

BSAI Pacific cod Allocations
Discussion Paper & Annotated Motion
January 21, 2005

In October 2004, the Council modified the elements and options for BSAI Amendment 80 and removed Pacific cod allocations from that amendment package. The intent was to streamline the analysis and shift it back to its original intent, to provide the non-AFA trawl catcher processor sector with a tool to meet the groundfish retention standards adopted in BSAI Amendment 79. The Council also reaffirmed that modifications to the Pacific cod allocations could be addressed in a separate amendment. To that end, the Council initiated a discussion paper as a starting point for a new plan amendment to alter the current BSAI Pacific cod allocations.

In December 2004, the Council reviewed a discussion paper outlining prior Council actions regarding BSAI Pacific cod allocations, the relevant problem statements associated with these actions, and potential decision points related to structuring new alternatives and options for analysis. Upon review of the discussion paper, the Council approved a problem statement and a strawman document outlining draft components and options for the new amendment. The problem statement focuses on two issues: **1) BSAI Pacific cod allocations to all gear sectors (trawl, jig, hook-and-line, and pot); and 2) apportionment of the BSAI Pacific cod sector allocations between the BS and AI subareas.** The first part of the problem statement notes the annual inseason reallocations of TAC among gear sectors and concerns that the current BSAI Pacific cod allocations do not adequately reflect actual use by sector. The second part of the problem statement addresses the need to establish a methodology by which to maintain sector allocations and minimize competition among gear groups, should the BSAI Pacific cod TAC be apportioned between the BS and AI subareas during a future specifications process. The Council's December motion is attached as C-6(b).

The Council's current motion represents a scoping document for public consideration. The sectors for which BSAI Pacific cod allocations are proposed are:

- AFA Trawl CPs
- Non-AFA Trawl CPs
- AFA Trawl CVs
- Non-AFA Trawl CVs
- Hook-and-line CPs
- Hook-and-line CVs $\geq 60'$
- Pot CPs
- Pot CVs $\geq 60'$
- Hook-and-line and pot CVs $< 60'$
- Jig CVs

The primary difference between the Council's December motion and the options previously provided under Amendment 80 is the absence of eligibility requirements for each sector – the Council's stated intent being to simplify the action and focus only on sector allocations. At this February meeting, the Council is looking for specific feedback on the following:

- 1) options for allocating halibut PSC among the trawl sectors (Part B, Components 1 and 2);
- 2) how (or whether) to consider catch history from the nine catcher processors whose fishing rights were extinguished under the AFA; and
- 3) whether there is a need for eligibility requirements for specific sectors.

This discussion paper is intended to identify potential issues with the motion and assist in further defining the current components and options. **Part I includes a discussion of prior Council actions on BSAI Pacific cod allocations. Part II outlines the various eligibility requirements currently established for each sector.** It also provides information on the number of active licenses in each gear sector in the BSAI Pacific cod fishery. **Part III is an annotated version of the motion,** which provides a discussion of each provision and potential issues or decision points associated with the provision. **The action at the February meeting is to revise and refine the current suite of elements and options to modify the BSAI Pacific cod allocations.** Initial Council review of the analysis has not yet been scheduled.

PART I: Prior Council actions on BSAI Pacific cod allocations

The BSAI Pacific cod fishery is targeted by multiple gear types, primarily by trawl gear and hook-and-line catcher processors, and smaller amounts by hook-and-line catcher vessels, jig, and pot gear. This is a fully prosecuted fishery, with a 2004 TAC of 199,338 mt and a 2005 TAC of 190,550 mt (excluding the 7.5% CDQ reserve each year). The BSAI Pacific cod TAC has been apportioned among the different gear sectors since 1994 (trawl, fixed, and jig gear split), and a series of amendments have modified or continued the allocation system. Thus, the current BSAI Pacific cod allocations were established using a step-wise approach. Currently, Federal regulations at 50 CFR 679.20(a)(7) authorize distinct BSAI Pacific cod allocations for the following sectors:

- Jig vessels
- Trawl catcher processors
- Trawl catcher vessels
- Hook-and-line catcher processors
- Hook-and-line catcher vessels
- Pot catcher processors
- Pot catcher vessels
- Hook-and-line and pot catcher vessels <60' LOA¹

Table A-1 (attached) provides a reference sheet for each of the past amendments and its primary provisions. In brief, the Council first allocated BSAI Pacific cod among the trawl (54%), fixed (hook-and-line and pot) (44%), and jig (2%) sectors in 1994 under **Amendment 24**. These allocations roughly represented the existing harvests of each sector during 1991 – 1993, with the exception of the jig sector. The 2% jig allocation exceeded the historical harvest percentage and was intended to allow for growth in that sector. The Council designed this allocation scheme such that it would expire at the end of 1996. The intent of Amendment 24 was to provide stability in the trawl, fixed, and jig gear fisheries by establishing designated allocations of the Pacific cod TAC, which were expected to increase the net benefits received from the harvest of Pacific cod.

A few years later, the Council extended and modified the allocations authorized above under **Amendment 46**. This amendment allocated the BSAI Pacific cod TAC (non-CDQ) as follows:

- 51% fixed gear
- 47% trawl gear (50% trawl CVs, 50% trawl CPs)
- 2% jig gear

¹ Note that while the <60' fixed gear (hook-and-line and pot) catcher vessels receive a separate allocation of BSAI Pacific cod, these vessels fish off the general hook-and-line catcher vessel and pot catcher vessel allocations, respectively by gear type, when those fisheries are open.

The trawl gear allocation was further split between trawl catcher processors (50%) and trawl catcher vessels (50%), such that each sector receives 23.5% of the non-CDQ BSAI Pacific cod TAC. These allocations were the result of an industry negotiating committee appointed by the Council, which selected percentages that closely represented the current harvest percentages taken by the trawl and fixed gear sectors. While there is no sunset provision or regulatory requirement to review or modify these allocations, the Council's motion on Amendment 46 included a provision to review the allocations four years after implementation. This review, originally intended at the end of 2000, has not yet occurred.

Vessels began fishing in Federal waters off Alaska under the License Limitation Program (LLP) on January 1, 2000. Since the LLP was approved, changes in the fixed gear fleets prompted industry to petition the Council to further allocate cod in the BSAI among the various sectors of the fixed gear fleets.

Amendment 64, approved by the Council in October 1999, further apportioned the 51% of the BSAI Pacific cod TAC allocated to fixed (hook-and-line and pot) gear as follows:

- 80% hook-and-line catcher processors
- 0.3% hook-and-line catcher vessels
- 18.3% pot vessels (CP and CV)
- 1.4% hook-and-line and pot vessels <60' LOA

The percentage allocations selected closely represent the harvests in this fishery during 1995 - 1998, with a separate allocation for catcher vessels <60' LOA in order to allow for growth in the small boat sector. In addition to the fixed gear apportionments, Amendment 64 addressed how to reallocate quota that was projected to remain unused by specific sectors. Any unused hook-and-line catcher vessel or <60' vessel allocation would be reallocated to the hook-and-line catcher processor sector, largely because that sector primarily 'funded' the <60' allocation. In addition, any unused jig or trawl allocations would be reallocated 95% to hook-and-line catcher processors and 5% to pot gear. This split reflected the actual harvest of reallocated quota from the trawl and jig sectors by each sector during 1996 - 1998.

At the same time the Council approved Amendment 64, it acknowledged that a further split between the pot sectors might be necessary to stabilize the harvests of pot catcher processors and pot catcher vessels in the BSAI Pacific cod fishery. Concern was expressed that the pot sector needed the same stability of direct fleet allocations, such as was done for the hook-and-line fleets. With several years of reduced opilio guideline harvest levels, the BSAI Pacific cod fishery realized an influx of pot vessels that previously fished primarily crab in the BSAI. The pot catcher processor sector petitioned the Council for a further split between the pot sectors, recognizing that a pot split would enable the pot catcher processor sector to avoid competing with a fluctuating and increasing number of pot catcher vessels moving into the cod fishery, and allow the sector to determine it's best time to fish due to marketing factors. Increased competition for 'A season' Pacific cod was the driving factor in the need for the overall pot split and the split between the pot sectors.

The fixed gear allocations under Amendment 64 became effective on Sept. 1, 2000. Because the amendment was designed to sunset on December 31, 2003, it necessitated approval of a new plan amendment to either continue or modify the fixed gear apportionments beyond 2003. Like the original action, **Amendment 77** was intended to respond to concerns that, absent a gear split, there is no mechanism to prevent one sector from increasing its effort in the fishery and eroding another sector's relative historical share.

The allocations approved under **Amendment 77** are as follows:

- 80% hook-and-line catcher processors
- 0.3% hook-and-line catcher vessels
- 15.0% pot catcher vessels
- 3.3% pot catcher processors
- 1.4% hook-and-line and pot vessels <60' LOA

Under Amendment 77, the Council approved continuing the same overall fixed gear allocations under which the fixed gear Pacific cod fisheries had been operating since 2000, with an additional split between the pot sectors.² The apportionment among the hook-and-line catcher processors, hook-and-line catcher vessels, and pot vessels was based closely on 1995 - 1998 or 1995 - 1999 harvests by sector, and the new apportionment between the pot sectors was based on catch history during 1998 - 2001.

Note that all of the recent BSAI Pacific cod allocation amendments also provide direction on how to reallocate quota that is projected to remain unused by a particular sector at the end of the year (see **Table A-1**). Since the BSAI Pacific cod allocations have been in effect, NMFS has reallocated quota each year from the trawl and jig sectors to the pot and hook-and-line sectors. The primary change from the status quo with regard to reallocations under Amendment 77 was to apportion the jig sector's allocation (2% of the BSAI Pacific cod TAC) on a trimester basis (40% - 20% - 40%) and reallocate any unused jig quota to the <60' vessels using hook-and-line or pot gear near the end of each jig season. This allows the <60' pot and hook-and-line vessels to receive additional quota during the spring and summer months when it is most advantageous for the small boat fleet.³ It was also intended to reduce the risk of having to close the fishery intermittently while it waits for a potential reallocation from the jig sector. Previously, both unused jig and trawl quota was reallocated 95% to the hook-and-line catcher processors and 5% to pot sectors. Amendment 77 retained this distribution for reallocating unused *trawl* quota, with an additional split for the pot sectors (0.9% to pot catcher processors; and 4.1% to pot catcher vessels).

Recall that the <60' fixed gear fleet first received a separate allocation in September 2000 under Amendment 64, and this fleet harvested its entire allocation in 2002 and 2003. In 2004, the first year in which reallocations from the jig sector were available, this sector harvested its initial allocation plus about 500 mt of reallocated jig quota (of a total of 1,545 mt reallocated in early April). Recall also that this sector can currently fish off of the general hook-and-line CV allocation and general pot CV allocation when these fisheries are open. Preliminary data for 2004 indicate that the <60' fixed gear fleet harvested an estimated 3,030 mt, about one-third of which was attributed to the general fixed gear allocations for hook-and-line and pot CVs.

In sum, the existing overall allocations to the trawl, fixed, and jig gear sectors have been in place for eight years (since 1997), and the further split among the fixed gear sectors has been in place for a little over four years (since September 2000). The separate allocations between the pot catcher processor and pot catcher vessel sectors have only been in place for one year (2004). More detail on the current allocations and the annual reallocations among sectors is provided in the annotated motion in Part III.

²In June 2002, the Council considered BSAI Amendment 68 to create separate allocations for the pot catcher processor and pot catcher vessel sectors. Considering the pending expiration of Am. 64, the Council decided to take no action on this amendment, deferring action on pot allocations until they could be rolled into one amendment package that would also address the other fixed gear sectors (Am. 77).

³Note that the hook-and-line Pacific cod vessels do not have a halibut PSC allowance during the period June 10 – August 15, so any <60' fixed gear quota available in the summer months primarily supports a <60' pot fishery.

PART II: Eligibility requirements in the BSAI Pacific cod fisheries

Amendment 80 currently contains eligibility criteria (Component 7) to identify the license holders that would qualify to be in the non-AFA trawl catcher processor sector and thus eligible to participate in the sector allocations and cooperative structure being developed under that amendment. This criteria has evolved over the last several meetings, and is now specific to the non-AFA trawl catcher processor sector, since that is the only sector directly affected under Amendment 80 as revised.

Prior to the October 2004 Council meeting, eligibility criteria was proposed for all sectors included in Amendment 80 at that time.⁴ The eligibility criteria options were based on participation (one landing to 1,000 mt) during various series' of years (1995 – 2002). Separate qualifying requirements were proposed for the <60' fixed gear sector. These eligibility requirements were developed in the IR/IU committee process, and were not specific to Pacific cod or each particular gear type. It was also uncertain whether the eligibility requirements to participate in a sector were to be applied on an individual species basis, or for all groundfish species in aggregate.

Sector eligibility requirements were not proposed in the Pacific cod allocation amendment initiated by the Council in December 2004. The intent was to simplify the amendment and focus only on sector allocations. In addition, the Council noted that there are several eligibility requirements already in place for certain sectors. However, this is an issue that the Council highlighted for specific feedback. The remainder of this section outlines the varying levels of requirements currently in place to harvest BSAI Pacific cod in Federal waters.

LLP Requirements

The **License Limitation Program (LLP)** was implemented in 2000, and all sectors proposed to receive Pacific cod allocations under this amendment are subject to the LLP requirement when fishing non-CDQ BSAI Pacific cod in Federal waters with few exceptions. Those exceptions include: 1) vessels <32' LOA in the BSAI, and 2) jig vessels <60' LOA in the BSAI (using no more than 5 jig machines, one line per machine, and 15 hooks per line). In addition to the general LLP license, all sectors subject to the LLP requirement must also have a BS and/or AI area endorsement and the proper vessel and gear designations in order to fish BSAI Pacific cod with a particular gear and vessel type.⁵

Thus, in the current trawl Pacific cod fisheries, the only eligibility requirement is having the proper LLP license, including a BS and/or AI endorsement and trawl designation. Most jig vessels actively fishing BSAI Pacific cod are <60' LOA, thus, an LLP is not required. In the BSAI fixed gear (hook-and-line and pot) Pacific cod fisheries, however, additional LLP eligibility requirements were developed under **Amendment 67**. Under Amendment 67, vessels that are ≥60' engaged in directed fishing for BSAI Pacific cod in the Federal fisheries using fixed gear must qualify for a Pacific cod endorsement in addition to their area endorsement and general LLP license. Amendment 67 established the participation and landings criteria for each fixed gear type and vessel class that comprise the requirements for a Pacific cod endorsement. It was intended to provide a mechanism that would further limit entry into the fishery by fixed gear vessels that have not participated, or have not participated at a level that would constitute significant dependence on the fishery.

⁴The sectors included in Am. 80 prior to the action taken in October 2004 were: non-AFA trawl CPs, AFA trawl CPs, non-AFA trawl CVs, AFA trawl CVs, hook-and-line CPs, hook-and-line CVs, pot CPs, pot CVs, jig, and <60' hook-and-line and pot CVs.

⁵A vessel's groundfish license is assigned a vessel designation of catcher processor (CP) or catcher vessel (CV), and a gear designation of trawl and/or non-trawl.

The Amendment 67 eligibility requirements for a Pacific cod endorsement for the $\geq 60'$ fixed gear sectors are as follows:

1. Hook-and-line catcher processors. Must have made at least 270 mt of landings in the directed commercial BSAI Pacific cod fishery (excluding discards) in any one of the years 1996, 1997, 1998, or 1999.
2. Hook-and-line catcher vessels $\geq 60'$ LOA. Must have made at least 7.5 mt of landings in the directed commercial BSAI Pacific cod fishery (excluding discards) in any one of the years 1995, 1996, 1997, 1998, or 1999.
3. Pot catcher processors. Must have made at least 300,000 lbs of landings in the directed commercial BSAI Pacific cod fishery (excluding discards) in each of any two of the years 1995, 1996, 1997, or 1998.
4. Pot catcher vessels $\geq 60'$ LOA. Must have made over 100,000 lbs of landings in the directed commercial BSAI Pacific cod fishery (excluding discards) in each of any two of the years 1995, 1996, 1997, 1998, or 1999.

Amendment 67 was effective January 1, 2003, so has only been in place for two full years. While there remain some unresolved appeals regarding individual applications for a cod endorsement, the endorsement requirement has reduced the number of fixed gear vessels $\geq 60'$ LOA that are eligible to target BSAI Pacific cod, particularly pot vessels. Given the above requirements for the Pacific cod endorsement and the general LLP license, there are a limited number of vessel licenses that are eligible to participate in the Federal BSAI Pacific cod fishery with fixed or trawl gear. The table below shows the existing number of vessel licenses and the number of vessels that landed BSAI Pacific cod on average during 1999 – 2003.

Table 1. LLP requirements, number of vessel licenses, and number of vessels landing BSAI Pacific cod

	Trawl gear (CV and CP)	Fixed gear $\geq 60'$	Fixed gear $< 60'$ & Jig gear
Current LLP requirements in BSAI Pacific cod fishery	LLP (Includes BS/AI endorsement, trawl designation, CV/CP designation)	LLP (Includes BS/AI endorsement, non-trawl designation, CV/CP designation, and Pacific cod endorsement.*	LLP (unless meet exemptions). BS/AI endorsement, non-trawl designation, CV/CP designation.
Number of issued LLPs	154 BS/AI trawl CV (5 interim) 64 BS/AI trawl CP (3 interim)	44 H&L CP (6 interim) 10 H&L CV $\geq 60'$ (1 interim) 9 pot CP (3 interim) 67 pot CV $\geq 60'$ (13 interim)	117 BS/AI non-trawl (8 interim)
Number of vessels harvesting BSAI Pacific cod (average 1999- 03)	15 Non-AFA CVs 100 AFA CVs 22 Non-AFA CPs 13 AFA CPs	40 H&L CP 15 H&L CV $\geq 60'$ 6 pot CP 79 pot CV $\geq 60'$	17 Jig CVs 31 H&L/Pot CVs $< 60'$

Source: Number of vessel licenses is provided by the RAM database, as of January 3, 2005. Number of vessels with BSAI Pacific cod landings is provided by NPFMC staff, from Weekly Processor Reports and Fishtickets, 1995 - 2003. No 'targeting' was applied to the data, thus, some vessels' Pacific cod was likely harvested incidental to another target species. This is most notable in the trawl sector. 2003 data are considered preliminary.

*Note that Am. 67 was effective Jan. 1, 2003. For fixed gear vessels $\geq 60'$, the interim status of the license is related to an appeal of the cod endorsement in five cases. Note also that vessels are issued a Pacific cod endorsement for each gear sector for which they qualify. As of January 2005, five vessels held multiple gear endorsements.

AFA Eligibility Requirements

As stated previously, the BSAI Pacific cod trawl allocation (47%) is currently split only between the trawl catcher processor sector (23.5%) and the trawl catcher vessel sector (23.5%). The December 2004 Council motion proposes establishing four trawl sectors for the purpose of BSAI Pacific cod allocations: AFA trawl CPs, non-AFA trawl CPs, AFA trawl CVs, and non-AFA trawl CVs. It is thus important to note the current requirements under the AFA that define the AFA trawl CP and CV sectors for participation in the BSAI pollock fishery.

Section 208(e) of the AFA establishes vessel and processor eligibility to harvest and process the BSAI pollock directed fishing allowance designated for each sector under the AFA. Section 208(e) lists the 20 trawl catcher processors that are eligible to participate as trawl catcher processors under the AFA, as well as the criteria used to qualify other catcher processors that are not listed (only one additional vessel qualifies under the criteria). Section 208(a)-(c) establishes the eligibility criteria and list for catcher vessels eligible under the AFA. As of January 2005, the NMFS database indicates that 111 catcher vessels were issued AFA permits in 2005.

In addition to determining eligibility for participation in the BSAI pollock fisheries, the implementing regulations for the AFA established sideboards on the participation by AFA-qualified vessels in the other BSAI groundfish fisheries, including Pacific cod. The 20 listed AFA CPs are currently subject to an annual Pacific cod sideboard limit (12,080 mt in 2004). The one additional catcher processor that qualifies under 208(e)(21) of the AFA is limited to a small percentage of the AFA CP allocation of pollock, and is not sideboarded in other fisheries. AFA catcher vessels are also subject to an annual sideboard limit⁶ (39,055 mt in 2004) for BSAI Pacific cod. The Council elected to exempt AFA catcher vessels from the Pacific cod sideboards if their annual BSAI pollock landings averaged less than 1,700 mt from 1995 – 1997 and they made 30 or more landings of BSAI Pacific cod during that time period. The rationale for these exemptions was that many of the AFA catcher vessels with relatively low pollock catch history have traditionally targeted BSAI Pacific cod during the winter cod fishery.

There are thus 21 permitted AFA catcher processors and 111 permitted AFA catcher vessels that comprise the AFA trawl CP and AFA trawl CV sectors, respectively. Of the 21 AFA CPs, 20 are currently subject to Pacific cod sideboard limits. Of the 111 AFA CVs, 102 are subject to Pacific cod sideboard limits and 9 are exempt from the sideboards. Note that under the proposed BSAI Pacific cod allocation amendment, cod sideboards for the AFA CP and AFA CV sectors would be replaced by a direct allocation to each sector.

Eligibility Requirements under the 2005 Consolidated Appropriations Act

Lastly, the Consolidated Appropriations Act of 2005 (P.L. 108-792) (Act) establishes catcher processor sector definitions for participation in the catcher processor sectors of the BSAI non-pollock groundfish fisheries⁷ and the fishing capacity reduction program authorized by Congress. The following sectors are defined in the Act under Section 219(a): AFA trawl catcher processor, non-AFA trawl catcher processor, hook-and-line catcher processor, and pot catcher processor.

With the exception of the non-AFA catcher processor sector, the Act does not appear to establish new eligibility requirements for participating in the BSAI Pacific cod fishery as part of the catcher processor sectors. The AFA trawl catcher processor sector is defined as the owners of each catcher processor listed

⁶ The sideboard formula is based on the retained catch of AFA catcher vessels of each sideboard species from 1995 – 1997 (1997 only for BSAI Pacific cod) divided by the available TAC for that species over the same period.

⁷ The non-pollock groundfish fishery is defined as ‘target species of Atka mackerel, flathead sole, **Pacific cod**, Pacific Ocean perch, rock sole, turbot, or yellowfin sole harvested in the BSAI.’

in 208(e)(1)-(20) of the AFA.⁸ The hook-and-line catcher processor and pot catcher processor sectors are defined as the holders of an LLP license that is (or becomes) transferable, and that is endorsed for the BS and/or AI, CP, Pacific cod, and the respective gear type (hook-and-line gear or pot gear). The non-AFA trawl catcher processor sector, however, is defined differently than the status quo. The Act (Section 219(7)) specifies that this sector ‘means the owner of each trawl catcher processor:

- (A) that is not an AFA trawl catcher processor;
- (B) to whom a valid LLP license that is endorsed for BS or AI trawl catcher processor fishing activity has been issued; and
- (C) that the Secretary determines has harvested with trawl gear and processed not less than a total of 150 mt of non-pollock groundfish during the period January 1, 1997 through December 31, 2002.’

Thus, it appears that at a minimum, non-AFA catcher processors will have to meet the above criteria in order to participate in the BSAI non-pollock groundfish fisheries as part of that sector, which includes Pacific cod by definition. Note that this criteria (150 mt of non-pollock groundfish harvested and processed between 1997 – 2002) is also included as one of several options in Component 7 of Amendment 80, to define the non-AFA trawl catcher processor sector for the purpose of flatfish sector allocations and cooperative development. It is uncertain at this point whether the Council could adopt a more stringent eligibility requirement for participation in the non-AFA trawl catcher processor cooperatives under Amendment 80 (or in a new amendment for Pacific cod) than the requirement established in the Act. The Council requested legal guidance from NOAA GC on this and several other questions related to the Act in December 2004.

⁸ Note that this definition does not include any vessel that met the requirements in 208(e)(21) to be eligible to harvest the pollock directed fishing allowance allocated to CPs and CVs delivering to CPs. The Council has requested guidance from NOAA GC to determine whether the vessel that qualifies under 208(e)(21) would qualify for the non-AFA trawl catcher processor sector (provided it meets the harvest requirements defined by the Act).

PART III: Annotated Motion

The following represents an annotated version of the Council's December 13, 2004 motion on the proposed problem statement and elements and options for BSAI Pacific cod sector allocations. A clean copy of the motion is attached as **C-6(b)**. Staff annotations are included in *bold italic* type.

BSAI Pacific Cod Sector Allocations: Draft Problem Statements

1.) BSAI Pacific Cod Sector Allocations: The BSAI Pacific cod fishery is fully utilized and has been allocated among gear groups and to sectors within gear groups. The current allocations among trawl, jig, and fixed gear were implemented in 1997 (Amendment 46) and are overdue for review. Harvest patterns have varied significantly among the sectors resulting in annual inseason reallocations of TAC. As a result, the current allocations do not correspond with actual dependency and use by sectors.

Participants in the BSAI Pacific cod fishery who have made significant investments and have a long-term dependence on the resource need stability in the allocations to their sectors. To reduce uncertainty and provide stability, allocations should be adjusted to better reflect historic use by sector. The basis for determining sector allocations will be catch history as well as consideration of socio-economic factors.

As other fisheries in the BSAI and GOA are incrementally rationalized, historical participants in the BSAI Pacific cod fishery may be put at a disadvantage. Each sector in the BSAI Pacific cod fishery currently has different degrees of license requirements and levels of participation. Allocations to the sector level are a necessary step on the path towards comprehensive rationalization. Prompt action is needed to maintain stability in the BSAI Pacific cod fisheries.

2.) Apportionment of BSAI Pacific Cod Sector Allocations between the BS and AI

In the event that the BSAI Pacific cod ABC/TAC is apportioned between the BS and the AI management areas, a protocol needs to be established that would continue to maintain the benefits of sector allocations and minimize competition among gear groups; recognize differences in dependence among gear groups and sectors that fish for Pacific cod in the BS and AI; and ensure that the distribution of harvest remains consistent with biomass distribution and associated harvest strategy.

BSAI Pacific Cod Sector Allocations: Draft Elements and Options

Part I: BSAI Pacific Cod Sector Allocations

A. Allocation to Sectors

- Component 1: Identify and define sectors
- Component 2: Identify TAC to be allocated to sectors
- Component 3: Method for determining catch history
- Component 4: Sector catch history years
- Component 5: Allocation of BSAI Pacific cod TAC to sectors
- Component 6: Rollovers between sectors
- Component 7: CDQ allocation of Pacific cod

B. Apportionment of BSAI PSC to Sectors

- Component 1: Apportionment of trawl halibut PSC to the cod fishery group
- Component 2: Apportionment of the cod trawl fishery group PSC to trawl sectors
- Component 3: Apportionment of cod H&L halibut PSC between catcher processors (CPs) and catcher vessels (CVs)

Part II: Apportionment of BSAI Pacific cod Sector Allocations to BS and AI (if needed)

This part would provide a method to apportion BSAI Pacific cod sector allocations to the BS and AI areas in the event that the BSAI Pacific cod ABC/TAC is apportioned to the BS and AI areas during the annual specifications process.

- Option 1: Sector allocations remain as BSAI (with AI and BS TACs). No specific sector allocations to AI or BS. (*Council discussion paper: option 3*)
- Option 2: BS and AI sector allocations based on equal percentage from BSAI sector allocations. (*Council discussion paper: option 2*)
- Option 3: BS and AI sector allocations based on historic harvest share in AI area with remainder of BSAI allocation to be caught in the BS. Sector's BSAI allocation remains. (*Council discussion paper: option 1*)
- Option 4: BS and AI sector allocations based on historic harvest share in BS area with remainder of BSAI allocation to be caught in the AI. Sector's BSAI allocation remains. (*new, variation of Option 3*)

PART 1: BSAI PACIFIC COD SECTOR ALLOCATIONS

A. Allocation to Sectors

Component 1: Identify and Define Sectors

Identify the sectors for which catch history will be calculated. The Council may choose to allocate to combined sectors in Component 5; however, each sector's catch history will be calculated separately.

- 1.1 Sectors for which catch history will be calculated.
 - 1.1.1 AFA Trawl CPs (AFA 20*)
 - Suboption a: Include catch history of the nine trawl CPs whose claims to catch history have been extinguished by Section 209 of the AFA
 - Suboption b: Exclude catch history of the nine trawl CPs whose claims to catch history have been extinguished by Section 209 of the AFA
 - 1.1.2 H&G Trawl CPs (non-AFA Trawl CPs)
 - 1.1.3 AFA Trawl CVs
 - 1.1.4 Non-AFA Trawl CVs
 - 1.1.5 Longline CPs
 - 1.1.6 Longline CVs $\geq 60'$
 - 1.1.7 Pot CPs
 - 1.1.8 Pot CVs $\geq 60'$
 - 1.1.9 Fixed Gear CVs (pot and hook-and-line) $< 60'$
 - 1.1.10 Jig CVs

*refers to the 20 trawl CP vessels listed in Section 208(e) of American Fisheries Act

Component 1 identifies the sectors for which catch history will be calculated. Note that the sectors identified in Component 1 are the same sectors that were included in Amendment 80 prior to October 2004. It is assumed that the intent is to establish a separate allocation for each sector listed, with the possible exception of those sectors noted in Component 5. Component 5 includes options to establish a combined allocation for the jig CV sector and the $< 60'$ fixed gear CV sector only. While staff assumes that the Council has the ability to combine any sectors' allocations at final action, it may want to notice the public of that potential if desired under Component 1. Otherwise, the public may interpret the inclusion of Component 5 to mean that only the jig CV sector and the $< 60'$ fixed gear sector allocations could be combined at final action.

Option 1.1.1 provides two suboptions to include or exclude catch history from the 'AFA-9', the nine catcher processors listed in Section 209 of the AFA who were made permanently ineligible for fishery endorsements. Section 209 also extinguishes all claims associated with such vessels that could qualify the owners of the vessels for any limited access system permit. NOAA GC guidance was requested in February 2004 regarding whether the 20 catcher processors listed in Section 208(e) of the AFA could claim the non-pollock fishing history of the nine catcher processors removed from the fishery. This issue was originally raised relative to BSAI Amendment 80. NOAA GC's response (dated June 4, 2004) clarified that in making sector allocations, the Council may consider the combined non-pollock fishing history of the twenty vessels listed in Section 208(e) and the nine vessels listed in Section 209, but the allocations based upon the AFA-9 history may not be made to the owners of those vessels and any allocation must comply with the overall caps set forth under Section 211(b) (sideboards in non-pollock fisheries).

Therefore, while the Council is not required to consider the non-pollock catch history of the AFA-9, the Council has the latitude to consider that catch history as long as it does not convey an allocation to the owners of those vessels. The decision on whether to include or exclude the BSAI Pacific cod history of the AFA-9 is thus a policy decision for the Council.

Recall also that there are three non-AFA surimi and fillet catcher processors whose U.S. fishing privileges were extinguished starting in 1999. In several recent discussion papers for Amendment 80, it was noted that there needed to be a decision made on how to treat these vessels' catch (i.e., determine to which sector these vessels' history should be attributed, if any). The Council has not provided direction on this issue to date. Unless directed otherwise, staff would assume that this sector's BSAI Pacific cod catch history would not be used in making any sector allocations under this amendment.

Lastly, note that the AFA trawl CP sector as defined under Section 1.1.1 does not include the one catcher processor that harvests BSAI pollock under Section 208(e)(21) but is not listed in the AFA. One possibility is that this vessel would be included in the non-AFA CP sector for the purpose of establishing BSAI Pacific cod allocations. Staff will follow NOAA GC guidance provided on this issue.

Component 2: Identify TAC to be allocated to sectors

The BSAI Pacific cod TAC that is to be allocated to sectors is TAC less CDQ. In addition, the annual incidental catch allowance (ICA) for fixed gear would be deducted (off the top) from the aggregate amount of the BSAI Pacific cod TAC allocated to all of the fixed gear sectors combined (status quo).

Component 2 clarifies the meaning of 'BSAI Pacific cod TAC' that is to be allocated to the sectors identified in Component 1. This component accounts for the CDQ Program allocation of BSAI Pacific cod (currently 7.5% of the TAC), as well as the incidental catch allowance (ICA) that is deducted annually from the total hook-and-line and pot gear allocation of the BSAI Pacific cod TAC. Pacific cod are taken incidentally in directed fisheries for other species. To the extent practicable, NMFS credits this incidental harvest against the TAC to ensure that Pacific cod are not overharvested. NMFS annually establishes an ICA for Pacific cod taken in other directed hook-and-line and pot groundfish fisheries. Since 2000, an ICA of 500 mt⁹, has been deducted from the hook-and-line and pot gear allocation of the Pacific cod TAC before the allocation is apportioned to the separate fixed gear sectors.

The only fisheries in which NMFS specifies an ICA in the annual harvest specifications process are BSAI hook-and-line and pot Pacific cod, Bering Sea pollock, and now Aleutian Islands pollock. Like most other fisheries, the trawl Pacific cod fishery does not have an ICA established at the beginning of the year. However, if NMFS (Regional Administrator) determines that any allocation or apportionment of a target species or "other species" category has been or will be reached during the season, then a directed fishing allowance is established and the remaining amount is set aside as incidental catch to support other anticipated groundfish fisheries for the rest of the year. In establishing a directed fishing allowance, the Regional Administrator considers the amount of the allocation that will be taken as incidental catch in directed fishing for other species in the same subarea, regulatory area, or district. In 2004, for example, the non-AFA trawl catcher processors harvested approximately 37% (14,314 mt) of their total Pacific cod catch in non-Pacific cod target fisheries. The other trawl sectors took less than 1 percent each of their total Pacific cod catch in the non-Pacific cod target fisheries (M. Furuness, pers comm, 12/17/04).

⁹The 500 mt ICA was initially derived from estimates of incidental catch of Pacific cod in other groundfish fisheries from 1996 – 1999. NMFS determines the ICA on an annual basis by regulation (679.20(a)(7)(i)(C)(1)).

Under the current management system, the trawl BSAI Pacific cod fisheries are apportioned into three sequential seasons, from January 20 to November 1. The trawl Pacific cod fishery usually closes for the year by regulation on November 1. At that time, most of the trawl fisheries have finished for the year and only a small ICA of Pacific cod is necessary. If, alternatively, the allocation for trawl Pacific cod was allocated as a directed fishing allowance at the beginning of the year, then an ICA would also need to be established at the start of the year and be deducted from the trawl allocation. Currently, however, the trawl cod fisheries are not managed in such a way, and a directed fishing allowance and an ICA are only established if the Regional Administrator anticipates that a seasonal apportionment for cod will be reached. This isn't typically necessary until late in the fishing year. In establishing a directed fishing allowance and an ICA at that point, NMFS can close directed fishing for cod, but allow fishing to continue (using the ICA) for other target trawl fisheries that may catch cod incidentally.

This system works for the trawl cod fishery, as the seasonal allocations run sequentially (January 20 – April 1, April 1 – June 10, June 10 – November 1). It is not typically necessary to set an ICA in the first two seasons, since each seasonal apportionment follows the next, and NMFS has a sense of which fisheries are going to close and when. If there were instead a long gap in the seasons, for instance, if the trawl cod fishery did not have a cod allocation for several months over the summer, then it would likely be more difficult for NMFS to predict when to close the directed trawl cod fishery in order to leave enough for incidental catch needs in other trawl fisheries over the summer. In addition, because the trawl sectors have not typically harvested their entire fall cod allocation, it is not necessary to specify an ICA at the beginning of the year.

Component 3: Methodology for Determining Sector Catch History

Catch history for each sector will be calculated two ways. P-cod is an IRIU species. For purposes of determining catch history, “catch” means retained legal catch (including rollovers). A sector’s catch history includes all retained legal catch from both the Federal fishery and parallel fishery in the BSAI (i.e. retained legal catch from the Federal BSAI Pacific cod TAC less CDQ). This includes retained legal catch from both LLP and non-LLP vessels. The analysis will also calculate each sector’s allocation based on the total catch (retained and discarded) of each sector over total catch of all sectors.

For each of the years under consideration in Component 4 (1995-2003), each sector’s annual harvest share will be calculated for that individual year as a percentage of the retained legal catch by all sectors and as a percentage of the total (retained and discarded) legal catch by all sectors. For each of the sets of catch history years in Component 4, each sector’s harvest percentage will be calculated as the sector’s average of the annual harvest share.

Pacific cod is an IR/IU species, which means that minimum retention requirements apply by vessel category and directed fishing status (see 50 CFR 679.27). In sum, if directed fishing is open for Pacific cod, all cod must be retained on board the vessel. If directed fishing for Pacific cod is closed, then all cod must be retained up to the 20% MRA. If Pacific cod goes on PSC status, then retention of cod is prohibited.

Component 3 provides direction on how to calculate the sector allocations in the analysis. The allocations are proposed to be calculated two ways: 1) retained catch of the sector over the retained catch of all sectors, and 2) total (retained and discarded) catch of the sector over the total catch of all sectors.

In recent BSAI FMP amendments that directly affected the BSAI Pacific cod fixed gear sector allocations (Amendments 64, 67, 68, 77), analysts used only retained catch for determining catch history by sector for the purpose of making allocations. There are two primary issues related to this decision. One is the policy decision to establish allocations for a given sector based on the sector's retained harvest of that species, and not its discards or bycatch of that species. Some people have stated that they do not feel it is appropriate to give a person credit, for fish they have not retained. The second issue is the technical difficulty associated with determining an accurate estimate of total catch for the catcher vessel sectors.

Estimation of total catch (including at-sea discards) for catcher vessels can be generated from two sources. Some fish tickets contain reports of at-sea discards, however, these reports are considered very unreliable, because reporting at-sea discards is not required and only some of the at-sea discards are reported. At-sea discards are not required on fish tickets, in part, because the processors that fill out the fish tickets cannot be responsible for reporting at-sea activities. Depending on the years used, blend data and the current catch accounting system are other potential sources for determining total catch estimates. Blend data are produced using data collected from processing plants on a weekly basis together with observer data collected from vessels. At the gear/area level, the blend estimates of total catch are used for the management of the fishery. Attempts to make estimates of total catch for smaller aggregations of the catcher vessel fleet (such as vessels targeting a particular species) will contain two potential errors that arise from the manner in which catch is aggregated. In the blend data, targets are identified weekly by processor (i.e., a plant's target is based on deliveries of all vessels to the plant during the week). Any blend data estimates of total catch by a catcher vessel fleet participating in a particular target fishery would be based on all landings at processors that are determined to target the species (with targets identified on a weekly basis). These estimates are very likely to include deliveries by some vessels that did not target the species, biasing the results by including catch of these vessels targeting other species. In addition, some vessels fishing the target species are likely to deliver to plants determined to have other targets, removing the catch of these vessels from the estimate. The extent of the bias is unpredictable and is likely to vary by target fishery, time of year, gear, and area. For these reasons, staff notes that using total catch to determine a direct allocation of Pacific cod to the catcher vessel sectors could be inaccurate.

Finally, the issue of the ICA also relates to how the sector allocations will be calculated under Component 3. Component 3 specifies that a sector's catch history will be calculated including all retained legal catch,¹⁰ meaning any legal landings of BSAI Pacific cod that were retained by a sector, whether or not those landings were made in the directed BSAI Pacific cod fishery. This methodology makes sense for the first step – making the overall allocations to the trawl sectors, fixed gear sector, and jig sector. This is because it is necessary to count all cod landings toward making those overall allocations, so that incidental catch needs are included in the gear level splits of the TAC. All of the cod necessary to prosecute the BSAI trawl fisheries will be accounted for in the trawl cod allocations, whether the cod is used incidentally or in the target cod fishery. As discussed previously, if NMFS determines that a trawl cod allocation is close to being reached, it may establish a cod directed fishing allowance and an ICA for cod taken incidentally in other target trawl fisheries. This determination would likely occur toward the end of the season, as the fishery progresses and NMFS can evaluate the needs for the directed Pacific cod fishery and incidental catch needs in other trawl target fisheries.

However, in splitting the fixed gear allocation further among the fixed gear sectors (hook-and-line CP, pot CP, hook-and-line CV, pot CV, <60' CVs), there is rationale to support making those further allocations based on Pacific cod catch history in the target BSAI Pacific cod fishery. Meaning, only BSAI Pacific cod retained in the target (directed) Pacific cod fishery would count toward each fixed

¹⁰The other method under Component 3 specifies using total legal catch of each sector.

gear sector's allocation, and cod caught incidentally in other fixed gear target fisheries (halibut, Greenland turbot, etc.) would not count toward a sector's cod allocation. This methodology makes sense for determining fixed gear sector allocations because an ICA is established at the beginning of the year to account for incidental catch of Pacific cod in other fixed gear fisheries. Thus, one may use targeted retained catch to establish the direct fixed gear Pacific cod allocations, and cod caught in the non-cod target fisheries is attributed to the fixed gear ICA. This is the methodology that was used in previous fixed gear BSAI Pacific cod allocation amendments, such as Amendments 64, 68, and 77. Assuming that the fixed gear ICA will continue to be deducted from the fixed gear allocations at the beginning of the year, staff will maintain this approach for determining fixed gear allocations unless directed otherwise.

Component 4: Sector Catch History Years

Component is to include sets of years from which one set of years will be selected for all sectors. Note that the allocations from Amendment 46 (BSAI Pacific Cod Allocations) were implemented in January 1997.

There will be a suboption under each set of years to drop one year. Each sector would drop its worst year (smallest annual harvest share percentage for that sector). This could result in an aggregate percentage greater than 100% for a set of years for all sectors combined. If that is the case, this would be scaled back to 100%.

- 4.1 1995 – 2002
 - 4.1.1 Drop one year
- 4.2 1997 – 2003
 - 4.2.1 Drop one year
- 4.3 1998 – 2002
 - 4.3.1 Drop one year
- 4.4 1999 – 2003
 - 4.4.1 Drop one year
- 4.5 2000 – 2003
 - 4.5.1 Drop one year

Component 4 provides five options from which the Council will select one series of years to determine the allocations to all sectors. Note that the options provided include years ranging from 1995 to 2003 (the most recent data available). The component notes also that Amendment 46, which established the current overall allocation scheme among the trawl (47%), fixed (51%), and jig (2%) gear sectors was implemented in 1997 (no sunset date). Prior to 1997, Amendment 24 established allocations as follows: trawl (54%), fixed (44%), and jig (2%). Amendment 24 was in place from February 1994 through December 1996.

The years in Component 4 were proposed specifically for the new Pacific cod amendment, thus, this component does not exactly mirror the options proposed under Amendment 80 for establishing flatfish allocations to the non-AFA CP sector, nor does it mirror the options proposed for Amendment 80 prior to October 2004. Note also that a 'drop year' provision is included. This provision is intended to accommodate each sector's worst harvest year, whether it was due to Steller sea lion mitigation measures, weather, or other factors. A brief comparison of the options is shown below.

Current Am. 80 (no option for drop year)

1995 – 03
1998 – 02
1998 – 04
1999 – 03
2000 – 04

Current cod motion (option for drop year)

1995 – 02
1997 – 03
1998 – 02
1999 – 03
2000 – 03

Staff notes that the drop year option, in combination with the five general options, results in ten individual options for establishing sector allocations. In addition, these ten options must be analyzed in the context of the options in Part II to apportion the BSAI Pacific cod sector allocations to the BS and AI subareas. The motion allows the Council to choose one set of years to make the overall BSAI allocations, and a different set of years to make the BS and AI subarea allocations. The rationale is that there has been a shift in the sectors' proportion of harvest in the AI over the last several years, and the Council may want to reflect more recent harvest patterns when making a BS and AI split than in the overall allocations.

Given the construction of the motion, however, there is the potential for a multitude of options for the BS and AI split. Under Options 3 and 4 in Part II, the BSAI allocation to each sector (based on the years selected in Component 4) is maintained, and the AI or BS subarea allocation is made using the set of years selected under Options 3 or 4. Under Options 3 and 4, there are six different options to select a series of years from which to base a sector's AI (Option 3) or BS (Option 4) historic harvest. Combining six options from Option 3, with the ten options under Component 4, would result in sixty options for determining BS and AI subarea sector allocations under Part II, Option 3. Another sixty options would be calculated under Part II, Option 4.

Thus, while it is reasonable to retain the ability to choose a different series of years to make the BS and AI split than is used in the overall BSAI allocation, both series of years will factor into the options under Part II. Because of the multitude of combinations that result, the Council may want to consider carefully which series of years are the most relevant for analysis. Narrowing of the options under Component 4 and/or Option 3 and 4 in Part II will help to simplify the analysis and make for a more understandable document for the public.

Component 5: Allocation of BSAI TAC to Sectors

The intent of the allocations is to provide stability to the sectors; therefore, the sector allocations are hard cap allocations (plus rollovers, if any).

For all fixed gear sectors, the sector allocation is for all directed fishing for BSAI Pacific cod. For the jig and all trawl sectors, the sector allocation is for all directed and incidental catch of BSAI Pacific cod.

A hard cap allocation for the jig and trawl sectors means that when an individual sector's allocation (including rollovers) of BSAI Pacific cod is fully taken, all directed fishing for BSAI Pacific cod closes for that sector as well as closes any fisheries where BSAI Pacific cod would be caught incidentally by the same sector.

A hard cap allocation for the fixed gear sectors means that when an individual fixed gear sector's allocation (including rollovers) of BSAI Pacific cod is fully taken, all directed fishing for BSAI Pacific cod closes for that sector. However, this does not close fixed gear fisheries where BSAI Pacific cod are caught incidentally. That incidental catch is counted against the fixed gear ICA (incidental catch allowance).

Component 5 provides clarification as to how the allocations are to be managed by NMFS. The first part of the component discusses the ICA for the fixed gear sectors, specifically that the fixed gear allocations are intended for directed fishing of BSAI Pacific cod, and incidental catch of Pacific cod is attributed to the ICA (as discussed in detail in Component 2). For the jig and trawl sectors, an ICA is not established at the beginning of the year. However, as discussed under Component 2, NMFS does establish a directed fishing allowance and an ICA if NMFS determines that any allocation or apportionment of a target species or “other species” category has been or will be reached during the season. This is the management system used in the BSAI Pacific cod trawl fisheries, which allows NMFS to close the directed fishery for trawl Pacific cod if necessary, and allow other trawl fisheries to continue (using the ICA) fishing in other target trawl fisheries that may catch cod incidentally. Thus, neither the fixed gear fisheries nor the trawl fisheries are currently managed using what most may understand as a ‘hard cap,’ because reaching the directed fishing allowance for Pacific cod does not shut down other (non-cod) target fisheries that may catch cod incidentally. However, all sector allocations will represent the total amount of cod available to that sector (whether attributed to the directed fishery or incidental catch needs).

The use of the term ‘hard cap’ is usually associated with a management system like the CDQ Program, in which allocations made to the individual CDQ groups are considered ‘hard caps’. A CDQ group is allocated X amount of a particular species, and whether the group is targeting that species or catching it incidentally in other target fisheries, the group cannot exceed its allocation. Thus, if a CDQ group reaches its allocation for a particular species, it closes the directed fishery for that species as well as any other target fisheries that would be expected to have incidental catch of that species. For example, “other species”, shortraker rockfish, rougheye rockfish, and northern rockfish are now being managed on the sector (CDQ reserve) level to mitigate this problem.

The motion language provided under Component 5 is confusing, if the intent is for NMFS to continue to manage the fixed gear, jig, and trawl Pacific cod fisheries the way it does currently. Unless the intent is to change the way that NMFS manages the trawl fisheries to a ‘hard cap’ system, staff suggests deleting all of the introductory text of Component 5 (all text before Option 5.1) in order to avoid confusion. The result is that NMFS would continue to manage the fixed gear Pacific cod fisheries by establishing an ICA at the beginning of the year, and it would continue to manage the jig and trawl fisheries by establishing a directed fishing allowance and an ICA during the year, if the Regional Administrator determines that an apportionment of cod has been or will be reached during the season.¹¹

5.1 **Fixed Gear ICA** (*status quo*): A small amount (approximately 500 mt) of Pacific cod is taken incidentally in BSAI fixed gear directed fisheries for groundfish where Pacific cod is not the target. This amount is determined annually by the NMFS Regional Administrator and is to be deducted from the aggregate amount of BSAI Pacific cod TAC allocated to all the fixed gear sectors combined (*i.e. off the top of fixed gear allocation*). In the event the annual amount determined necessary for the fixed gear ICA increases significantly, the Council will revisit this issue and consider limiting the ICA amount and/or revising MRAs.

¹¹If both the directed fishing allowance and the ICA are fully taken, then cod is placed on prohibited species status, and the sector is prohibited from retaining cod.

5.2 **Allocations to Sectors:** Allocations to sectors are to be based on catch history (Component 4) as well as other considerations (see Problem Statement).

The allocations (whether combined or separate) to the <60' fixed gear CVs and jig CVs (i.e. the 'small boat sectors') shall collectively not exceed:

- 5.2.1 Actual catch history percentage for jig and <60' fixed gear CVs collectively (from the set of years selected for all sectors in Component 4).
- 5.2.2 2.71% (*represents current 2% jig allocation plus 1.4% of 51% fixed gear*)
- 5.2.3 3%
- 5.2.4 4%

Note: The intent of the allocations is to provide stability to the sectors. In all options and suboptions, the <60' fixed gear CV sector will only fish from the direct allocation to that sector, which includes any seasonal rollover of the unused jig allocation.

Option 5.1 is not an option that would be included as an implementing regulation, it is more effectively a statement of Council intent. Meaning, should the Council choose this option, it would signal to the public that should the fixed gear ICA increase significantly compared to previous years (500 mt), the Council intends to consider the issue. Note that the Council could do this at any time in its normal process, however; it is not necessary to select this specific option to do so.

Option 5.2 is specific to the allocations to the <60' fixed gear and jig gear sectors. While the catch history of all sectors will be calculated separately for each individual year and the series of years proposed under Component 4, Option 5.2 provides four options to combine the <60' fixed gear allocation and jig allocation into one allocation, with a maximum allocation specified. Option 5.2.1 would specify that the allocations to the <60' fixed gear sector and jig sector (whether combined or separate), could not exceed the actual catch history of the two sectors combined. The remaining three options provide a maximum percentage that the combined allocations could not exceed. At some point, if separate allocations are to continue to the <60' fixed gear and jig gear sectors, then those allocations need to be identified within the caps proposed under Options 5.2.1 – 5.2.4.

Recall that the BSAI jig allocation is currently 2% of the non-CDQ BSAI Pacific cod TAC, and the <60' fixed gear allocation is currently 0.71% of the non-CDQ BSAI Pacific cod TAC (1.4% of the 51% fixed gear TAC = 0.71%). Option 5.2.2 represents this combined allocation of 2.71%. Note however, that currently the <60' pot and hook-and-line catcher vessels fish off of the general pot catcher vessel allocation and the general hook-and-line catcher vessel allocation, respectively, for their gear types, when those fisheries are open. Thus, currently not all of the harvest taken by <60' fixed gear vessels is attributed to that sector's 1.4% allocation. For example, preliminary data for 2004 indicate that the <60' fixed gear fleet harvested an estimated 3,030 mt, about one-third of which was attributed to the general fixed gear allocations for hook-and-line and pot CVs. Note that under all of the options, the <60' fixed gear sector would only fish off of its direct allocation, and would not be allowed to fish off the general pot CV or hook-and-line CV allocations.

The <60' fixed gear fleet first received a separate allocation in late 2000 under Amendment 64. This sector harvested its entire annual allocation in 2002 and 2003. In 2004, the first year in which unused jig quota was reallocated to the <60' fixed gear sector, preliminary data indicate this sector harvested its entire allocation plus about 500 mt of reallocated jig quota (of a total of 1,545 mt reallocated in early April). Overall, the <60' fixed gear fleet harvested about 1% of the total non-CDQ BSAI Pacific cod catch in 2004 (preliminary data, NMFS BSAI Catch report through 12/31/04).

The BSAI Pacific cod jig sector has not harvested its entire 2% allocation since it was established in 1994. This allocation was established to allow for growth in this small boat, entry level fishery. The continued rollovers resulting from unused jig quota was part of the impetus for the action under Amendment 77 which allows unused jig quota to be reallocated to the <60' fixed gear fleet on a seasonal basis (as opposed to the end of the year). Thus, the <60' sector can theoretically receive reallocated quota near the end of each of the three jig seasons (Jan. 1 – April 30; April 30 – August 31; August 31 – December 31). The practical reality is that the <60' sector would likely only receive one or possibly two reallocations, as any quota reallocated late in the year would remain unused by the small boat sector and thus be reallocated directly to the freezer longline sector. On average since 1999, the jig sector has harvested about 12% of its annual allocation, with about 88% being reallocated to other gear sectors.

Component 6: Rollovers between Sectors

Reallocated quota (rollovers) will continue to be hierarchical in nature, flowing from the most precise definition of a sector to the next most inclusive definition before unused Pacific cod is re-allocated to a different gear type, while maintaining management flexibility. The jig allocation will continue to be seasonally apportioned and will rollover on a seasonal basis. For all other sectors, after September 1, managers may reallocate projected unused sector allocations taking into account: a) the intent of rollover hierarchy, and b) the likelihood of a sector receiving a rollover to actually harvest the rollover.

Rollover hierarchy for unused sector allocations (current regulations adapted to sector splits)

- 6.1 Projected unused trawl sector allocations must be considered for reallocation to other trawl sectors (AFA CP trawl, non-AFA CP trawl, AFA CV trawl, non-AFA CV trawl) before being reallocated to the fixed gear sectors (hook-and-line CP, hook-and-line CV $\geq 60'$, pot CP, pot CV $\geq 60'$).
- 6.2 Reallocation of TAC from the trawl sectors to fixed gear sectors will be 0.9% to pot CP 4.1% to pot CV $\geq 60'$, and 95% to hook-and-line CP.
- 6.3 Projected unused allocation in the jig sector should rollover to the <60' fixed gear CV sector on a seasonal basis.
- 6.4 Projected unused pot sector allocations (CPs and $\geq 60'$ CVs) must be considered for reallocation to the other pot sector before being reallocated to the hook-and-line CP sector.
- 6.5 Projected unused allocation in the <60' fixed gear CV sector, both pot sectors (CP and $\geq 60'$ CV), and hook-and-line CV $\geq 60'$ should rollover to the hook-and-line CP sector.
- 6.6 Unused seasonal allowances for the trawl, pot, and hook-and-line sectors may be reapportioned to the subsequent seasonal allocation for the respective sectors.

Component 6 outlines the hierarchy for reallocating cod quota that is projected to remain unused during the fishing year.¹² Thus, Component 6 as a whole is a provision, and does not propose options for analysis. In effect, Component 6 would continue the current rollover hierarchy established in Amendments 46 and 77, with a modification (under 6.1) to account for the new trawl sector splits.

¹²With the exception of the jig sector, any quota that is unused by a sector at the end of a season is rolled over to the next season for that sector. As stated previously, any seasonal apportionment that is projected to remain unused by the jig sector is reallocated to the <60' fixed gear sector.

Since the BSAI Pacific cod allocations have been in effect, NMFS has reallocated quota each year from the trawl sectors and jig sector (due to insufficient effort) to the pot and hook-and-line sectors. Reallocations between gear types (e.g., from trawl CP to trawl CV, or pot CV to pot CP) have occurred less frequently and in lower amounts. In brief, in the past six years (1999 – 2004), NMFS has reallocated an average of about 8,300 mt from the trawl CP sector, which represents almost 19% of that sector’s allocation on average. During the same time period, NMFS reallocated on average about 4,400 mt from the trawl CV fleet, which represents about 10% of that sector’s allocation. About 3,200 mt were reallocated on average from the jig sector during that time period, which represents about 88% of their allocation.¹³ See Table 2 below for more details on the reallocations by year.

Table 2. Reallocations (in mt and as a % of the sector's annual allocation) of BSAI Pacific cod from the trawl sectors and jig sector, 1999 - 2004

Year	Trawl CP		Trawl CV		Jig	
	mt	%	mt	%	mt	%
1999	7,000	18	2,000	5	2,800	85
2000	9,000	21	0	0	3,000	84
2001	10,000	24	14,000	34	3,000	86
2002	6,500	15	2,000	5	3,400	92
2003	11,500	25	1,671	4	3,600	94
2004	5,413	12	6,127	13	3,545	89
Average	8,283	19	4,445	10	3,224	88

Source: NMFS, Sustainable Fisheries, information bulletins 1999 - 2004.

Component 7: CDQ Allocation of BSAI Pacific cod

CDQ allocations for BSAI Pacific cod shall be removed from the TAC prior to the allocation to all other sectors at percentage amounts equal to one of the following options:

- 7.1 7.5%
- 7.2 10%
- 7.3 15%

Component 7 proposes to increase the CDQ Program allocation of BSAI Pacific cod from 7.5% (status quo) to 10% or 15%. This component was included in Amendment 80 (prior to October 2004) when Pacific cod was included as a target species for sector allocations. A CDQ allocation increase to 10% or 15% is also included in the current Amendment 80 for each primary target flatfish species and incidental species. In addition, Amendment 80 includes a component for adjusting the PSC allocations to the CDQ Program to be proportional to the target CDQ allocations. One issue thus associated with Component 7 is whether non-target CDQ species and PSC species harvested incidentally in the CDQ target Pacific cod fishery would also need to be addressed. Currently, there are no options to modify any CDQ Program allocations except for the Pacific cod allocation.

The hook-and-line CDQ fisheries are primarily hook-and-line catcher processors targeting Pacific cod. On average during 1999 – 2003, the CDQ fisheries harvested about 93% of their BSAI Pacific cod allocation (CDQ Reserve Management EA/RIR, May 2004). In 2004, the NMFS CDQ catch reports indicate that the program harvested about 99% of its total BSAI Pacific cod CDQ allocation, and 93% of the total catch was harvested with hook-and-line gear, which is primarily the directed Pacific cod fishery. Some of the most common species harvested incidentally to CDQ Pacific cod are halibut,

¹³In effect, the trawl CP sector has harvested an average of 19% of the total BSAI Pacific cod TAC over 1999 - 2004 (the sector’s allocation is 23.5%). The trawl CV sector harvested an average of about 21% of the BSAI Pacific cod TAC (the sector’s allocation is 23.5%). The jig sector harvested on average <1% of the BSAI Pacific cod TAC (the sector’s allocation is 2%).

arrowtooth flounder, shortraker rockfish, rougheye rockfish, Bering Sea other rockfish, and the ‘other species’ category (sharks, skates, sculpins, octopus). The CDQ groups receive separate PSQ allocations of halibut, as well as individual group allocations of arrowtooth flounder and Bering Sea other rockfish.

The other species category is managed on the CDQ Program (reserve) level, thus no individual group allocations are made. Generally, harvest of non-target species that are managed on the reserve level in the CDQ fisheries does not prevent the CDQ groups from fully harvesting their target species allocations. CDQ groups are subject to having these species categories placed on prohibited species status or other management measures if they catch in excess of their annual CDQ reserve. Shortraker, rougheye, and northern rockfish have also been managed at the reserve level during the 2003-2005 allocation cycle under an administrative determination made in the last allocation process. However, the problem that lead to this management decision (the State submitted allocation recommendations for incorrect rockfish species categories) will be corrected in the next allocation cycle, and these species will again be allocated among the individual CDQ groups starting in 2006.

The tables below compare the associated incidental catch and PSC rates per metric ton of Pacific cod harvested in the 2004 CDQ fisheries to the total catch of these species in the CDQ fisheries to determine if an increase in the Pacific cod CDQ allocation might result in the program as a whole exceeding any incidental catch species or halibut PSC limits. This exercise provides only a rough approximation of the potential of this issue, as it must assume that the other target fisheries and their incidental catch needs remain the same.

Table 4 uses the projected catch in Table 3 under a 10% and 15% CDQ Pacific cod allocation and the ratio of incidental species to Pacific cod harvest in 2004 to estimate the incidental catch needs for the CDQ Pacific cod fishery if the cod allocations were increased. The only non-target species group allocation that is projected to be exceeded is the ‘other species’ category. As stated previously, however, this particular species category is already managed differently than most other categories, due to concerns that this category could constrain the CDQ groups’ Pacific cod fisheries.

Table 3. Projected CDQ harvest of BSAI Pacific cod under 7.5%, 10%, 15% program allocations

CDQ Allocations	Option 7.1: 7.5%	Option 7.2: 10%	Option 7.3: 15%
CDQ BSAI Pacific cod allocation (based on 2004 TAC)	16,163 mt	21,550 mt	32,325 mt
2004 CDQ BSAI Pacific cod total harvest	16,009 mt	21,550 mt (projected)	32,325 mt (projected)
2004 CDQ Pacific cod catch in hook- and-line fisheries ¹	14,880 mt	20,042 mt (projected)	30,062 mt (projected)

¹Assumption is that the hook-and-line fisheries primarily represent the directed Pacific cod CDQ fishery and that overall, the CDQ Program will harvest about 93% of their total cod allocation in the hook-and-line fishery.

Table 4. Projected incidental catch needs in the CDQ Pacific cod fishery based on 2004 catch

Non-target or PSQ species	halibut	other species ¹	arrowtooth	shortraker rockfish ¹	rougheye rockfish	BS 'other' rockfish
Amt (mt) of incidental species harvested in hook-and-line fisheries in 2004	47	2,859	151	3.9	0.37	0.48
Ratio of incidental species to cod in 2004 ²	0.003158	0.192137	0.010148	0.000262	0.000025	0.000032
Amt (mt) of incidental species allocated to CDQ program in 2004 (7.5%)	343	2,040	900	39	15	35
Amt (mt) of total incidental species harvested in 2004 ³	153	3,293	431	28.7	3.5	3.7
Estimates (mt) of total incidental species needed if CDQ cod allocation is 10% (calculated using ratios above)	169.8	4285.4	483.8	30.1	3.6	3.9
Estimates (mt) of total incidental species needed if CDQ cod allocation is 15% (calculated using ratios above)	201.5	6210.7	585.4	32.7	3.8	4.2

Source: CDQ Participation and Catch by Gear, NMFS 2004.

¹Note that the 'other species' category, rougheye rockfish, and shortraker rockfish are not allocated among the CDQ groups, but are managed on the CDQ Program (reserve) level. Managing on the reserve level has been determined appropriate for some non-target species that have a significant buffer between TAC and ABC. CDQ groups are subject to having these species categories placed on prohibited species status or other management measures if they catch in excess of their annual CDQ reserve.

²All ratios and estimates of incidental catch are based on incidental and PSC catch rates in the 2004 CDQ fisheries. Note that the projections estimated in this table assume that the incidental catch needs in other target fisheries remain constant.

³This is the total CDQ harvest of these non-target species (whether in the directed Pacific cod fishery or some other target fishery).

While the 2004 CDQ allocation of other species was 2,040 mt, the total actual harvest of other species (in Pacific cod and all other fisheries) was 3,293 mt. If the CDQ Program allocation of Pacific cod was increased to 10%, the projected additional amount of 'other species' necessary to prosecute the Pacific cod fishery would be 992 mt, resulting in a total of 4,285 mt of 'other species' necessary to harvest the target CDQ fisheries. Similarly, if the CDQ Program allocation of Pacific cod was increased to 15%, the projected additional amount of 'other species' necessary to prosecute the Pacific cod fishery would be 2,917 mt, resulting in a total of 6,210 mt necessary to harvest the target CDQ fisheries. Using these rough estimates, the 'other species' category appears to be the only non-target species allocation that may be reached or exceeded if the CDQ cod allocations were increased. However, since the 'other species' CDQ reserve is managed on an aggregate basis with general fisheries management measures, catching the entire annual 'other species' CDQ reserve would not necessarily constrain the CDQ Pacific cod fishery. This is not necessarily true for other incidental catch categories. Other (non-cod) target CDQ fisheries rely on these same non-target species, so changes in those allocations or fisheries will likely also affect overall incidental catch needs.

If the Council is concerned that the CDQ allocations of non-target species harvested incidentally in the target CDQ Pacific cod fishery are insufficient to support an increase in the Pacific cod allocations, additional language or options could be developed for the analysis. Similar to Amendment 80, Component 7 could be modified to read as follows (additions are underlined):

CDQ allocations for BSAI Pacific cod and associated non-target CDQ and halibut PSC taken incidental in the Pacific cod fisheries shall be removed from the TAC prior to the allocation to all other sectors at percentage amounts equal to one of the following options:

- 7.1 7.5%
- 7.2 10%
- 7.3 15%

The language proposed above is very general and does not specify the non-target species allocations being considered or the percentage increase proposed for those species. At some point, the Council would need to indicate the exact species or species groups whose allocations are proposed to be increased to support the increase in the cod allocation. In addition, the percentages above currently apply to the increase in the cod allocation, thus, the Council would need to specify the exact percentage increases being considered for the associated non-target species and halibut. Some information is provided in this paper to that effect, but the Council may also want to delay specifying the non-target species and their percentage increases until a preliminary analysis is available and/or additional public comment is provided.

B. Apportionment of BSAI PSC to Sectors

Note: The apportionment of trawl PSC to sectors would facilitate cooperative formation, may allow sectors to better manage PSC use, and may prevent preemption by another trawl sector. However, the apportionment of trawl PSC into the cod trawl fishery group and then between cod trawl sectors may prove to be difficult and could restrict management flexibility. The apportionments in this action will also have to work in conjunction with PSC apportionment in BSAI Amendment 80. Due to the complexity, the Council is seeking input on options for these components.

At this time, it may only be necessary to apportion trawl halibut PSC as it is the most constraining. The amount of herring PSC apportioned to the cod trawl fishery group (27 mt in 2005) may be too small to apportion between all trawl sectors. Crab PSC is abundance based and upon reaching the PSC limit, fisheries are not closed but rather areas are closed so that a fishery is not directly pre-empted.

Component 1: Apportionment of trawl halibut PSC to the cod fishery group

The total amount of trawl halibut PSC for the non-CDQ fisheries is 3,400 mt, which is apportioned between Pacific cod, yellowfin sole, rocksole/other flatfish/flathead sole, pollock/Atka mackerel/other. Generally, 1,400 mt is apportioned to the cod trawl fishery group, but this amount and actual use can vary annually. A significant amount of Pacific cod is taken incidentally in other trawl fisheries so the PSC use associated with that Pacific cod harvest would be attributed to a fishery group other than cod trawl. Amendment 80 will also allocate halibut PSC to the H&G trawl sector so that the amount of halibut PSC available to the remaining trawl sectors will be reduced.

(Options to be determined).

Component 1 of Part B proposes changing the amount of halibut PSC that is apportioned to the trawl cod fisheries annually. There are no options yet proposed for this component, and the Council is specifically soliciting feedback on this and the following component related to trawl halibut PSC. For the past several years, the BSAI trawl cod fishery has had a halibut PSC limit of 1,434 mt, while the BSAI trawl fisheries as a whole have had a limit of about 3,400 mt. The trawl cod fisheries do not

typically reach their halibut PSC limit, with the exception of 2004.¹⁴ The following table shows the halibut mortality and halibut mortality cap in the Pacific cod trawl fishery over the past five years. The 2004 prohibited species bycatch allowances for both the BSAI trawl and non-trawl fisheries are attached to this paper (Table A-2).

Table 5. Halibut mortality in the BSAI Pacific cod trawl fishery, 2000 – 2004

Year	Halibut mortality in BSAI Pacific cod trawl fisheries (mt and % of cap)	Halibut mortality cap in BSAI Pacific cod trawl fisheries (mt)
2004	1,519 (106%)	1,434
2003	1,234 (86%)	1,434
2002	1,128 (79%)	1,434
2001	672 (50%)	1,334
2000	935 (65%)	1,434

Source: BSAI Prohibited Species Reports, 2000 – 2004, NMFS catch accounting.

Note that Amendment 80 includes options (Component 6) that would create a separate apportionment of halibut PSC to the non-AFA trawl CP sector, including that associated with the Pacific cod fishery. Thus, the halibut PSC apportioned to the remaining trawl cod fisheries group would be reduced by the amount apportioned to the non-AFA trawl CP sector.

The Council may also determine that it needs to review the analysis of the potential changes to the BSAI Pacific cod allocations to the trawl sectors that result from Component 4 before it can determine whether modification to the halibut PSC limit for the trawl cod fishery group is necessary, and if so, the appropriate options for modification.

Component 2: Apportionment of the cod trawl fishery group PSC to trawl sectors

(Options to be determined).

Component 2 is related to Component 1 above. Component 1 proposes changing the halibut PSC allowance (currently 1,434 mt) to the cod trawl fishery group as a whole, while Component 2 proposes further splitting the halibut PSC allowance among the proposed trawl sectors: non-AFA CPs, AFA CPs, non-AFA CVs, and AFA CVs. Note that the Council could potentially use the halibut PSC apportionment to the non-AFA trawl CP sector (associated with Pacific cod catch) decided under Amendment 80 as its starting point under this component, or it could determine new halibut PSC apportionments to all sectors (including the non-AFA trawl CP sector), which would supersede the halibut PSC apportionment selected under Amendment 80. Currently, the Amendment 80 motion includes three options to apportion PSC to the non-AFA trawl CP sector: 1) allocation based on historical usage of PSC, 2) percentage allocations selected in Component 4 multiplied by the relevant total PSC catch in each PSC fishery group, or 3) the Council can select percentages and/or amounts for PSC allocated to the non-AFA trawl CP sector.

Component 3: Apportionment of cod hook-and-line halibut PSC between CPs and CVs

The total amount of non-trawl halibut PSC for the non-CDQ fisheries is 833 mt. The 833 mt is normally apportioned between cod hook-and-line sectors and other non-trawl fisheries during the annual specifications process. Generally, 775 mt is apportioned to hook-and-line cod fisheries and 58 mt to other non-trawl.

¹⁴In 2004, the halibut mortality in the cod trawl fisheries was about 1,519 mt (1,434 mt cap), while the halibut mortality in the yellowfin sole fisheries was lower than normal (560 mt, with a 886 mt halibut mortality cap).

This component would divide the halibut PSC amount apportioned to hook-and-line cod between hook-and-line CPs and hook-and-line CVs (for CVs $\geq 60'$ and CVs $< 60'$ combined). The apportionment is to be done by one of the following options:

- 3.1 In proportion to the BSAI Pacific cod TAC allocated to the sectors
- 3.2 10 mt for CVs, remainder for CPs
- 3.3 Other (*to be determined*)

Currently, the non-trawl halibut PSC allowance for the non-CDQ fisheries is apportioned to the Pacific cod hook-and-line fishery and other non-trawl fisheries as shown below. The groundfish pot and jig fisheries are exempt from halibut PSC limits, so the only non-trawl cod fishery that is subject to a halibut PSC limit is hook-and-line. For the past four years, the halibut PSC limit for the non-trawl cod fishery has been 775 mt. In the past three years (2002 – 2004), the halibut PSC limit for the non-trawl cod fisheries has not been reached, averaging about 65% taken. In 2001, the halibut PSC apportioned to the BSAI non-trawl cod fisheries was taken (and very slightly exceeded).

<u>Non-Trawl Fishery</u>	<u>2004 Halibut mortality (mt) BSAI</u>
<i>Pacific cod – Total</i>	<i>775</i>
<i>Jan. 1 – June 10</i>	<i>320</i>
<i>June 10 – Aug. 15</i>	<i>0</i>
<i>Aug. 15 – Dec. 31</i>	<i>455</i>
<i>Other non-trawl – Total</i>	<i>58</i>
<i>May 1 – Dec. 31</i>	<i>58</i>
<i>Groundfish pot and jig</i>	<i>exempt</i>
<i>Sablefish hook-and-line</i>	<i>exempt</i>
<i>Total non-trawl PSC</i>	<i>833</i>

Currently, the halibut PSC limit (775 mt) applies to both the hook-and-line catcher processors and catcher vessels in the BSAI Pacific cod fishery. In effect, if a seasonal apportionment of halibut PSC is reached, both hook-and-line sectors would be closed for the remainder of that season. In addition, because there is no halibut PSC apportioned to the second season of the hook-and-line cod fishery; this fishery essentially cannot operate between June 10 and August 15. The hook-and-line catcher processor sector generally supports this system, given that halibut bycatch rates increase substantially in the summer months and may risk closing the directed Pacific cod fishery relatively early. However, the hook-and-line catcher vessel sector, which is also constrained by the lack of halibut PSC apportioned to the summer season, is comprised of smaller vessels with lower catch rates and a relatively small allocation.¹⁵ Under the eligibility requirements of Amendment 67, only 10 hook-and-line catcher vessels $\geq 60'$ have the BSAI Pacific cod endorsement necessary to participate in the Federal BSAI Pacific cod fishery. And while 117 hook-and-line vessels $< 60'$ have the necessary Federal license to fish in the Federal BSAI Pacific cod fisheries, only about 31 vessels did so on average (1999 – 2004). The hook-and-line catcher vessel sector may benefit from the ability to fish Pacific cod in the summer months, and thus may want a halibut PSC allowance separate from the catcher processor sector, with halibut apportioned to the June 10 – August 15 season. Public comment may provide insight as to the overall level of desire or need for this component.

¹⁵ The general hook-and-line CV sector receives an allocation equal to 0.15% of the total BSAI Pacific cod TAC. The $< 60'$ hook-and-line CV sector also receives an allocation equal to 0.7% of the total BSAI Pacific cod TAC (this allocation is shared with the $< 60'$ pot CV sector).

Data on halibut PSC usage between the two hook-and-line sectors is not available for this discussion paper, but it will be provided in the analysis. Staff assumes that Option 3.1 means that if the hook-and-line CP sector receives 99% of the total BSAI Pacific cod TAC allocated to the hook-and-line sectors, then this sector will also receive 99% of the total halibut PSC apportioned to the non-trawl (hook-and-line) cod sectors. Using 2004 as an example, the hook-and-line CV sector ($\geq 60'$ and $< 60'$ combined) harvested approximately 900 mt and the hook-and-line CP sector harvested approximately 95,422 mt. Thus, about 1% of the total hook-and-line Pacific cod harvest was taken by the CV sector and 99% was taken by the CP sector. One percent of the current halibut PSC limit to the non-trawl cod fishery (775 mt) represents 7.75 mt. Therefore, one could assume that the resulting allocations of PSC under Option 3.1 would represent a similar range.

Option 3.2 would allocate 10 mt to the hook-and-line CV sector, with the remaining amount allocated to the hook-and-line CP sector. Given the discussion above, Option 3.2 is likely within close range to the halibut PSC allocations that would result under Option 3.1.

Part II: APPORTIONMENT OF BSAI PACIFIC COD SECTOR ALLOCATIONS TO BS AND AI

Note: This part would provide a method to apportion BSAI Pacific cod sector allocations to the BS and AI areas in the event that the BSAI Pacific cod ABC/TAC is apportioned to the BS and AI areas during the specifications process. No apportionment of BSAI PSC between the BS and the AI is under consideration at this time.

Option 1: Sector allocations remain as BSAI (with BS and AI TACs)

- 1.1 No allocation to a sector of a specific percentage of a sub-area. Sectors would have a BSAI allocation (from Part 1, A. Component 5) to fish in either sub-area (BS and AI) if the sub-area is open for directed fishing and TAC is available. *(Council discussion paper: Option 3).*

Option 2: BS and AI sector allocations based on equal percentage from BSAI sector allocations

- 2.1 Allocation to a sector of an equal percentage in both sub-areas. The allocation percentage of BSAI TAC a sector receives (from Part 1, A. Component 5) would result in that same percentage being applied to both the BS and AI sub-areas so that a sector would have the same percentage in both sub-areas. *(Council discussion paper: Option 2).*

Option 3: BS and AI sector allocations based on a sector's historic harvest in the AI with remainder of sector's overall BSAI allocation to be caught in the BS. Sector's BSAI allocation is maintained and used in annual calculation. *(Council discussion paper: Option 1).*

- 3.1 1995 - 2002
- 3.2 1997 - 2003
- 3.3 1998 - 2002
- 3.4 1999 - 2003
- 3.5 2000 - 2003
- 3.6 2002 - 2003

Option 4: BS and AI sector allocations based on historic harvest in the BS with remainder of sector's overall BSAI allocation to be caught in the AI. Sector's BSAI allocation is maintained and used in annual calculation. *(variation of Option 3 above)*

- 4.1 1995 - 2002
- 4.2 1997 - 2003
- 4.3 1998 - 2002
- 4.4 1999 - 2003
- 4.5 2000 - 2003
- 4.6 2002 - 2003

Part II provides four options to adapt either the existing or new Pacific cod allocations in the case of future changes in the BSAI Pacific cod TAC groupings. Staff interprets Part II as a stand alone set of options, meaning, while the Council's choice under Part I would affect the results under Part II, the Council could choose to take no action with regard to the Pacific cod allocations under Part I, but still choose an option under Part II to subdivide the current allocations between the BS and AI subareas. Part II does not propose to analyze whether the BSAI TAC should be split into two separate TAC groupings, but provides a methodology by which to modify the allocations should that decision be made in the annual specifications process.

The issue of whether to split the combined BSAI ABC (and TAC) by subarea has been raised at the Plan Team, SSC, and Council meetings during the last several years. The November 2003 BSAI SAFE Report noted that the BSAI Pacific cod ABC is not allocated by subarea, unlike pollock or sablefish. The BSAI Pacific cod ABC is based on an Eastern Bering Sea assessment model and expanded by a multiplier (1.17) into a BSAI-wide amount. In December 2003, the SSC recommended that the ABC should be split between BS and AI areas, but noted that management implications may preclude the Council from adopting separate area TACs in the specifications process. The SSC requested that the assessment authors evaluate potential methods for splitting the ABC and their potential management implications, so that specific recommendations could be made to the Council in the future.

In October 2004, the BSAI Plan Team and SSC recommended an approach (the Kalman filter) to estimate current biomass between areas because it has a strong theoretical justification and appears to result in sensible weights, with the most recent survey estimates receiving the highest weight (October 2004 SSC minutes). The Kalman filter approach results in subarea allocations of 85% for the BS and 15% for the AI of the combined BSAI ABC. However, the SSC noted that such weighting may no longer be necessary if a new, spatially disaggregated model is adopted for Pacific cod in the future, or if Pacific cod in the AI is managed separately under Tier 5.

Given the management implications related to the numerous sector allocations in the BSAI, the Pacific cod TAC has continued to be established for the entire BSAI management area. Absent direction from the Council, NMFS could likely only implement Option 2 (equal allocations in both areas) without a regulatory or plan amendment. The other approaches require new legal authority and a new plan amendment.

Staff provided a discussion paper addressing this issue at both the June and October 2004 Council meetings. The paper reviews three potential methodologies to use should the BSAI Pacific cod TAC be split into separate TACs for the BS and AI subareas in the future. The intent is to provide direction to NMFS regarding how to establish allocations in the BS and AI management areas prior to separate TACs being issued in the annual specifications process. Absent this direction, there is concern that the time necessary to undergo an analysis and notice and comment rulemaking after the TAC is divided would cause significant interruption of the cod fisheries.

The previous discussion paper provided three different approaches to this issue, noting that other reasonable options could also be developed. The staff options presented mirror Options 1 – 3 above, and Option 4 above is a variation of Option 3.

In sum, Option 1 would not assign a specific amount of catch to the BS or the AI by sector. Instead, sectors would be allowed to harvest their allocations from either area, and NMFS would close a BS or AI subarea to directed fishing when the TAC for that area is reached. All sectors could then only continue operating in the directed Pacific cod fishery in the subarea that remains open.

Option 2 would use the allocation that the sector received in the BSAI (under Part I, Section A, Component 4) and apply it to the separate BS and AI subareas. Thus, this option would result in a sector being allocated the same percentage of TAC in the BS and AI, regardless of historic harvest patterns between the two areas. For example, under the current allocations, the hook-and-line catcher processor sector receives 40.8% of the overall BSAI Pacific cod TAC. Under Option 2, that sector would receive 40.8% of the BS TAC and 40.8% of the AI TAC.

Option 3 would calculate each sector's BSAI allocation, then assign each sector its historic percentage of the AI TAC, and adjust each sector's percentage of the BS TAC to ensure that the sector is allocated their assigned percentage of the combined BS and AI Pacific cod TACs. This methodology would ensure that the overall gear allocations for the combined BSAI TAC remain in place, but sectors would be allocated different percentages of each area based on their historic harvest patterns. In Option 3, the sector is assigned its historic percentage in the AI (based on a series of years selected), and under Option 4, the sector is assigned its historic percentage in the BS (based on a series of years selected). Under both of these options, the series of years used to first determine a sector's overall share of the BSAI TAC can differ from the series of years used to determine a sector's separate AI or BS allocation. This methodology is intended to account for the fact that various sectors fished more in the AI during some years than others. For instance, the blend data presented in the staff discussion paper indicate that pot vessels harvested relatively more Pacific cod in the AI during the years 1995 – 1997 than they did during 2002 – 2003.

Finally, recall the discussion provided under Component 4 (p.16) regarding the number of potential options that will result from the combination of Component 4 and the options provided under this part. Combining the ten options under Component 4 with the six options under Option 3 of this part, would result in sixty options for determining BS and AI subarea sector allocations under Part II, Option 3. Another sixty options would be calculated under Part II, Option 4.

Thus, while it is reasonable to retain the ability to choose a different series of years to make the BS and AI split than is used in the overall BSAI allocation, both series of years will factor into the options under Part II. Because of the multitude of combinations that result, the Council may want to consider carefully which series of years are the most relevant for analysis. Narrowing of the options under Component 4 and/or Option 3 and 4 in Part II will serve to simplify the analysis.

Table A-1: Overview of BSAI Pacific cod Allocation and Endorsement Amendments

Amendments	Am. 24	Am. 46	Am. 64	Am. 67	Am. 77
Action	Allocation of BSAI P.cod TAC among trawl gear, fixed gear, and jig gear.	Allocation of BSAI P. cod TAC among trawl gear, fixed gear, and jig gear. Allocation between trawl CP and CV.	Allocation of fixed gear BSAI P.cod TAC (51%) among pot gear, longline CPs, longline CVs, and <60' vessels.	LLP Pacific cod endorsement requirements for ?60' fixed gear vessels in the directed BSAI P.cod fishery.	Allocation of fixed gear P.cod TAC (51%) among pot CPs, pot CVs, longline CPs, longline CVs, and <60' vessels.
Allocations	Trawl: 54% Fixed: 44% Jig: 2%	Trawl: 47% Trawl CP (23.5%) Trawl CV (23.5%) Fixed: 51% Jig: 2%	Of fixed gear 51%: longline CPs 80.0% longline CVs 0.3% pot (CP and CV) 18.3% <60' pot/longline 1.4%	Endorsement rqmt (based on participation and landings criteria) for the following sectors: longline CP, longline CV, pot CP and pot CV. Not required for <60' fixed gear vessels.	Of fixed gear 51%: longline CPs 80.0% longline CVs 0.3% pot CPs 3.3% pot CVs 15.0% <60' pot/longline 1.4%
Allocation basis	approximate harvest during 1991 - 1993, with exception of increased jig allocation	industry negotiation: based closely on current harvest percentages of each sector under current halibut PSC limits	based closely on 1995 - 1998 harvests by each sector, with the additional allocation to the <60' vessels.	N/A	Longline CP, longline CV, and pot gear split based closely on 1995-1998 harvests. Pot CP and CV split based on 1998-2001 harvests. Additional allocation to <60' vessels.
Other actions	Authorized three seasons for fixed gear sector. Reallocations: 1) Authorized NMFS to reallocate unused P.cod from trawl to fixed gear and vice versa. 2) Reallocation of unused jig allocation to other gear sectors on or about Sept. 1.	Authorized three seasons for fixed gear sectors. Reallocations: 1) Authorized NMFS to reallocate unused P.cod within gear types and then between trawl and fixed gear. 2) Reallocation of unused jig allocation to fixed gear sectors specified for Sept. 15.	Authorized three seasons for fixed gear sectors. Reallocations: 1) Unused longline CV and <60' vessel allocation will be reallocated to longline CP sector. 2) Reallocation of unused jig allocation to fixed gear sectors specified for Sept. 15. 3) Unused trawl or jig allocations are reallocated: 95% to longline CPs and 5% to pot gear.	N/A	Authorized three seasons for fixed gear sectors. Reallocations: 1) Unused longline CV and <60' vessel allocation will be reallocated to longline CP sector. 2) Established 3 seasons for jig gear allocation. Any unused portion of a seasonal allocation for jig gear will be reallocated to <60' CVs. 3) Unused trawl allocations are reallocated: 95% to longline CPs; 0.9% to pot CPs; 4.1% to pot CVs. 4) Unused pot CP or CV quota will be reallocated to the other pot sector before it is reallocated to other fixed gear sectors.
Date effective	Feb. 28, 1994	Jan. 1, 1997	Sept. 1, 2000	Jan. 1, 2003	Jan. 1, 2004
Sunset date	Dec. 31, 1996	none	Dec. 31, 2003	none	none

Note: The fixed gear allocations established under Am. 64 and Am. 77 were determined excluding quota reallocated from other gear (trawl or jig) sectors. Including reallocated quota would have reduced the percentage of catch harvested in 1995 - 1999 by the pot sector by about 0.5 percentage points (487 mt using the 2003 TAC) and increased the percentage of catch harvested by the longline catcher processor sector by the same amount.

TABLE A-2: 2004 PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES

Trawl Fisheries	Prohibited species and zone					
	Halibut mortality (mt) BSAI	Herring (mt) BSAI	Red King Crab (animals) Zone 1 ¹	C. opilio (animals) COBLZ ²	C. bairdi (animals)	
					Zone 1 ¹	Zone 2 ¹
Yellowfin sole	886	171	33,843	2,776,981	340,844	1,788,459
January 20 - April 1	262	.....	.....	.....	.....	.....
April 1 - May 21	195	.....	.....	.....	.....	.....
May 21 - July 4	49	.....	.....	.....	.....	.....
July 4 - December 31	380	.....	.....	.....	.....	.....
Rock sole/other flat/flathead sole ⁴	779	25	121,413	969,130	365,320	596,154
January 20 - April 1	448	.....	.....	.....	.....	.....
April 1 - July 4	164	.....	.....	.....	.....	.....
July 4 - December 31	167	.....	.....	.....	.....	.....
Turbot/arrowtooth/sablefish ⁵	.....	11	.....	40,238	.....	.....
Rockfish	.....	.....	.....	.....	.....	.....
July 4 - December 31	69	9	.....	40,237	.....	10,988
Pacific cod	1,434	25	26,563	124,736	183,112	324,176
Midwater trawl pollock	.....	1,456	.....	.....	.....	.....
Pollock/Atka mackerel/other ⁶	232	179	406	72,428	17,224	27,473
Red King Crab Savings Subarea ³ (non-pelagic trawl)	.....	.....	42,495	.....	.....	.....
Total trawl PSC	3,400	1,876	182,225	4,023,750	906,500	2,747,250
Non-trawl Fisheries						
Pacific cod - Total	775					
January 1 - June 10	320					
June 10 - August 15	0					
August 15 - December 31	455					
Other non-trawl - Total	58					
May 1 - December 31	58					
Groundfish pot and jig	exempt					
Sablefish hook-and-line	exempt					
Total non-trawl PSC	833					
PSQ reserve ⁷	342	.....	14,775	326,250	73,500	222,750
PSC Grand total	4,575	1,876	197,000	4,350,000	980,000	2,970,000

¹ Refer to § 679.2 for definitions of areas.

² *C. opilio* Bycatch Limitation Zone. Boundaries are defined at 50 CFR part 679, Figure 13.

³ In December 2003, the Council proposed limiting red king crab for trawl fisheries within the Red King Crab Savings Subarea (RKCSS) to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (see § 679.21(e)(3)(ii)(B)).

⁴ "Other flatfish" for PSC monitoring includes all flatfish species, except for halibut (a prohibited species), greenland turbot, rock sole, yellowfin sole and arrowtooth flounder.

⁵ Greenland turbot, arrowtooth flounder, and sablefish fishery category.

⁶ Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

⁷ With the exception of herring, 7.5 percent of each PSC limit is allocated to the CDQ program as PSQ reserve. The PSQ reserve is not allocated by fishery, gear or season.

TABLE A-3: 2004 GEAR SHARES AND SEASONAL APPORTIONMENTS OF THE BSAI PACIFIC COD TAC [Amounts are in metric tons]

Gear sector	Percent	Share of gear sector total	Subtotal percentages for gear sectors	Share of gear sector total	Seasonal apportionment ¹	
					Date	Amount
<u>Total hook-and-line and pot gear allocation of Pacific cod TAC</u>	51	101,662				
Incidental catch allowance				500		
Processor and Vessel sub-total		101,162				
Hook-and-line Catcher/Processors			80	80,930	Jan 1 - Jun 10 Jun 10 - Dec 31	48,558 32,372
Hook-and-line Catcher Vessels			0.3	303	Jan 1 - Jun 10 Jun 10 - Dec 31	182 121
Pot Catcher/Processors			3.3	3,338	Jan 1 - Jun 10 Sept 1 - Dec 31	2,003 1,335
Pot Catcher Vessels			15	15,174	Jan 1 - Jun 10 Sept 1 - Dec 31	9,105 6,070
Catcher Vessels < 60 feet LOA using hook-and-line or pot gear			1.4	1,416		
<u>Trawl gear total</u>	47	93,689				
Trawl Catcher Vessel			50	46,844	Jan 20 - Apr 1 Apr 1 - Jun 10 Jun 10 - Nov 1	32,791 4,684 9,369
Trawl Catcher/Processor			50	46,844	Jan 20 - Apr 1 Apr 1 - Jun 10 Jun 10 - Nov 1	23,422 14,053 9,369
<u>Jig</u>	2	3,987			Jan 1 - Apr 30 Apr 30 - Aug 31 Aug 31 - Dec 31	1,595 797 1,595
Total	100	199,338				

¹ For most non-trawl gear the first season is allocated 60 percent of the ITAC and the second season is allocated 40 percent of the ITAC. For jig gear, the first season and third seasons are each allocated 40 percent of the ITAC and the second season is allocated 20 percent of the ITAC. No seasonal harvest constraints are imposed for the Pacific cod fishery by catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear. For trawl gear, the first season is allocated 60 percent of the ITAC and the second and third seasons are each allocated 20 percent of the ITAC. The trawl catcher vessels' allocation is further allocated as 70 percent in the first season, 10 percent in the second season and 20 percent in the third season. The trawl catcher/processors' allocation is allocated 50 percent in the first season, 30 percent in the second season and 20 percent in the third season. Any unused portion of a seasonal Pacific cod allowance will be reapportioned to the next seasonal allowance.

Table A-4: Pacific cod harvest (retained mt) by sector, 1995 - 2003

Year	Sector	# vessels	Retained Tons, (Round, excluding meal)	% of total annual catch
1995	<60 HAL/Pot CVs	38	900	0.5%
	AFA Nine	9	4,906	2.8%
	AFA Trawl CPs	20	4,300	2.4%
	AFA Trawl CVs	91	39,919	22.5%
	Jig CVs	42	589	0.3%
	Longline CPs	44	87,538	49.2%
	Longline CVs	7	19	0.0%
	Non-AFA Trawl CPs	33	16,018	9.0%
	Non-AFA Trawl CVs	12	3,190	1.8%
	Pot CPs	8	4,406	2.5%
	Pot CVs	106	15,996	9.0%
1995 Total			177,780	100.0%
1996	<60 HAL/Pot CVs	16	131	0.1%
	AFA Nine	9	4,067	2.1%
	AFA Trawl CPs	19	3,228	1.7%
	AFA Trawl CVs	99	51,269	26.3%
	Jig CVs	34	247	0.1%
	Longline CPs	37	82,109	42.2%
	Longline CVs	7	8	0.0%
	Non-AFA Trawl CPs	29	17,578	9.0%
	Non-AFA Trawl CVs	17	3,317	1.7%
	Pot CPs	12	9,166	4.7%
	Pot CVs	95	23,531	12.1%
1996 Total			194,650	100.0%
1997	<60 HAL/Pot CVs	13	56	0.0%
	AFA Nine	9	4,015	1.9%
	AFA Trawl CPs	19	4,556	2.1%
	AFA Trawl CVs	92	53,285	24.7%
	Jig CVs	17	167	0.1%
	Longline CPs	37	108,381	50.3%
	Longline CVs	10	42	0.0%
	Non-AFA Trawl CPs	29	19,537	9.1%
	Non-AFA Trawl CVs	9	3,177	1.5%
	Pot CPs	8	5,169	2.4%
	Pot CVs	77	17,046	7.9%
1997 Total			215,431	100.0%

Table: A-4 continued.

Year	Sector	# vessels	Retained Tons, (Round, excluding meal)	% of total annual catch
1998	<60 HAL/Pot CVs	11	38	0.0%
	AFA Nine	8	3,967	2.4%
	AFA Trawl CPs	16	4,354	2.6%
	AFA Trawl CVs	95	37,579	22.7%
	Jig CVs	10	191	0.1%
	Longline CPs	39	83,837	50.7%
	Longline CVs	3	2	0.0%
	Non-AFA Trawl CPs	23	21,860	13.2%
	Non-AFA Trawl CVs	12	1,541	0.9%
	Pot CPs	5	2,857	1.7%
Pot CVs	71	9,242	5.6%	
1998 Total			165,467	100.0%
1999	<60 HAL/Pot CVs	18	176	0.1%
	AFA Trawl CPs	14	3,686	2.5%
	AFA Trawl CVs	103	32,946	22.8%
	Jig CVs	15	204	0.1%
	Longline CPs	36	65,905	45.6%
	Longline CVs	20	107	0.1%
	Non-AFA Trawl CPs	24	22,098	15.3%
	Non-AFA Trawl CVs	11	1,669	1.2%
	Pot CPs	9	5,578	3.9%
	Pot CVs	89	12,200	8.4%
1999 Total			144,569	100.0%
2000	<60 HAL/Pot CVs	40	251	0.2%
	AFA Trawl CPs	11	1,709	1.1%
	AFA Trawl CVs	99	36,099	22.4%
	Jig CVs	16	79	0.0%
	Longline CPs	41	76,509	47.4%
	Longline CVs	20	223	0.1%
	Non-AFA Trawl CPs	21	24,523	15.2%
	Non-AFA Trawl CVs	11	2,802	1.7%
	Pot CPs	8	2,468	1.5%
	Pot CVs	110	16,800	10.4%
2000 Total			161,463	100.0%

Table A-4 continued.

Year	Sector	# vessels	Retained Tons, (Round, excluding meal)	% of total annual catch
2001	<60 HAL/Pot CVs	41	1,018	0.7%
	AFA Trawl CPs	14	1,432	0.9%
	AFA Trawl CVs	102	18,691	12.3%
	Jig CVs	19	102	0.1%
	Longline CPs	42	86,436	56.7%
	Longline CVs	20	1,332	0.9%
	Non-AFA Trawl CPs	22	23,628	15.5%
	Non-AFA Trawl CVs	14	3,006	2.0%
	Pot CPs	5	2,991	2.0%
	Pot CVs	69	13,916	9.1%
2001 Total			152,553	100.0%
2002	<60 HAL/Pot CVs	32	1,537	0.9%
	AFA Trawl CPs	15	1,287	0.8%
	AFA Trawl CVs	99	33,786	20.3%
	Jig CVs	18	169	0.1%
	Longline CPs	40	79,269	47.7%
	Longline CVs	7	170	0.1%
	Non-AFA Trawl CPs	22	29,757	17.9%
	Non-AFA Trawl CVs	18	5,797	3.5%
	Pot CPs	5	2,059	1.2%
	Pot CVs	55	12,465	7.5%
2002 Total			166,296	100.0%
2003	<60 HAL/Pot CVs	25	1,741	1.0%
	AFA Trawl CPs	13	1,409	0.8%
	AFA Trawl CVs	95	33,562	18.5%
	Jig CVs	15	154	0.1%
	Longline CPs	39	89,703	49.6%
	Longline CVs	7	93	0.1%
	Non-AFA Trawl CPs	22	28,033	15.5%
	Non-AFA Trawl CVs	22	7,542	4.2%
	Pot CPs	3	1,530	0.8%
	Pot CVs	74	17,176	9.5%
2003 Total			180,944	100.0%

Source: WPR reports and ADF&G fishtickets, 1995 - 2003. 2003 data are considered preliminary.

Note: In every year, some percentage of the harvest cannot be assigned to a given catcher vessel sector due to missing fishtickets from mothership deliveries. This harvest was not attributed to any sector in this table and is excluded from the annual total. The percent of harvest that cannot be assigned varies by year and ranges from 0.03% - 2.0%.

Pacific cod harvested with hand troll gear was not included.

Harvest from the 3 surimi-fillet non-AFA CPs was not included.