 (4 weeks of EFP fishing) to \$42,000 (6 weeks of EFP fishing) per EFP vessel over duration of EFP	EFP Participants
<u>Halibut Chute and Holding Pen</u>	\$25,000 materials and labor for three chutes total	EFP Participants
<u>Halibut Length Board</u>	up to \$3,000 per vessel if bar code and reader device is included	EFP Participants
Field project management by EFP permit holder	\$40,000 based on one field project manager rotated between EFP vessels	EFP participants
Field project management by IPHC or NMFS Region (if available)	Not known	
Electronic monitoring on deck and in processing area	Assumes one EM system rotated between EFP vessels, EM service provider contracted to install system and analyze data to evaluate utility of EM for objectives of EFP (\$?)	EFP participants

Making EFP data and results public: draft and final reports and presentation of findings from the EFP:

Upon completion of the fieldwork described above, the EFP applicant (principal investigator) will analyze the information and data from the EFP and draft a report summarizing the findings. The draft report will be a concise description of the EFP objectives and methods and the qualitative and quantitative findings. This draft report will be shared in first draft form with personnel from NMFS' FMA and the IPHC who are involved in the design of the EFP. The EM service provider contracted to collect the EM data and evaluate the utility of EM for the monitoring objectives described above will provide the EFP holder a draft report prior to the development of a draft report of findings. The EFP principal investigator will then incorporate that component into the overall report of findings from the EFP fieldwork. Once the principal investigator receives and incorporates the comments on the draft report from the FMA and IPHC, a second draft of

findings will be compiled and shared once again with the above agencies. After comments on the second draft are incorporated into the report, the principal investigator will notify the NPFMC that the report is ready for presentation to the NPFMC. The findings from the report will then be available for a presentation to the NPFMC. The scheduling of the draft final report will then be made to the NPFMC and its advisory bodies at the NPFMC's convenience.

Background material for NPFMC Agenda Item D-1(b), April 2009, "Review HAPC evaluation criteria"

For: SSC

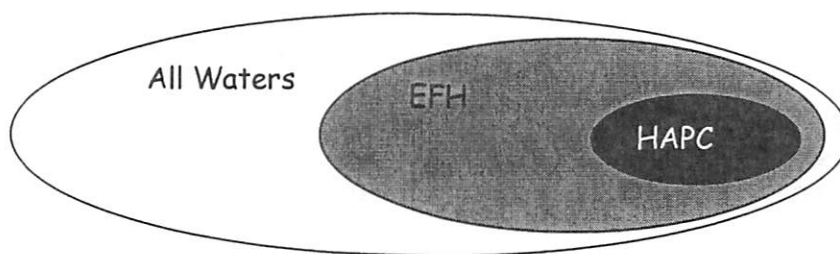
Ref: Habitat Areas of Particular Concern (HAPC)

The Council received Plan Team and public feedback from the last HAPC proposal cycle, which occurred in 2004. The main comment centered on the need for better definition, guidance, or clarification of the criteria used for the review of HAPC proposals. The SSC is asked to help clarify and propose a system to use within the Council's HAPC Process. The Council will be considering whether to initiate another HAPC proposal cycle in June 2009. The rating criteria that will be used to evaluate candidate sites would ideally be established and listed as part of the RFP that would go out for HAPC proposals. Because the SSC might need two meetings to review and revise the HAPC criteria, this issue is on the agenda for the SSC in April 2009.

Appendix 1 to this document contains the guidelines for the Council's existing HAPC proposal process. Appendix 2 provides an excerpt of the Joint Plan Teams' minutes from March 2004, in which they explain their concerns about the review criteria. Appendix 3 provides an excerpt from the SSC's minutes from March/April 2004, when the Plan Teams' report was presented. The following information is meant to assist SSC discussion.

Background

Essential Fish Habitat (EFH) provisions provide a means for the Council to identify HAPCs [50 CFR 600.815(a)(8)] within Fishery Management Plans (FMPs). Specific to fishery actions, HAPCs are areas within EFH that are ecologically important, sensitive to disturbance, or rare.



HAPC Guidance

While numerous definitions exist for ecological properties, specific HAPC guidance does not exist. Complications compound when various ranking and scales are applied to meet HAPC intent. The following general guidance exists:

- HAPCs provide a mechanism to acknowledge areas where more is known about the ecological function and/or vulnerability of portions within EFH.
- HAPC are localized areas especially vulnerable or ecologically important.
- HAPCs are meant to provide pre-cautionary approaches within fisheries management.

- Rarity applies to those habitats less common than other habitats in a particular geographic area.
- HAPCs are based upon best scientific information available; per National Standard 2.

Other HAPC Guidance & Reference Materials

- Council HAPC Process (Appendix 1)
- Plan Team Summary of 2003 HAPC Proposals (Appendix 2)
- EFH Final Rule Comments and Responses Section 18 [Pages 2357 & 2358].

Council's 2004 HAPC call for proposals

In 2003, the NPFMC established a transparent, public process to identify and conserve HAPC's. The process is initiated by a public call for HAPC sites that address a specific priority set by the Council. The Council's HAPC identification process (which occurred in 2004) focused on two specific priority areas:

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 included 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.

Existing HAPC Process – Excerpt on Evaluation Criteria

Proposals were reviewed by following the existing HAPC process, which was outlined in the EFH EIS (final version 2005). The full version of the existing HAPC process is contained in Appendix 1. The following is an excerpt that describes the process for evaluating candidate HAPCs.

Evaluation of Candidate HAPCs.

"The reviewers may rank the proposals by using a system like the matrix illustrated in Table J.1 and provide their recommendations to the Council. In the NPFMC Environmental Assessment of Habitat Areas of Particular Concern (NPFMC 2000), proposed HAPC types and areas were evaluated by using a ranking system that provided a relative score to the proposed HAPCs; they were weighed against the four considerations established in the EFH Final Rule. One additional column was added to the matrix to score the level of socioeconomic impact: the lower the impact, the higher the score. The Data Level column was split into two columns, Data Level and Data Certainty, to reflect not only the amount of data available, but also the scientific certainty of the information supporting the proposal. A written description should accompany the scoring so that it is clear what data, scientific literature, and professional judgments were used in determining the relative score."

HAPC Examples	Data Level	Data Certainty	Sensitivity	Exposure	Rarity	Ecological Importance	Socioeconomic impact level
Seamounts and Pinnacles	1	1	Medium	Medium	High	Medium	Low
Ice Edge	3	1	Low	Low	Low	High	Low
Continental Shelf Break	3	2	Medium	Medium	Low	High	Medium
Biologically Consolidated Sediments	1	3	Low	Medium	Low	Unknown	Unknown

Expanded HAPC Definitions – Draft for Discussion Purposes

In preparation for the next call for proposals for HAPC sites, the SSC is asked to help define the criteria used to review whether a proposed area qualifies as a HAPC. The following definitions are offered to initiate discussion:

Ecological Importance (EI)

Ecological Importance is species habitat dependency to reproduce or rear young. [EI is not to be all waters or substrates.]

Sensitivity (S)

Sensitivity is the habitat's ability to resist disturbance. [Habitat less sensitive to disturbance are more resilient.]

Rarity (R)

Rare habitats are less common. [Rare habitats are afforded special attention for conservation.]

I. Introduction and Background

In June 1998, the NPFMC identified several habitat types as areas of particular concern (HAPCs) within essential fish habitat (EFH) amendments 55/55/8/5/5. Habitat types, rather than specific areas, were identified as HAPCs because little information was available regarding specific habitat locations. These HAPC types included the following:

1. Areas with living substrates in shallow waters (e.g., eelgrass, kelp, and mussel beds)
2. Areas with living substrates in deep waters (e.g., sponges, coral, and anemones)
3. Freshwater areas used by anadromous fish (e.g., migration, spawning, and rearing areas)

The history of North Pacific Council HAPC designations is provided in Chapter 2 of the EFH environmental impact statement (EIS). In April 2001, the Council formed the EFH Committee to facilitate industry, conservation community, Council, and general public input into the EFH EIS process. The committee worked cooperatively with Council staff and the National Marine Fisheries Service (NMFS) to identify alternative HAPC criteria, as well as approaches that could be used to designate and manage HAPC areas. The Committee aided in formulating the HAPC designation alternatives referred to in Chapter 2 and developed recommendations for a HAPC process.

In October 2003, the Council chose a preliminary preferred alternative for a HAPC approach: HAPCs will be site-based, and the three HAPC types listed above will be rescinded. For the initial 2003 HAPC process, the Council recommended that the proposals focus on sites within two specific priority areas:

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.

Nominations were based on best available scientific information and included 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.

Appendix J summarizes the process that will be used to identify HAPC sites in the future, consistent with the HAPC approach chosen through Action 2, Adopt an Approach for Identifying HAPCs, of this EIS. The Council may modify this HAPC process over time, as warranted.

II. HAPC Considerations and Priorities

The Council will call for HAPC nominations through a proposal process that will focus on specific sites consistent with HAPC priorities designated by the Council. The Council may designate HAPCs as habitat sites, and management measures, if needed, would be applied to a habitat feature or features in a specific geographic location. The feature(s), identified on a chart, would have to meet the considerations established in the regulations and would be developed to address identified problems for FMP species. They would have to meet clear, specific, adaptive management objectives. Evaluation and development of HAPC management measures, where management measures are appropriate, will be guided by the EFH Final Rule.

A. HAPC Considerations

HAPCs are those areas of special importance that may require additional protection from adverse effects. 50 CFR 600.815(a)(8) provides that FMPs should identify specific types or areas of habitat within EFH as habitat areas of particular concern based on one or more of the following considerations:

- (i) The importance of the ecological function provided by the habitat.
- (ii) The extent to which the habitat is sensitive to human-induced environmental degradation.
- (iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type.
- (iv) 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.

B. HAPC Priorities

The Council will set priorities at the onset of each HAPC proposal cycle.

C. HAPC Proposal Cycle

HAPC proposals may be solicited every 3 years or on a schedule established by the Council.

D. HAPC Process

The HAPC process will be initiated when the Council sets priorities, and a subsequent request for HAPC proposals is issued. Criteria to evaluate the HAPC proposals will be reviewed by the Council and the Scientific and Statistical Committee (SSC) prior to the request for proposals. Any member of the public may submit a HAPC proposal. Potential contributors may include fishery management agencies, other government agencies, scientific and educational institutions, non-governmental organizations, communities, and industry groups. A step-by-step outline is attached as Figure 1.

E. HAPC Call for Proposals

A call for proposals will be announced during a Council meeting, and will be published in the Federal Register, as well as advertised in the Council newsletter. Scientific and technical information on habitat distributions, gear effects, fishery distributions, and economic data should be made easily accessible for the public, simultaneous with issuing a call for proposals. For example NMFS' Alaska Region website has a number of valuable tools for assessing habitat distributions, understanding ecological importance, and assessing impacts. Information on EFH distribution, living substrate distribution, fishing effort, catch and bycatch data, gear effects, known or estimated recovery times of habitat types, prey species, and freshwater areas used by anadromous fish is provided in the EFH EIS. The public will be advised of the rating criteria with the call for proposals.

F. Contents of HAPC Proposals

The format for a HAPC proposal should provide/include the following:

- Name, address, and affiliation.
- Title for the HAPC proposal and a single, brief paragraph concisely describing the proposed action.
- Identify the habitat and FMP species that the HAPC proposal is intended to protect.
- Statement of purpose and need.
- Describe whether and how the proposed HAPC addresses the four considerations set out in the final EFH regulations.
- Define the specific objectives for this proposal.
- Propose solutions to achieve these objectives [How might the problem be solved?].
- Establish methods of measuring progress towards those objectives.
- Define expected benefits of the proposed HAPC; provide supporting information/data, if possible.
- Identify the fisheries, sectors, stakeholders, and communities to be affected by establishing the proposed HAPC [Who would benefit from the proposal; who would it harm?] and any information you can provide on socioeconomic costs.
- Clear geographic delineation for the proposed HAPC (written latitude and longitude reference point and delineation on an appropriately scaled NOAA chart).
- Best available information and sources of such information to support the objectives for the proposed HAPC (citations for common information or copies of uncommon information).

G. HAPC Initial Screening

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.

III. HAPC Review Process

A. Scientific Review

The Council will refer selected proposals to the plan teams (Gulf of Alaska groundfish; Bering Sea groundfish; Bering Sea crab, scallop, and salmon). The teams will evaluate the proposals for ecological merit.

There will always be some level of scientific uncertainty in the design of proposed HAPCs and how they meet their stated goals and objectives. Some of this uncertainty may arise because the public will not have access to all relevant scientific information. Recognizing time and staff constraints, however, the staff cannot be expected to fill all the information gaps of proposals. The Council will have to recognize data limitations and uncertainties and weigh precautionary strategies for conserving and enhancing HAPCs while maintaining sustainable fisheries. 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.

B. Socioeconomic Review

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, socio-economic considerations have to be balanced against expected ecological benefits at the earliest point in the development of measures. NMFS' Final Rule for developing EFH plans states specifically that FMPs should "identify a range of potential new actions that could be taken to address adverse effects on EFH, include an analysis of the practicability of potential new actions, and adopt any new measures that are necessary and practicable" (50 CFR 600.815(a)(2)(ii)). In contrast to a process where the ecological benefits of EFH or HAPC measures are the singular initial focus and a later step is used to determine practicability, this approach would consider practicability simultaneously. Proposals should also be rated as to whether they identify affected fishing communities and the potential effects on those communities, employment, and earnings in the fishing and processing sectors and the related infrastructure, to the extent that such information is readily available to the public. Management and enforcement will also provide input during the review to evaluate general management cost and enforceability of individual proposals.

C. Management and Enforcement Review

Proposals will be reviewed for management and enforceability.

D. Evaluation of Candidate HAPCs

The reviewers may rank the proposals by using a system like the matrix illustrated in Table J.1 and provide their recommendations to the Council. In the NPFMC Environmental Assessment of Habitat Areas of Particular Concern (NPFMC 2000), proposed HAPC types and areas were evaluated by using a ranking system that provided a relative score to the proposed HAPCs; they were weighed against the four considerations established in the EFH Final Rule. One additional column was added to the matrix to score the level of socioeconomic impact: the lower the impact, the higher the score. The Data Level column was split into two columns, Data Level and Data Certainty, to reflect not only the amount of data available, but also the scientific certainty of the information supporting the proposal. A written description should accompany the scoring so that it is clear what data, scientific literature, and professional judgments were used in determining the relative score.

Proposed HAPC area	Data Level	Data Certainty	Sensitivity	Exposure	Rarity	Ecological Importance	Socioeconomic impact level
Seamounts and Pinnacles	1	1	Medium	Medium	High	Medium	Low
Ice Edge	3	1	Low	Low	Low	High	Low
Continental Shelf Break	3	2	Medium	Medium	Low	High	Medium
Biologically Consolidated Sediments	1	3	Low	Medium	Low	Unknown	Unknown

IV. Council Action

A. Council Assessment of Proposal Reviews

Staff will provide the Council with a summary of the ecological, socioeconomic, and enforcement reviews.

B. Council Selection of HAPC Proposals for Analysis

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.

C. Potential Outcomes

Each proposal received and/or considered by the Council would have one of three possible outcomes:

1. The proposal could be accepted, and, following review, the concept from the proposal could be analyzed in a NEPA document for HAPC designation.
2. The proposal could be used to identify an area or topic requiring more research, which the Council would request from NMFS or another appropriate agency.
3. The proposal could be rejected.

D. Stakeholder Input

The Council may set up a stakeholder process, as appropriate, to obtain additional input on proposals.

E. Technical Review

The Council may obtain additional technical reviews as needed from scientific, socioeconomic, and management experts.

F. NEPA Analysis

Staff will prepare a National Environmental Policy Act (NEPA) analysis and other analyses necessary under applicable laws and Executive Orders.

G. Public Comment on NEPA Analysis

The Council will receive a summary of public comments and take final action on HAPC selections and management alternatives.

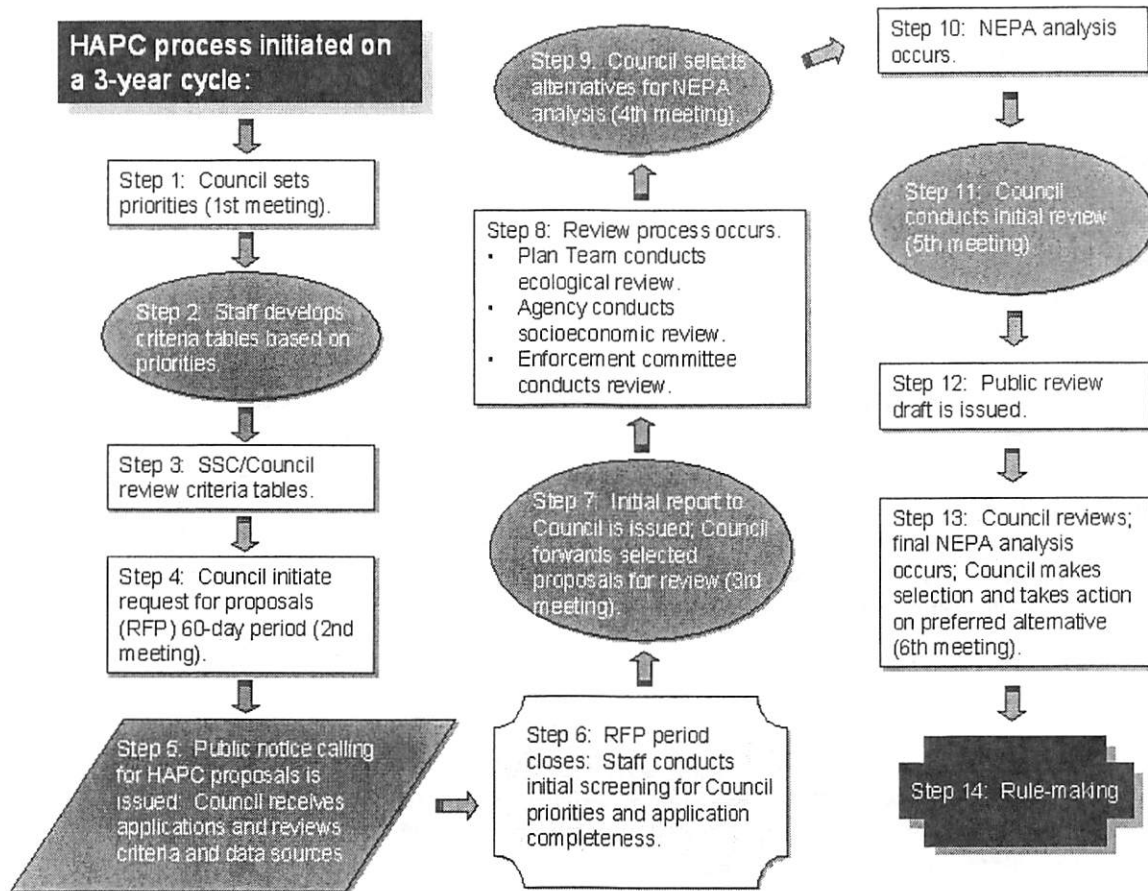
H. Periodic Review

The Council may periodically review the efficacy of existing HAPCs and allow for input on new scientific research.

V. Literature Cited

NPFMC. 2000. Draft Environmental Assessment/Regulatory Impact Review. Habitat Areas of Particular Concern. North Pacific Fishery Management Council. Anchorage, AK.

Figure 1. HAPC Process Sequential Steps



EXCERPT FROM

Report of the NPFMC Joint Plan Teams' review of proposals for Habitat Areas of Particular Concern (HAPC)

March 8-9th, 2004

Compiled by the Plan Teams for the North Pacific Fishery Management Council:
BSAI Groundfish Plan Team
GOA Groundfish Plan Team
BSAI Crab Plan Team
Scallop Plan Team

1 Plan Team concerns

Council staff provided the Plan Teams with tables for their review (see Appendix) based upon Council direction for facilitating the relative scoring of proposals. While the Plan Teams attempted to follow Council direction in reviewing proposals per these instructions, the Plan Teams have several concerns regarding Tables 1 and 2:

- 1) The rating criteria were evidently not established until after the proposals had been submitted, meaning that proposers had no way of knowing the full range of information that would be required to rate their respective proposals.
- 2) The proposals deal with habitat *areas*, but the tables deal only with habitat *types*. This tends to generate a mismatch between the data provided in the proposal and the data required for completion of the tables. For example, a proposal might provide data showing that a given habitat *area* is "stressed" without mentioning whether the habitat *type* in general is similarly stressed. A related problem has to do with homogeneity of habitat type within a proposed area. If a proposed area encompasses more than one habitat type, the ratings in the tables become difficult to interpret. A more precise description defining the meaning of habitat area and habitat type for the purpose of this analysis is needed.
- 3) The ratings in the tables may imply a greater degree of precision than is warranted by the available data. For example, a rating of 3 under one category should not necessarily be interpreted as carrying the same weight as a rating of 3 under another category. Similarly, a rating of 3 should not necessarily be interpreted as carrying three times the weight as a rating of 1, even under the same category.
- 4) The rating criteria sometimes conflict with standard usage of terms. For example, according to the rating criteria, a habitat type can be classified as "locally rare" only if the habitat type is "common" in the respective management area (the Plan Teams dealt with this problem by assuming that "common" meant "occurs to some extent"). Another example is the rating criteria for "stressed," where a *higher* level of fishing pressure implies a *lower* "stressed" rating.
- 5) In several instances, the rating criteria are ambiguous. First, under "local rarity," the criteria for ratings of 2 and 3 are logically equivalent. Second, under "ecological importance," multiple criteria are presented for each rating, making it difficult to assign a rating if some criteria are met while others are not. Third, under "stressed," the criteria for ratings of 2 and 3 are expressed in different dimensions (i.e., the criterion for a rating of 2 is expressed in terms of *frequency* of fishing whereas the criterion for a rating of 3 is expressed in terms of *regularity* of fishing).

Some additional concerns were also noted with respect to Table 3 summarizing the proposals according to Council priorities. Specifically, the Plan Teams were unable to adequately address what they interpreted Council direction to be on "relative disturbance". While the interpretation of this was believed to be the relative disturbance of the habitat, the Plan Teams did not feel that adequate clarification was made nor sufficient information provided to evaluate this. Instead the Plan Teams chose to mimic the ratings used in this category as for the "stress" category in the Tables 1 and 2. The Plan Teams also noted that evaluating to what degree proposals met Council priorities was more befitting a staff or agency decision than an evaluation by the Plan Teams. The Teams noted that deciding upon the degree to which a proposal was responsive to the request for proposals would have been more beneficial earlier in the process.

2 Plan Team comments and suggestions on the current HAPC process

The Teams generally expressed appreciation to be included in the process of establishing useful HAPC designations. This issue is important and can have far-reaching consequences for developing innovative management strategies. The Council requested comments from the Teams about the effectiveness of this style of review process.

The Teams' felt that more input on writing the "directions for reviewers" and on criteria might have helped alleviate some ambiguity.

The Teams' discussed the pros and cons of establishing a smaller subset of plan team members assigned specifically to a HAPC review workgroup (along with a number of experts). Many plan team members felt that could be more efficient than requesting that all members of all Plan Teams participate in the full review process. Such a workgroup could then report back to the full Plan Team their findings similar to other working groups (e.g., "Other species" working group, Crab overfishing working group). However, other plan team members discussed that the inclusion of all Team members brought together diverse experiences and expertise and provided for a more comprehensive review. This was felt to be constructive initially and served to raise the level of general understanding about habitat issues to those involved in FMP implementations (where these types of concerns have not traditionally played a large role). The Teams' acknowledged that time and opportunity to involve additional expertise from outside of the plan teams would have been beneficial in the process.

An evaluation of the level of data utilized in the proposal as well as the level of scientific uncertainty inherent in that data would be useful in this review.

Citations should be submitted in full for these proposals such that reviewers could pursue these citations if necessary to evaluate their relevance. Grey literature should be accessible and would assist reviewers.

A general habitat inventory should be made available. If this is unavailable, it should be a priority for agency work. This would serve a number of purposes, one of which would be to provide a uniform basis for evaluating HAPC sites.

As noted above under "Plan Team concerns," it was difficult to evaluate proposals in a consistent manner according to established criteria. Also, there was a lack of time available to debate and discuss a number of critical concepts and measures.

The Teams struggled with the notion in many proposals that HAPC sites that lack information should be designated HAPC *first*, and then evaluated for refinements and further research to determine if the designation was appropriate. Since HAPC are discretionary tools for Council use, a HAPC designation

should be based on information that is currently available rather than on speculation. That said, perhaps HAPC proposals that fit this description should fall into a separate research priority category. This would provide the Council with a subset of sites that may not fit the HAPC criteria, but may reflect a higher priority research area.

Several sites proposed were areas already closed to trawling, hence the question of how to treat the Council's priority on "stress" was raised. Since Council guidance did not specify the type of fishing activity, the Teams interpreted any fishing activity (e.g., fixed gear such as longline and pots) in considering the degree of stress.

Additional data concerns centered on the determination of extent of relative fishing pressure by proposal area. This was notably difficult for reviewers to assess given only the information provided in the proposal though it was noted that some additional information was provided by staff. While it was noted that confidentiality issues may be problematic, it was suggested that in the future catch data be provided in some aggregated form such as within statistical areas.

The number of proposals and limited time to review them did not leave sufficient time to discuss important concepts like the size of buffers around areas, maintaining habitat types as well as connected groups of habitat types, and the overall management objectives for HAPCs.

The Teams noted that the same sites were identified in a number of proposals, but varying levels of scientific information were utilized for each site. There should be consistent availability of data for proposed sites such that it would then raise the levels of information available for use by all proposers and therefore increase the quality and consistency of all proposals. Mixing of sites within proposals made them difficult to evaluate (i.e. pinnacles and seamounts). Proposers could likely have done a much better job in their respective proposals had they been advised to separate out these conflicting and sometimes confusing mixtures of areas and habitat types.

Finally evaluating individual HAPC sites (regardless of who proposed them) rather than evaluating duplicative sites by individual proposal would have been more beneficial and increased the utility of proposal review. The Plan Teams understand that during this review this was not necessarily feasible under the time constraints and thus the Teams evaluated each proposal individually. However it is the Teams understanding that it is the individual sites and relative merits thereof that will eventually be evaluated in any forthcoming analysis.

APPENDIX TO 2004 PLAN TEAM REPORT: The Plan Teams' comments relate to the directions for review provided in 2004, and the accompanying tables, appended here.

DIRECTIONS FOR REVIEWERS

1. Check your group assignment (you may be assigned to multiple groups).
2. Review assigned proposals. Please discuss with your group or other colleagues as appropriate.
 - a. Fill out proposal lines in Table 1 or 2 as appropriate (additional directions below).
 - b. For each proposal reviewed, fill out a Proposal Merit form.
3. Submit review to group leader prior to the meeting. If you are the group leader, collect and summarize your group's proposal reviews, and be prepared to lead off the discussion at the meeting.
4. Read and/or review other proposals if possible.
5. Attend and participate in meeting.

HOW TO FILL OUT THE TABLES

Tables 1 and 2

Evaluate proposal areas for rarity, ecological importance, sensitivity, and stress. Rarity is divided into global and local rarity. For global rarity, please note yes or no if the feature is considered globally rare. Use the scoring system listed below for the other indicators.

Score	Local Rarity	Ecological Importance	Sensitivity	Stressed
EFH Final Rule:	<i>The rarity of the habitat type.</i>	<i>The importance of the ecological function provided by the habitat.</i>	<i>The extent to which the habitat is sensitive to human induced environmental degradation.</i>	<i>Whether and to what extent development activities are or will be stressing the habitat type.</i>
1	Habitat common throughout the Alaska region: Bering Sea, Gulf of Alaska, and Aleutian Islands	Habitat is featureless or unknown; fish are present; reproductive associations with the habitat do not exist	Habitat or structure less sensitive	Habitat is exposed to routine fishing disturbance or natural perturbation
2	Habitat common in one of the Alaska regions, and occurs with less frequency in one or both of the others	Habitat exhibits some structure; fish are present within known substrates; habitat or reproductive associations may exist	Habitat or structure somewhat sensitive	Habitat is exposed to occasional fishing disturbance or natural perturbation
3	Habitat is common in only one of the Alaska regions	Habitat consists of highly diverse or vertical structure; substrate is notable; vulnerable life history stages of fish or habitat reproductive associations exist	Habitat or structure highly sensitive	Habitat is exposed to little or no fishing disturbance or natural perturbation

For Table 1 there are two parts. The first row (in bold box) is mandatory, and rates the overall proposal for all included seamounts. Additionally, if you are able to evaluate the proposed seamounts on an individual basis, then provide specific rankings in the appropriate row.

Table 3

The remaining columns under Council priorities will be filled out at the meeting. When reviewing the proposals, please keep in mind the degree to which the proposal meets the Council priorities of high relief coral areas, areas with rockfish present, and largely undisturbed areas.

Table 1. Summary of Plan Teams' classification for seamounts. NOTE: see Plan Teams' concerns in introduction for a discussion on problems with interpreting this table.

Plan Team Groups	Proposal Area	Proposer	Proposal Number	Number of Named Seamounts	Council priority (named, EEZ)	Rarity Global (Y/N)	Rarity Local	Ecological Importance	Sensitivity	Stressed	Total
A	Alaska	TOC	1	23	Y	Y	3	2	2	2	NA
A	Gulf of Alaska	Oceana	2	21	Y	Y	3	2	2	2	NA
A	Aleutian Islands	Oceana	3	3	Y	Y	3	2	2	2	NA
A	Alaska	NMFS	4	16	Y	Y	3	2	NA	2	NA

Table 2. Summary of Plan Teams' classification by group. NOTE: see Plan Teams' concerns in introduction for a discussion on problems with interpreting this table.

Plan Team Group	Proposal Area	Name of Proposer	Proposal Number	Rarity Global (Y/N)	Rarity Local	Ecological Importance	Sensitivity	Stressed	Total
A	AI Pinnacles	Oceana	3	N	2	NA	NA	NA	NA
A	GOA Pinnacles	Oceana	2	N	2	NA	NA	NA	NA
A	Kodiak 8 fathom pinnacle	NMFS	23	Y	3	2	2	R	NA
B	BS Zermchug and Pribilof Canyons	TOC	20	N	3	2	2	R	NA
B	GOA Prince William Sound Deep Water Canyon	TOC	21	N	2	2	2	R	NA
C	GOA Albatross Rockfish	AAG	6	CY	2	2	2	O	NA
C	GOA Middleton Island	AAG	7	CY	2	2	2	O	NA
C	GOA Sanak Island	AAG	5	CY	2	2	2	O	NA
C	GOA Primnoa Forrest	NMFS	8	Y	2	3	3	O	NA
D	AI Adak Canyon	AMCC	9	Y	2	3	3	O	NA
D	AI South Amie Atka	MCA	15	Y	2	3	3	R	NA
D	AI Adak and Kanaga	MCA	16	Y	2	3	3	R	NA
D	AI Amatignak/Alak	MCA	17	Y	2	3	3	R	NA
E	AI Bowers Ridge	AMCC	10	Y	2	NA	NA	L	NA
E	AI Semisopchnoi	MCA	18	Y	2	3	3	R/O	NA
E	AI Coral Gardens	NMFS	19	Y	3	3	3	R	NA
F	AI Marine Reserve	TOC	12	Y	3	3	3	R	NA
F	AI Core bottom trawl area	Oceana	14	Y	3	NA	NA	R	NA
G	AI Coral and Sponge	TOC	11	Y	3	3	3	R	NA
G	AI corals gardens	Oceana	13	Y	3	3	3	R	NA
H	BS- Soft coral	Oceana	22	Y	2	2	3	R	NA

Legend:

- L = Low level of fishing
- O = Occasionally fished
- R = Routinely fished
- CY = Conditionally yes
- Y = Yes
- W = Weak information
- NA = Not available, see qualitative comments

Table 3. Plan Teams' summary for Council priorities.

Proposal Number	Proposal Name	Proposer	Sites Proposed	Council Priorities				
				Named Seamount	Aleutian Islands	Rockfish	Relative Disturbance	High Relief Coral
1	North Pacific Seamounts	TOC	23	Y	Y			
2	GOA Pinnacles & Seamounts		73					
	GOA Seamounts	Oceana		Y	N			
	GOA Pinnacles	Oceana		Y	N	Y	R	CY
3	AI Pinnacles & Seamounts		85					
	AI Seamounts	Oceana		Y	Y			
	AI Pinnacles	Oceana		Y	Y	Y	R	CY
4	Named Seamounts	NMFS	16	Y	Y			
5	Sanak Island rockfish	AAGF	1	N	N	Y	O	UNK
6	Albatross Bank	AAGF	1	N	N	Y	O	UNK
7	Middleton Island	AAGF	1	N	N	Y	O	UNK
8	GOA Primnoa	NMFS	4	N	N	Y	O	Y
9	Adak Canyon	AMCC	1	N	Y	Y	O	Y
10	Bowers Ridge	AMCC	2	N	Y	Y	L	Y
11	AI Coral & Sponges	TOC	5	N	Y	Y	R	Y
12	AI Marine Reserve Network	TOC	4	N	Y	Y	R	Y
13	AI Coral Gardens	Oceana	5	N	Y	Y	R	Y
14	AI Core Bottom Trawling Open Permit Area	Oceana	55	N	Y	Y	R	Y
15	South Amlia/Atka	MCA	1	N	Y	Y	R	Y
16	Adak & Kanaga	MCA	5	N	Y	Y	R	Y
17	Amatignak/Ulak & Tanaga	MCA	2	N	Y	Y	R	Y
18	Semisopchnoi & Bowers	MCA	2	N	Y	Y	R/O	Y
19	AI Coral Gardens	NMFS	6	N	Y	Y	R	Y
20	Zemchug & Pribilof Canyon	TOC	2	N	N	Y	R	Y
21	PWS Deepwater Canyon	TOC	1	N	N	Y	R	UNK
22	Bering Sea Soft Corals and Seamount	Oceana	3	N	N	N	R	N
23	8-fathom Pinnacle	NMFS	1	N	N	Y	R	N

EXCERPT FROM**MINUTES
SCIENTIFIC STATISTICAL COMMITTEE
March 29-31, 2004****C-2 HAPC**

Cathy Coon (NPFMC) outlined a tentative schedule of work and a framework for analysis of HAPC alternatives. Diana Stram (NPFMC) reported on findings and recommendations that emerged from a joint plan team review of the 23 HAPC proposals received in response to the Council's initial request for proposals. Scott Miller (NMFS AKR) reported on initial efforts to devise an approach to examine the social and economic effects of HAPC designations and associated management measures. (The draft initial report on socioeconomic effects was not provided in advance and consequently was not formally reviewed by the SSC.) The SSC also received a report on HAPC enforcement issues. (The enforcement report was not provided in advance and was not addressed in staff presentation and consequently was not reviewed by the SSC.) Dr. Bob Stone of NMFS-Auke Bay Laboratory gave a presentation on recent research on coralline habitats in the Aleutian Islands. Areas for study were selected based on the occurrence of coral bycatches. Observations were made from the Delta submersible. Dr. Tom Shirley of the University of Alaska Fairbanks gave a presentation on his deep-sea submersible studies of seamounts in the Gulf of Alaska. The seamount project resulted in detailed maps and unique observations on the distribution of deepwater corals, sponges, and associated invertebrates. Several species of crabs were observed. Juveniles and adults of some species were stratified into narrow depth ranges. The SSC would like to commend both Dr Stone and Dr. Shirley for their excellent presentations. Public comment was provided by Two Crow, Ed Richardson (Pollock Conservation Cooperative), Heather McCarty (Marine Conservation Alliance), Jon Warrenchuck (Oceana), John Gauvin (Groundfish Forum), and Cora Crome (Petersburg Vessel Owners Assoc).

To facilitate the Joint Plan Team review, the analysts organized the 23 HAPC proposals into 8 groups based on similarities in habitat type or region. The eight groups include: a) seamounts and pinnacles; b) deep water canyons; c) GOA hard corals; d) AI hard corals; e) AI hard corals (additional subset); f) AI marine reserve and AI core bottom trawl areas; g) AI coral gardens and AI coral and sponge; and, h) BS soft coral. Following Plan Team review, Council staff pooled proposed sites similar in habitat type or in the same region into conceptual approaches for HAPC alternatives, which were presented. The SSC endorses this conceptual approach and encourages the development of a process where the public is encouraged to nominate sites and provide rationale for the sites nominated. The analysts could then assemble available information about fishing activities, and fishery and non-fishery resources in the region of the site. This would place all of the proposals on a similar footing for review by the joint plan teams. The SSC commends the analysts for their exceptional work and presentation.

Because this is the first review cycle for HAPC proposals, there has been some uncertainty about the process of proposal review, about linkages between the proposals and actionable alternatives to be considered by the Council, and about the structure of analysis of the actionable alternatives.

Issues that have arisen include:

- Some proposals did not respond to the two specific priorities identified by the Council. However,

while the Council identified priorities, it did not stipulate that it would only entertain proposals that addressed those priorities.

- Some proposals identified areas for further research rather than areas for immediate permanent restrictions on permissible fishing gear.
- It would have been helpful if the request for proposals had clearly specified whether the request was for HAPC in terms of specific habitat areas or in terms of habitat type.
- The linkage between coral and sponge habitat on seamounts and pinnacles and the long-term productivity of FMP rockfish species is not well-established and is unlikely to become well established. If it is imperative that there be a clear linkage between HAPC and the productivity of FMP species, it is unclear whether HAPC is an appropriate instrument for protecting areas of habitat that have other interests to the public.
- Because the criteria to be used for rating the proposals were not announced at the time that the proposals were solicited, some of the proposals did not include enough information to be rated for "ecological importance" or "sensitivity"..
- Because "stressed" was not clearly defined, the Plan Teams used a scale of the relative intensity of fishing effort as a proxy for "stressed". Although the Plan Teams scored most proposals for most of the criteria, the Teams expressed concern that a "high" rating of 3 might infer greater knowledge than is warranted by available data and cautions that the ratings are categorical, thus a rating of 3 should not be interpreted as having three times the weight as a rating of 1.

For the above reasons, the Plan Teams have recommended that the summary tables in the Plan Teams report should not be used to evaluate proposed sites. The SSC concurs.

As noted in the February 2004 SSC minutes "a clear definition must be established for all Council priorities and HAPC considerations". The Council was deliberate in stating their designated priority areas:

- (1) Seamounts in the EEZ, named on NOAA charts, that provide important habitat for managed species, and
- (2) largely undisturbed, high relief coral beds that provide important habitats for managed species.

There remains a need to provide unambiguous definitions of the four HAPC considerations established in the EFH Final Rule: (1) importance of ecological function; (2) sensitivity; (3) stress; and (4) rarity. The SSC recommends that the analysts review source material such as the recent NRC report on the effects of fishing on habitat, and consult with appropriate experts to develop concise and unambiguous definitions of the four HAPC considerations as they will be applied in the North Pacific.

The definition of "stress" was particularly troubling for the Plan Teams. The Plan Teams interpreted "stress" to be a measure of "relative disturbance". If disturbance is interpreted as density of bottom contact fishing, then an effort must be made to numerically evaluate effort by gear for each site in contrast to the spatial distribution of the fishery overall. The SSC recommends that the definition for "stress" include a consideration of the frequency of disturbance, habitat recovery time and how natural and human disturbances influence habitat form and function. A kelp forest, for example, is subject to natural perturbation from storms and biota has adapted to a relatively fast regeneration time in contrast to slow growing corals found in deeper waters.

The SSC requests that the Council clarifies its intentions on several important HAPC issues and that staff include in the EA a clear description of the relevant legislation and Council intentions in these areas. The SSC notes that it may not be possible to motivate the protection of rare and fragile habitats (e.g., habitat found on seamounts and coral gardens) solely on the basis of their linkage to the productivity of managed species. Although no new management measures are required, the Council chose to proceed with HAPC and associated management measures as a precautionary way to address potential

effects on habitat. The analysts noted that MSFCMA and EFH regulations (FR 67 preamble page 2354¹) provide for the authority to protect habitat that is not directly linked to the productivity of managed species. The criteria used in the Plan Team evaluation seemed to emphasize the need for a demonstrable linkage between the proposed HAPC and the productivity of rockfish. The Council should clarify their intent to require demonstration of the importance of dense coralline habitats to the productivity of managed species before any action is taken. The SSC believes that this is a very high standard of evidence and may not be consistent with Council's precautionary approach. The SSC recognizes that there are high costs and a long time frame required to achieve a scientifically credible understanding between these habitats and fish productivity. The SSC suggests that an evaluation of the efficacy of precautionary measures in sustaining sensitive marine habitats be conducted in the near future. It is anticipated that this type of analysis would assist in identifying the amount of habitat that should be protected and the types of protection measures that would be most effective in sustaining sensitive marine habitats.

Specific Comments about the EA

All proposals advanced for consideration as alternatives should be represented in a consistent manner; either in terms of areas proposed for additional gear restrictions or as areas that are not proposed for additional gear restrictions. We note that proposal 14 was the only proposal expressed on maps, figures and tables in terms of areas not proposed for additional gear restrictions.

Analysis of HAPC proposals should consider cumulative benefits and costs as well as incremental benefits and costs. That is, while it is important to judge the benefits and opportunity costs of protecting specific sites, it is also important to identify the cumulative benefits and cumulative opportunity costs of protecting all sites. In addition to examining the cumulative effects of concurrent actions, it is important to explore cumulative effects of sequential actions.

The review of the opportunity cost of displaced fishing effort should be based on the full history of commercial fishing to account for shifts in fishing effort that follow shifts in the distribution and abundance of targeted stocks. For instance, the long history of red king crab fisheries in the Aleutian Islands is not reflected by the limited data obtained for the recent fishery on Petrel Bank. The review should be based on individual fisheries to highlight effects on individual sectors.

The potential use value associated with HAPC areas should include a brief discussion of possible opportunities for ecotourism. There should also be a discussion of possible benefits or costs to permitting or prohibiting sport fishing in areas designated HAPC.

The potential for effects on harvest should include a discussion of the potential that HAPC designation could preclude future opportunities to harvest in areas where fishing does not presently occur but may occur in response to changes in regulatory restrictions (e.g., Steller sea lion closure areas), changes in the abundance or spatial distribution of fish populations, or changes in the market demand for currently harvested or unharvested species.

The analysis of potential effects on fishing should include a discussion of the salmon and jig fisheries that

¹ Preamble January 17, 2002 FR 67 page 2354 subsection "Response B"

"It is not appropriate to require definitive proof of a link between fishing impacts to EFH and reduced stock productivity before Councils can take action to minimize adverse fishing impacts to EFH to the extent practicable. Such a requirement would raise the threshold for action above that set by the Magnuson-Stevens Act. The final rule encourages Councils to use the best available science as well as other appropriate information sources when evaluating the impacts of fishing activities on EFH, and to consider different types of information according to its scientific rigor."

occur in the HAPC and a judgment of the potential impacts of those fisheries.

The SSC is concerned that analysis of the potential ecological and economic impacts of HAPC designation has been impaired by lack of access to confidential data on catch magnitude, composition, and location information.

Table ES-3 of the draft socioeconomic analysis and associated text should be revised to replace "significant" with another term (e.g., substantive, non-minimal, possible) to avoid possible confusion with NEPA usage of "significance" or traditional usage of "significance" as a measure of the magnitude of estimated parameters or confidence in the conclusion of hypothesis testing.

EFH 5-Year Review & Update Plan

Boundaries/Scope of the 5-year review

The EFH Final Rule requires 'a review and revision of EFH components' be completed every 5 years, and EFH provisions be revised or amended, as warranted, based on available information. Each FMP contains the following EFH components:

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
10. Review EFH every 5 years

The EFH Final Rule continues that the review should also evaluate:

- published scientific literature
- unpublished scientific reports
- information solicited from interested parties
- previously unavailable or inaccessible data.

Expectations

The 5-year EFH review will result in a summary report for the Council that will identify whether any refinements to EFH are needed or suggested, and what information gaps there might be. The review will fulfill the FMP requirement to complete a 5-year review of EFH, and the report will document the review. As part of the review process, new EFH descriptive concepts may surface that will be useful for future application. Further, as this is the first time the 5-year review is being conducted, it will establish a process applicable for future 5-year reviews.

Methodology for EFH Review

1. Review 10 EFH components in the 5 Council FMPs (BSAI groundfish, GOA groundfish, BSAI King and Tanner crab, Scallop, Salmon). Reviewer should note areas where changes to the EFH components might be warranted. For further detail by component, see Tasking section immediately following.
2. First draft review of 10 components to be completed by September 1, 2009, and distributed to the members of the crab and groundfish Plan Teams
3. Consult with Plan Teams for crab and groundfish (September 16, 2009), and scallop (February, 2009), and for salmon, consult with Ed Farley, NMFS Auke Bay Lab (consider whether to invite Ed to Joint Plan Team meeting?)

4. Prepare draft EFH 5-year review summary report for December Council meeting (mailing November 20, 2009). Include summary of whether changes to the FMPs are warranted. Contents of Council summary report will include:
 - A. Review of 10 EFH components, documenting how the review was conducted, what new information is available relating to that component, and whether it agrees or disagrees with the information that is currently in the FMP
 - B. Possible changes to the 10 EFH components in the five FMPs
5. If the Council decides to initiate FMP amendments, prepare amendments and any associated analysis to update EFH components in FMPs. Note, any change to the FMP text (which includes all 10 EFH components) must be implemented through an FMP amendment. The degree of analysis require to implement the change will vary based on whether the proposed amendment is a substantive change (e.g., a change in the EFH description), or a technical one (e.g., minor changes to the life history information).

5-year Tasks completed to date

- EFH Review & Update Plan went before the Council (12/08). No major comments.
- Established EFH Review Workgroup, teleconferences February, March.
- Developed the Review plan.
- Begun assembling existing EFH Description Data and Habitat Assessment Reports (HARs).
- Begun assembling substrate and habitat mapping info.
- Prepared example review of scallop EFH Description, HAR, FMP, and SAFE for February '09 Scallop Plan Team.

Tasking for EFH 10 component review, to prepare for September Crab and Groundfish Plan Team meeting

EFH FMP Component	Plan for review	Who completes draft for September Plan Team meeting?
1. EFH Descriptions and Identification	Identify and evaluate new scientific literature and information from other, relevant sources, to see whether species-specific EFH description and identification, as written in the FMPs, is correct. Edit the FMP text if appropriate.	<ul style="list-style-type: none"> • LEAD: stock assessment authors • Dan Ito to coordinate groundfish assessment authors, Bob Foy to coordinate crab authors, and Greg Rosenkranz to coordinate scallop review. Matt Eagleton will coordinate salmon review. • HCD (Matt Eagleton and John Olson) will prepare first cut at worksheets citing new habitat information since EFH EIS (Appendix 1).
2. Fishing activities that may adversely affect EFH	An update of the model is not planned as part of the 5-year review. Instead, the various inputs to the model will be evaluated to see how they compare with the model inputs from 2004 (a. distribution of the fishery, b. species recovery rates, c. gear changes in the fisheries that may affect habitat), to show whether there has been the impacts analysis from the EIS is likely to be similar.	<ul style="list-style-type: none"> • LEAD: Jeff Fujioka, Craig Rose, and Angie • John Olson to help prepare evaluation of fishery distribution

EFH FMP Component	Plan for review	Who completes draft for September Plan Team meeting?
3. Non-Magnuson-Stevens Act fishing activities that may adversely affect EFH	Review whether there have been changes in current halibut and State water fisheries, compared to EFH analysis. Identify sources of new information that may shed light on analysis of the impact of these fishing activities.	<ul style="list-style-type: none"> • LEAD: Diana Evans • Diana will coordinate with ADF&G staff to complete this review
4. Non-Fishing activities that may adversely affect EFH	Review whether there have been changes to non-fishing activities affecting habitat since the EFH analysis. Identify sources of new information that may shed light on analysis of the impact of non-fishing activities.	<ul style="list-style-type: none"> • LEAD: Jeanne Hanson and AKRO HCD
5. Cumulative impacts analysis	Review cumulative impacts discussion in FMPs, and evaluate against new information.	<ul style="list-style-type: none"> • LEAD: Matt Eagleton • With assistance from John Olson, Diana Evans, others as appropriate
6. EFH Conservation and Enhancement Recommendations	Review EFH recommendations, and evaluate against new information to see whether updates are warranted.	<ul style="list-style-type: none"> • LEAD: Matt Eagleton, with assistance from John Olson, Diana Evans, others as appropriate
7. Prey species list and any locations	Based on review of new information (Component 1), review prey species information, and determine whether updates are warranted.	<ul style="list-style-type: none"> • LEAD: stock assessment authors (see Component 1 for coordinators, also Appendix 1)
8. HAPC identification	Review will summarize Council's consideration of re-establishing HAPC priorities, scheduled for June 2009. As appropriate, based on species-specific review of EFH, stock assessment authors or Plan Teams may suggest candidate HAPC areas that could be considered by the Council in the next HAPC priority cycle.	<ul style="list-style-type: none"> • LEAD: Matt Eagleton and Diana Evans • Stock assessment author input
9. Research and Information needs.	Based on review of new information (Component 1), review research and information needs, and determine whether updates are warranted.	<ul style="list-style-type: none"> • LEAD: stock assessment authors (see Component 1 for coordinators, also Appendix 1)
10. Review EFH every 5 years.	Summary report represents EFH 5-year review.	

General Timeline

2009	Review SAFEs Prepare any EFH Refinements/Changes Plan Team Reviews
2010	Council Review Amend FMPs as needed.

Specific Timeline & Schedule

2009	Overall tasks for 2009:	
		<ul style="list-style-type: none"> • Assess information gaps and new information • Stock expert review • Plan Team feedback
February 19	Scallop Plan Team meeting	Brief PT on plans for EFH 5-year review, get input on new habitat information on scallops, make contact with stock assessment author for EFH review
February-March		Prepare template (based on scallop stock) for stock assessment author review. Template should include (a) current FMP EFH text, (b) worksheet identifying any new or inconsistent habitat information (since the 2005 EFH EIS), (c) questions to solicit input on 10 EFH components
March		Distribute template and worksheets to crab stock assessment authors (through Bob Foy?)
March-May		Crab assessment authors review and edit FMP text and worksheets, for presentation at May PT
March-September		Prepare review of other 9 EFH components, including fishing and non-fishing effects on habitat, and cumulative impacts review
March 30-April 1	Council meeting	Review methodology for EFH 5-year review with Council's SSC
May		Distribute template and worksheets to groundfish stock assessment authors (through Dan Ito)
May-September		Groundfish assessment authors review and edit FMP text and worksheets, for presentation at Sept PT
September 16	Joint Crab and Groundfish Plan Teams meeting	PTs to (a) review any proposed changes to FMP EFH text, based on stock assessment author review, and (b) provide input on review of 10 EFH components (including individual species EFH, fishing and non-fishing effects on habitat, and cumulative impacts). PTs will recommend whether changes to EFH descriptions and identification are needed, or other changes to EFH components that would require an FMP amendment.
September – December		Assess PT recommendations and update information. Prepare Draft Summary Report for Council.
December 7-15	Council meeting	Draft Summary Report for Council Review (tentative). Update Council on progress with EFH review, provide indication as to whether FMP amendments are likely to be required (based on PT recommendations and other comments/review)

2010	Overall tasks for 2010: <ul style="list-style-type: none"> • SSC, AP, and Council review • Final Council decision • Implement any changes through FMP amendment <p>Note: all changes to the FMP text, however minor, must be implemented through an FMP amendment. The degree of analysis required to implement an FMP change will vary based on whether the proposed amendment is a substantive change (e.g., a change in the EFH description), or a technical one (e.g., minor changes to the life history information).</p>	
January – June		Prepare any amendments required to change FMP EFH text for any of Council's 5 FMPs. Determine level of analysis required to support FMP amendment.
February	Scallop Plan Team meeting	PT to (a) review any proposed changes to FMP EFH text, based on stock assessment author review, and (b) provide input on review of 10 EFH components (including individual species EFH, fishing and non-fishing effects on habitat, and cumulative impacts). PT will recommend whether changes to EFH descriptions and identification are needed, or other changes to EFH components that would require an FMP amendment.
May	Crab Plan Team meeting	Opportunity for PT to review proposed FMP amendments if appropriate
June	Council meeting	Initial review of FMP amendments to change FMP EFH text
September	Joint Groundfish Plan Team meeting	Opportunity for PT to review proposed FMP amendments if appropriate
October	Council meeting	Final action on FMP amendment(s) to change FMP EFH text

Issues that have been raised/addressed

- **2-phase approach: 1) review and 2) update as necessary.** The EFH workgroup discussed different approaches for the EFH review, and agreed that the first phase, culminating in a summary report to the Council, should consist of a review of new information on EFH, but should stop short of an analysis of potential changes. The review report will highlight areas where change may be warranted, but will not include a detailed NEPA or other analysis of the impacts of any proposed change. The report will be presented to the SSC, AP, and Council. If the Council chooses to update its FMP(s) to reflect the proposed changes, FMP amendments will be prepared, and the appropriate analytical requirements will be determined at that time.
- **Fishing effects model.** The workgroup discussed whether to re-run the fishing effects model, and decided that for the summary report, this would not be necessary. Instead, staff will examine the inputs to the model (fishery distribution, effort by gear type, and species recovery rates) to see whether these have changed since the model was run for the 2005 EIS. This comparison will be documented in the summary report, and will inform the Council of whether the model needs to be re-run. Also, the model also uses the species EFH descriptions as an input; if the EFH descriptions are recommended to be changed, following the summary report, the model may need to be re-run at that time.

- **Inconsistencies between EFH species descriptions, and species categories used in the FMP and TAC-setting.** Currently there are slight inconsistencies between EFH species descriptions and how the stocks are managed and/or referenced. For example, the FMP lists Demersal Rockfish as a category, however no such category exists in EFH. Rather EFH is described for each rockfish species. The workgroup discussed whether this would make it difficult to assess effects to that stock in TAC-setting or other FMP review, when the EFH species are not categorized in the same manner. The workgroup decided to retain the current method of describing EFH by single species life stages, and not to categorize or merge single species into a complex as per FMP.
- **Soliciting information from interested parties.** The draft summary report that is presented to the Council will be distributed to the public, and the public and any interested parties will be invited to provide input on the EFH review before it is finalized.
- **No salmon plan team.** As there is no Council Plan Team for the Salmon FMP, the review will rely on the expertise of Ed Farley, of NMFS Auke Bay Laboratory, to review and provide recommendations on changes to salmon EFH.

Workgroup

Name	Agency	Title	Phone	Email
Diana Evans	NPFMC	Council Coordinator	907.271.2809	diana.evans@noaa.gov
Matthew Eagleton	NMFS / HCD	EFH Coordinator	907.271.6354	matthew.eagleton@noaa.gov
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Mike Sigler	NMFS / AFSC	HEPR Program Leader BSAI Plan Team	206.789.6094	mike.sigler@noaa.gov
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Jim Ianelli	NMFS / AFSC	GOA Plan Team Chair	206.526.6510	jim.ianelli@noaa.gov
Loh-lee Low	NMFS / AFSC	BSAI Plan Team Chair	206.526.4190	loh-lee.low@noaa.gov
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Gretchen Harrington	NMFS / SF	Scallop Plan Team BSAI Crab Plan Team	907.586.7445	gretchen.harrington@noaa.gov
Jon Heifetz	NMFS / AFSC	GOA Plan Team	907.789.6054	jon.heifetz@noaa
Ed Farley	NMFS / AFSC	Pacific Salmon	907.789.6085	ed.farley@noaa.gov
Robert Foy	NMFS / AFSC	BSAI Crab Team GOA Groundfish Plan Team	907.481.1711	robert.foy@noaa.gov
Gregg Rosenkranz	ADFG	Scallop Plan Team	907.486.1858	gregg.rosenkranz@alaska.gov

Other EFH and Regional Information

National EFH Mapper Tool

Newest program. Application and links to all regional EFH Data. This is the simplest site for EFH. http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/GIS_mapper.htm

AKR

EFH Text. EFH EIS Appendix D, specifically Section D.3. This is current EFH, as described. <http://www.fakr.noaa.gov/habitat/seis/efheis.htm>

EFH Maps. Older map program is still valid and can be used for union of species and other relational applications. www.fakr.noaa.gov/habitat/efh

Fishing Effects Model. EFH FEIS Appendix B.

<http://www.fakr.noaa.gov/habitat/seis/efheis.htm>

NWR

<http://marinehabitat.psmfc.org/gis-data.html>

<http://marinehabitat.psmfc.org/interactive-maps.html>

PIR

<http://www.wpcouncil.org/maps.htm>

NER

<http://www.nero.noaa.gov/hcd/index2a.htm>

SER

http://ocean.floridamarine.org/efh_coral/ims/viewer.htm

http://ocean.floridamarine.org/efh_coral/ims/Description_Layers.htm

Appendix 1

Material for stock assessment author for species-specific EFH review ("template")

- Word file of FMP text for each species, for review/editing
 - FMP text that addresses the following EFH components: (1) EFH description and identification, (7) prey species list and any locations, (9) research and information needs
 - Mark up the FMP text in track changes, so any suggested edits can be reviewed by the Plan Teams and the SSC/Council
- Worksheet A - list any new habitat information since EFH EIS (2004), that may be relevant to the FMP/EFH review
 - initially filled out by HCD and augmented by stock assessment author
 - will be used to document EFH 5-year review
 - according to EFH Final Rule, should evaluate: published scientific literature, unpublished scientific reports, solicited information from interested parties, previously unavailable or inaccessible data
- Worksheet B – make determinations on whether the species-specific EFH text is accurate, and provide input on other EFH components, based on species-specific EFH review
 - Identify where changes to the EFH text may be appropriate (should dovetail with the FMP text word file in track changes)
 - Other EFH components: (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
 - Any suggestions for HAPC candidate areas, to be forwarded to Council as part of a future HAPC proposal process

Worksheet A – Species-specific habitat information

FMP Date: _____
SAFE Last Revision Date: _____

Please review the FMP text, provided to you in a word file (make any edits in track changes). This worksheet is for documenting new information (available since the EFH text for your species was prepared) that may affect the identification of essential fish habitat (EFH) descriptions for your species. Much of this information may already be documented in the SAFE report, in which case please provide a brief statement of the change and reference that document.

Review Items

During review, document any notable or new findings/issues for the following:

1. Biology

Issue	FMP Section / Page	Comments
		REPEAT TABLE AS NECESSARY FOR OTHER ITEMS

2. Habitat
3. Prey
4. Ecosystem Considerations
5. Population Trends
6. Research
 - a. Strategy
 - b. Gaps
 - c. New
7. Publications & Literature
8. Unpublished Data (list source; approximate timing of release)
9. Conservation and Management Measures
 - a. Effort Reduction
 - b. Gear Modifications
 - c. Conservation Areas
 - d. Conservation Recommendations

Worksheet B – Determinations on whether EFH text needs to be changed, species-specific

1. EFH Description Update

Does new information warrant change to EFH Description? Y or N
If yes, explain.

Does new description and any associated information change the level of information known for the species life stage (i.e., not-identified to Level 1; Level 1 to 2)?

2. Research and Information Needs

Do data gaps exist? Y or N
If yes, list.

Is information most recent and best available? Y or N.
If no, explain.

3. Fishing Activities

Does fishing activity have more than temporary or minimal affects? Y or N.
If yes, explain.

If yes, does fishing activity have an adverse affect to EFH? Y or N
If yes, explain.

4. Cumulative Impacts

Are cumulative affects discussed? Y or N
If no, explain.

5. Habitat Areas of Particular Concern (HAPC)

Are there ecologically significant, rare, or sensitive sites particularly vulnerable to human perturbation? Y or N
If yes, list.

6. Non-fishing Activities

Are any non-fishing activities known to be affecting the stock? Y or N or Unknown
Explain, if possible.

7. Priorities

Are there any priorities for EFH Conservation?
Explain.

DIRECTOR
BRUCE M. LEAMAN

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INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AND THE UNITED STATES OF AMERICA

COMMISSIONERS:

JAMES BALSIGER
JUNEAU, AK
RALPH G. HOARD
SEATTLE, WA
LARRY JOHNSON
PARKSVILLE, B.C.
PHILLIP LESTENKOF
ST. PAUL, AK
LAURA RICHARDS
NANAIMO, B.C.
GARY ROBINSON
VANCOUVER, B.C.

March 24 2009

Mr. Eric Olsen, Chair
North Pacific Fishery Management Council
605 West 4th avenue, Suite 306
Anchorage, AK 99501-2252

Re: April 2009 Agenda Item D-1(a): Halibut sorting EFP

Dear Eric,

The staff of the International Pacific Halibut Commission (IPHC) has reviewed the draft application for an Exempted Fishing Permit (EFP) to evaluate the ability of deck sorting procedures to reduce discard mortality rates of Pacific halibut bycatch on Amendment 80 Bering Sea trawl vessels. The experiment, proposed by the Best Use Cooperative, will evaluate alternative handling procedures through on-deck sorting as a means to return halibut to the water more quickly than is currently allowed or permitted by Amendment 80. As an incentive for the vessels involved, the applicant has requested that any mortality savings achieved through reduced discard mortality be credited back to the vessels.

The IPHC staff supports this project. Our experience with evaluating deck sorting procedures has shown that mortality can be reduced with improvements in handling procedures aboard trawl catcher vessels. Current requirements for the unsorted catch to go below deck for sampling admittedly facilitates observer sampling but inevitably mandates higher mortality rates than those that could be achieved through more rapid return of halibut to the sea. We believe that alternatives exist which would allow for observer sampling on deck, and the participating trawl operators are willing to change their practices to accommodate the alternatives being evaluated.

The proposal also includes a request for changes to the NMFS bycatch accounting procedures, such that any savings created by demonstrating lower mortality rates are credited back to the vessels for additional fishing time. The IPHC staff sees no problem with this request, as the fishery will be operating under the fishery's PSC limit so that total mortality will be constrained to the Council's prescribed limit. Our understanding is that this request would require changes how bycatch is tracked within season by NMFS. We encourage NMFS to seek appropriate solutions to this request so that the mortality reduction alternatives can be fully evaluated.

Sincerely,



Bruce M. Leaman
Executive Director

cc: Commissioners

DIRECTOR
BRUCE M. LEAMAN

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Sincerely,



Bruce M. Leaman
Executive Director

cc: Commissioners

**FISHING VESSEL OWNERS' ASSOCIATION
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LATE COMMENT

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March 24, 2009

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N.P.F.M.C.

Mr. Eric Olson, Chairman
North Pacific Fishery Management Council
605 W. 4th Ave., Ste 306
Anchorage, AK 99501-2252

RE: EFP – Applications from Best Use Cooperative (BUC Agenda Item D-1)

Dear Chairman Olson:

We have reviewed the BUC EFP to study reducing mortality of halibut in non-pelagic trawl fisheries. The EFP will be reviewed under agenda item D-1 entitled, "Other Groundfish Issues."

The EFP will focus on increasing the survival rate of Pacific halibut in the non-pelagic fisheries of Bering Sea cod, flathead sole, and other flat fish. The proposed actions to develop new accounting and discharge methods while halibut are on deck are the reasons this work needs to be conducted under an EFP. Currently, the regulations require all the fish caught to be dumped in the holding tanks. This can result in a two hour delay before the halibut are counted and returned to the sea. Catch handling regulations do not allow for any pre-sorting of the catch while on deck. This EFP would attempt to find appropriate accounting methods and provide a special chute for getting halibut over quickly.

Fishing Vessel Owners' Association (FVOA) is supportive of this EFP and encourages the Council's support for it. It is our understanding by the authors of the EFP that the halibut PSC used in their effort are not in addition to the current CAP but are the part of BUC's PSC allocation under Amendment 80.

In summary, members of FVOA have met with the authors of this EFP and support BUC's efforts as outlined in the proposal.

Sincerely,



Robert D. Alverson
Manager

RDA:cmb



SECRET

