AGENDA C-4
OCTOBER 2003

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME
6 HOURS

DATE: September 16, 2003

SUBJECT: IR/IU and related amendments

ACTION REQUIRED

(a) Receive Committee report

(b) Discuss implementation issues for Amendment C

(c) Finalize alternatives for Amendment A

BACKGROUND

In October 2002 the Council voted to delay implementation of 100% retention requirements (IR/IU) for flatfish in the BSAI, until June of 2004, in order to pursue alternative means of reducing bycatch/discards of flatfish and other groundfish (Amendment 75). However, in May of 2003, that action was only "partially approved" by the Secretary of Commerce (SOC), effectively eliminating any IR/IU requirements for flatfish in the BSAI. Despite this action on Amendment 75, the Council is continuing to pursue two additional IR/IU amendments in the BSAI, Amendment A and C, (now Amendment 80 and 79, respectively). In the GOA, full retention of flatfish still applies; however, exemptions approved under Amendment D essentially exempt every sector from these requirements due to low discard rates by the fleet.

Action on Amendment 79

In June 2003, the Council completed final action on Amendment 79, which establishes an overall minimum groundfish retention standard for non-AFA trawl catcher/processors greater than 125'. The groundfish retention standard program will be phased in over a four-year period starting in 2005 with the initial minimum retention standard set at 65% of total groundfish catch. In 2006, the minimum retention rate will increase to 75%, followed by 5% increases in both 2007 (80%) and 2008 (85%). At the same time, the Council took final action on a separate regulatory amendment for adjusting the time period in which the Maximum Retainable Allowances (MRA) for pollock is enforced. The MRA amendment changes the timing of when pollock retention standards are enforced from any point during the trip to the time when the product is offloaded from the vessel. Changing the enforcement period is anticipated to reduce pollock discards since vessel operators will not be required to discard pollock if they exceed the retention standard early in a trip. Both amendments are currently being finalized for NOAA review.

During the June 2003 meeting, the Council requested the IR/IU Technical Committee review several issues concerning implementation of the Amendment 79. These issues included: 1) review of the Council's action on Amendment 79 and discussion of implementation issues; 2) identification of options to achieve the pollock MRA objectives; and 3) discuss and develop options for vessels under 125' in the non-AFA head and gut sector. The Committee met in August to address these issues and the minutes of their meeting are attached under Item C-4(a).

Action on Amendment 80

In April the Council reviewed a discussion paper and decision tree for proposed Amendment A (now Amendment 80), that would develop a cooperative structure for the Non-AFA Trawl CP sector. At the April meeting, Amendment 80 was expanded to include allocation alternatives for dividing BSAI groundfish and PSC species among all BSAI fishing sectors. At the June 2003 meeting, the Council requested the IR/IU Technical Committee review the components and options for both sector allocations and the Non-AFA Trawl Catcher/Processor cooperative program and provide recommendations to the Council at their October 2003 meeting.

Currently, Amendment 80 is scheduled for initial review in February 2004 and final action in June 2004 (though initial review in April 2004 may not be a more realistic timeline). Based on input from the Committee, the components and options for Amendment 80 have been revised to include the Committee's recommendations. The revised components and options for sector allocations (Appendix A), the revised components and options for establishing a Non-AFA Trawl Catcher/Processor cooperative program (Appendix B), and the preliminary identification of two alternative Non-AFA Trawl Catcher/Processor sector cooperative structures that are proposed to be analyzed in the amendment package (Appendix C) are included under Item C-4(b). In addition, two discussion papers have been prepared by staff. The first paper, Item C-4(c), addresses three preliminary concerns by the IR/IU Committee using TAC as denominator in calculating sector allocations. The second paper, Item C-4(d), addresses the PSC allocations alternatives.

IR/IU TECHNICAL COMMITTEE REPORT
(August 2003)

The NPFMC's IR/IU Technical Committee (Committee) met at the Alaska Fishery Science Center in Seattle, August 25-27, to discuss a number of issues stemming from the June 2003 Council meeting. The Committee was chaired by Dr. Dave Hanson. Chris Oliver and Darrell Brannan (NPFMC), Marcus Hartley of Northern Economics, Jeff Hartman of NOAA Fisheries, and Kenneth Hansen from the Enforcement Division served as primary staff support for the Committee. Lauren Smoker (NOAA GC), Sue Salveson (SF), and Bill Karp (Observer Program) were also in attendance. Committee members present were Bill Orr, Susan Robinson, Teressa Kandianis, Eric Olson, Dave Wood, Donna Parker, John Henderschedt, and Thorn Smith (for Gerry Merrigan). Others in attendance included Arni Thomson, Eric Hollis, Jan Jacobs, Craig Cross, Ed Lutrell, Bill Atkinson, Mark Lundsten, Terry Lietzel, Dave Benson, and Paul McGregor.

During the first half meeting the Committee addressed issues concerning implementation of the Groundfish Retention Standard (GRS) under Amendment C (approved in June), and the enforcement period change for pollock maximum retainable allowances (MRA)s. During the second half of the meeting the Committee discussed Sector Allocations and Non-AFA Trawl Cooperatives (proposed under Amendment A). The following summarizes the committee discussions and actions.

GROUNDFISH RETENTION STANDARD ISSUES

Certified Observer Stations

NOAA Enforcement clarified that there would be a requirement that all vessels that would have to comply with the groundfish retention standard (GRS) would have to have a certified observer station in addition to motion compensated flow scales, and the requirement that 100 percent of the tows would have to be observed (see discussion below). Industry members indicated that they were fully aware of these requirements, although there was some question on the specifics of the observer station requirements.

Discussion continued around the question of the variability among affected vessels, and the ability to incorporate flexibility into the requirements. It was pointed out that only seven additional vessels would need to be certified under the program. In general it was believed that all of the affected vessels could meet the scale and observer station requirements, but the biggest expense would be the additional observer cost.

Requirement that 100 Percent of Tows be Observed

The Committee discussed the requirement that 100 percent of the tows will need to be observed to enforce the GRS, which could be accomplished through 'alternative catch monitoring plans', as opposed to 200% observer coverage. NOAA Fisheries reiterated that regardless of the 'alternative plan', the minimum requirement would be that 100 percent of tows would be observed. A single observer might be acceptable, but it was indicated that a single observer is limited to 9 hours per day of sampling and 12 hours per day of active duty. Therefore if the fishing vessel wishes to fish and process throughout the day then it is likely that two observers will be required. Committee members expressed a desire for NMFS to work with industry members, either directly or through some committee process, to jointly develop alternative catch monitoring plans that would be acceptable to NMFS.

Industry members of the Committee pointed out that the additional observer costs are likely to be very expensive and asked for clarification of the role of the observers. It was indicated that flow scales will provide an estimate of total catch weight, and the observer's species composition sample will provide an estimate of the proportion of non-groundfish in the tow. Since the denominator of the GRS is total groundfish catch, it is critical that the weight of non-groundfish be determined and subtracted from the denominator. This point raised the suggestion that perhaps total catch should be used in the denominator rather than total groundfish, thereby eliminating the need for observation of 100% of the tows. NOAA Enforcement however indicated that the observers also served the function of monitoring whether all fish were being weighed and that no tampering of the scales had occurred. NOAA Enforcement also indicated that even with two observers in other fisheries, there have been reports of scale tampering.

The discussion then turned to the question of whether video monitoring of scales or the use of private security guards might also be considered an alternatives to observer monitoring. It was acknowledged that technology may exist to adequately monitor scales, but costs and feasibility of such a program were unknown. It was also pointed out that a consultant is currently engaged by the NPFMC to investigate technological issues such as video monitoring.

Benefits of 100 Percent of Tows Observed

Other benefits of having 100 percent of tows observed were briefly discussed. It was pointed out that this level of observer coverage is likely to decrease the level of uncertainty in species composition estimates of catches, and would likely increase the amount of biological information available for fishery scientists. It was also indicated that the increased coverage would create a significant increase in the general public's perception of that the bycatch issue was being monitored.

However, from a statistical perspective it was noted that the improved accuracy of total catch estimates resulting from an increase from 50 percent of tows observed to over 90 percent observed may not significantly decrease the cumulative sampling error around the estimate of total groundfish catch. The lack of improvement is due to the fact that the original sample size (up to 600 tows/year) is quite large.

Strategies to Comply with GRS in 2007 and Beyond

In response to a request by NOAA Fisheries, the Committee discussed potential operational strategies that industry might employ to comply with the GRS. It was generally agreed that with the approval of the change in pollock MRA enforcement periods, compliance to GRS in 2005 and 2006 will not be a major problem (though 75% retention would be a challenge for some individual vessels), but meeting the 80 percent standard in 2007 and 85 percent standard in 2008 is seen by many in the industry as difficult and costly. Suggested strategies to meet the GRS requirements included switching to larger mesh, moving into the Aleutians to target cod as a single species fishery, possibly fishing for more yellowfin sole in the early part of the year, and perhaps limiting participation in the Atka mackerel fishery. The idea behind these strategies would be to start the year in fisheries with relatively low discard rates, this would allow vessels to build up a retention basis against which they could fish in less "pure" fisheries later in the year. Each of these strategies were also noted as being likely to increase the costs of participating in the groundfish fisheries.

It was also suggested that changing the GRS enforcement period so that it runs from July through June could make it easier for some vessels to comply. Boats that currently target the Atka mackerel fishery early in the year might be better off with the existing accounting period. Finally, adjusting the current management system to reduce regulatory discards (perhaps adjusting the MRA for all species) would, in and of itself, increase the ability to meet the overall GRS standard.

Incorporation of Small Vessels (<125') Under GRS

A list of potential options for incorporating small vessels under the GRS was distributed by staff to the Committee. Discussion focused on the impracticality of using certified scales, observer stations, and observers for 100 percent of tows on vessels < 125'. The Committee discussed and modified the list, finishing with a recommendation to forward these to the Council as potential options for consideration. Some of these options will work only if a less stringent monitoring program is deemed acceptable. No options were included that required certified flow scales on these smaller vessels. The Committee stressed their consensus that compliance with the GRS will be difficult and costly without a cooperative for the non-AFA trawl CP sector, particularly the <125' vessels. The Committee also indicated that the list was not exhaustive and that other options could be developed. Finally the Committee noted that it might be reasonable to phase in the GRS, as described in #6, for all vessels not just those < 125'.

1. Use the same monitoring program as in Status quo—30% observer coverage, no scales.
2. Use the same monitoring program as in Status quo—30% observer coverage, no scales, but note that FMP language applies to all vessels. The FMP language could include an agreement that in order to participate in groundfish fisheries all discard data will be made public on an individual vessel basis.
3. Rely on self reporting - and 30% coverage as currently used.
4. 100% of hauls observed but no flow scales
5. Change from a groundfish retention standard to a total catch retention standard.
6. Phase in a program for vessels < 125 after an experimental program on vessels > 125' to correlate:

    a. estimates variance between scale weight and volumetrics,
    b. estimate error rates in groundfish and non-groundfish proportions,
    c. estimate variance between actual PRRs and standard PRRs,
    d. estimate variance in actual product weights and product weight from box counts.

    The experimental results would be used to modify enforcement requirements for vessels < 125, or conceivably on larger vessels as well.
7. Consider the use of video monitoring for enforcement, noting a number of unresolved issues, paying particular attention to confidentiality and FOIA-bility.

Maximum Catch Criteria for Continued Exemption of Small Vessels

The question of whether a maximum catch standard for the small vessel exemption should be reopened was discussed. It was noted that vessels in the <125' class were not able to easily or efficiently modify catching or processing capacity to increase removals or discards of groundfish. Therefore, it was not considered to be necessary to incorporate an additional catch threshold to constrain catches of this vessel group beyond the technical and economic constraints that presently exist. Some members of the Committee believed the maximum catch criteria for exemption from GRS may have merit if applied to all vessels, not just those < 125'.

MAXIMUM RETAINABLE ALLOWANCE (MRA) ISSUES

Draft Proposed Regulations

Draft proposed regulations implementing the enforcement period change for the MRA were distributed by NOAA Fisheries and discussed by the Committee. The Committee had no significant comment on the proposed regulations.

Options to Insure That Total Pollock Catch by Non-AFA Trawl CPs Does Not Increase

The Committee discussed options to limit total pollock catch by the non-AFA Trawl, and were provided detailed information by staff regarding catch and retention rates by quarter. The options discussed would establish protocols for setting the Incidental Catch Allowance (ICA) for pollock and would impose a prohibition against directed fishing for pollock (pollock exceeds 50 percent of catch in a tow) at any time during a trip. The information provided by staff indicated that there is not currently a problem in this regard, but that a specific DFS as proposed would not hurt anyone. There was lengthy discussion among the committee members, but no consensus to forward the specific proposal to the Council. However, it was recommended that an annual report on pollock incidental catch (bycatch and retention rates) be provided to the Council, with the intent for a regulatory amendment change if warranted. Further, the committee recommends that if changes are made to the ICA, over the current 3.5% for example, NOAA Fisheries should document that such change was consistent with the intent of the Council's MRA actions in June 2003, and whether such changes were attributable to increased harvesting of pollock by a given sector, or other factors.

AMENDMENT A

The Committee discussed the refinement of components and options for amendments that would create BSAI sector allocations (Amendment A-1, or 80-a) and Non-AFA Trawl CP cooperatives (Amendment A-2, or 80-b).

Sector Allocation Issues (A-1) - Amendment #80-a

Sector allocation issues were considered first. Sector allocation provisions were divided into two major issues and provided to the Committee. The Committee discussed the provisions, made changes and recommended they be forwarded to the Council (The approved provisions are included in Appendix A). Issue 1 defines the sectors and the participation requirements a vessel must meet to qualify for a sector. The Committee members reviewed the list of sectors and discussed the impacts of having separate allocations to the Non-AFA Trawl CV sector and the AFA Trawl CV sector and decided not to alter the sectors being considered for an allocation. They also agreed to retain the six options that define the years used to determine whether a vessel met the minimum landings requirements. Three options (0mt, 50mt, and 250mt) were added to the list of minimum landings requirements to qualify to participate in a sector. These alternatives were added because the Committee felt that a broader set of options was needed to reflect the historic participation of all sectors being considered for an allocation. The Committee also clarified that the minimum landings requirements recommended in the package would be based on the vessel's total catch over the time period.

Given the minimum landing requirements being considered to qualify for a sector, the Committee discussed what happens to vessels that do not qualify. It is envisioned that sector eligibility will be reflected as an endorsement on a groundfish license. Persons that hold a license with no sector endorsements will not be

allowed to participate in any sectors. Further discussion is needed regarding how vessels that are exempt from the LLP will be treated. However, at a minimum, they would likely be required to obtain a permit to fish in a sector so their harvest could be deducted from the appropriate sector.

The rules for defining the species being allocated to a sector and the amount of each sector's allocation were discussed under Issue 2. During that discussion, two options listing the species to be included in the sector allocations were added to Component 4. The options are the same as those previously included in the Non-AFA Trawl CP sector's cooperative allocation. One of the options would only allocate target species. If bycatch species are not allocated to sectors, those species will be harvested from an open access pool and managed under the status quo. The Committee then requested that the analysis include a discussion of using ICA's to manage bycatch for all species except Pacific cod and pollock.

The Committee reviewed the methods for determining the percentage of total catch that each sector would be allocated. Members of the Committee felt that retained catch divided by TAC was not an appropriate allocation method, and **recommends to the Council that it be removed from the list of options.** Much of the concern express by the Committee centered around potential "squid-box" issues and management of the portion of the TAC that is not assigned to a particular sector (unallocated fish).

The Committee noted that the analysis of alternatives changing CDQ percentages needs to be thorough. Members were concerned that the CDQ portion of the analysis would be scaled back because of the magnitude of the overall amendment package and the short time line for completion.

Members of the **Committee recommended that the amendments for the sector allocation and Non-AFA Trawl CP cooperatives be inextricably linked.** However, they did agree that sector allocations could be implemented first if that regulatory process works faster once both amendments are approved by the SOC.

Non-AFA Trawl CP Cooperatives (A-2) - Amendment #80-b

Alternatives for developing Non-AFA Trawl CP cooperatives were discussed next. Several changes were made to the list of components and options that was provided to the Committee. Those changes are reflected in the revised list of options that is attached in Appendix B. In addition to those changes the Committee discussed whether vessels <125' LOA would be allowed to join the cooperative if they are not subject to the IR/IU GRS. This issue will be discussed in the analysis, and will consider factors such as the use of flow scales on a vessel and observer coverage levels.

A review of the "bookend" alternatives that are being considered to aid the analysis processes were discussed next. Those alternatives were modified from their original construction and new alternatives are attached to these minutes as Appendix C.

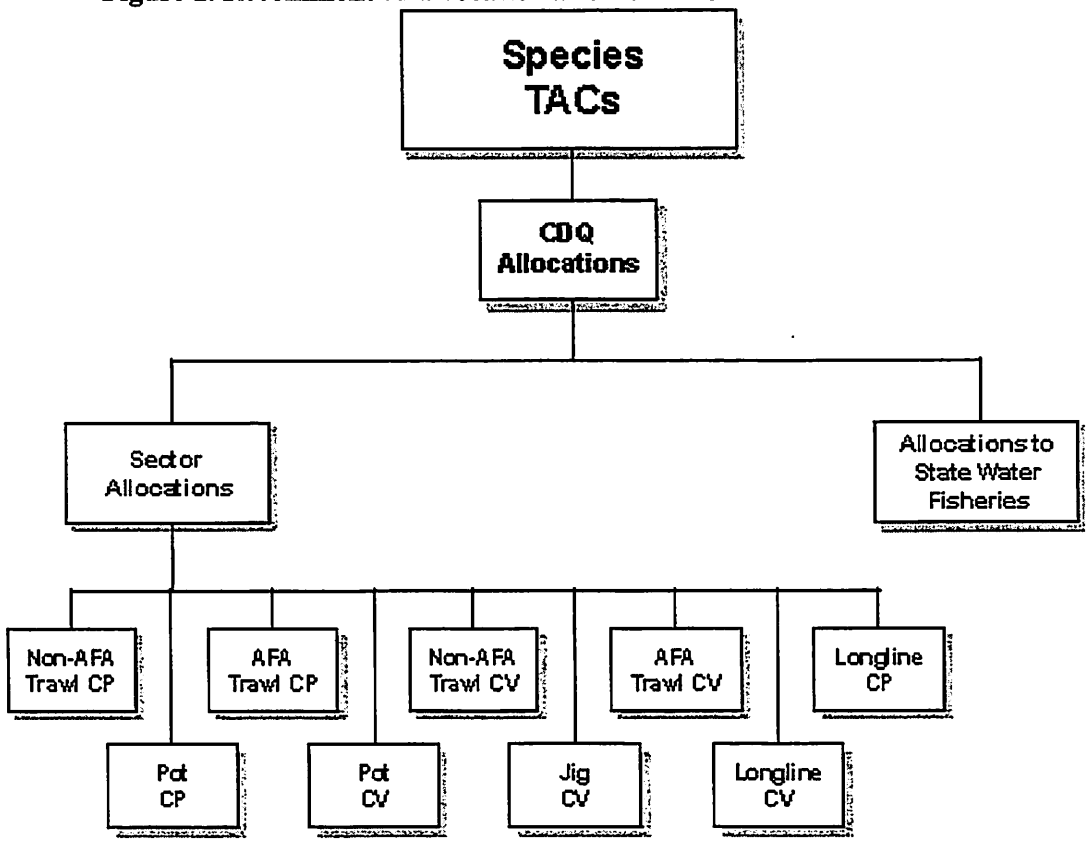
Committee review of non-coop alternatives

At NMFS' request, the Committee provided several reasons why rationalization through the proposed cooperative program designs constitute a reasonable range of alternatives for this analysis (as opposed, for example, to an individual quota based program, including (1) the efficiency of cooperatives for privately negotiating internal allocations; (2) the built in protections for processing investments; (3) the well documented success of existing AFA cooperative program; (4) inability of a quota based program to create tradeable quota for bycatch fisheries; (5) government costs associated with setting up and managing quota based programs; and, (6) advantage of a cooperative to adapt and be flexible to new allocation problems.

State Water Fisheries

Finally, the Committee considered the impacts of the Board of Fish implementing state-waters fisheries in the BSAI. The primary concern was the development of structure that would prohibit persons from harvesting their sector's allocation and then moving into the state-water fishery and increasing their harvest. Several options were discussed to prohibit that activity, but no alternatives to address that potential problem were recommended by the Committee. A second concern was that the selection of any new BSAI state waters fisheries for groundfish could eliminate the incentive for a sector to create a cooperative, thus reducing the effectiveness of the proposed rationalization program. The Committee did recommend that if a state-waters fishery is implemented in the BSAI, the allocation to the state-waters fishery should be taken out of the TAC before the sector allocations are made. That would result in all sectors proportionately bearing the cost of funding that fishery. A visual representation of the recommended allocation process is shown in Figure 1.

Figure 1. Recommended Allocation Process for State Water Fisheries



Appendix A:

Notes on keys to reading this document: Bolded and underlined text represents an option that the IRIU Committee recommends should be added to the list of components and options the Council developed during their June meeting. The Committee recommends deleting highlighted text from the Council's list of components and options.

Components and Options for Amendment 80.a—BSAI Sector Allocations

Introduction

The IR/IU analytical team recommends that the sector allocations of BSAI groundfish and PSC limits be separated from the action of establishing a non-AFA Trawl CP Cooperative Program, but packaged under the same FMP amendment—Amendment 80.a would provide for sector allocations and Amendment 80.b would establish a non-AFA Trawl CP Cooperative Program. The reason for the separation is that the sector allocations encompass all sectors in the BSAI, while the formation of the cooperative program pertains only to the non-AFA Trawl CP sector.

Furthermore, the IRIU analytical team presumes that at a minimum sector allocations need to be approved before at the same time as establishing a non-AFA Trawl CP Cooperative Program. The timing of approval is important because two conditions for the successful private negotiation of cooperatives are: 1) well-defined sectors each consisting of a sufficiently small number of vessels, and 2) allocations of groundfish and/or PSC limits that are available only to the vessels in each sector.

Amendment 80—BSAI Sector Allocations

Issue 1: Sector Definitions

For purposes of groundfish and PSC apportionment to sectors, the following sectors will be defined:

Non-AFA Trawl CPs	AFA Trawl CPs	Non-AFA Trawl CVs	AFA Trawl CVs	Longline CPs
Pot CPs	Pot CVs	Longline CVs	Jig CVs	

Note that this action does not contemplate changing fixed gear sector definitions for Pacific Cod, which were defined in Amendment 67.

Component 1 Determines whether a vessel because of its use of multiple gears over time may be part of more than one sector.

Option 1.1 A vessel may qualify for more than one sector.

Suboption 1.1.1 **Vessels will lose that catch history in sectors for which they do not qualify, but the sector will retain that catch history.**

Suboption 1.1.2 **Vessels will retain that catch history in sectors for which they do not qualify, and may assign that catch to any sector for which they do qualify.**

Option 1.2 A vessel will only be eligible to participate in one sector. Catches of vessels that are not eligible for the sector will not be included in the sector's apportionment. Each vessel's sector will be determined by:

Suboption 1.2.1 The sector in which it has the highest level of participation during the years used for the sector definitions.

Suboption 1.2.2 The sector in which it most recently participated during the years used for the sector definitions.

Component 2 Vessels will be determined to be eligible for a given sector if they meet minimum landings requirements (see the next component) in the years selected from the following:

Option 2.1 1995-1997
Option 2.2 1995-2002
Option 2.3 1997-2002
Option 2.4 1998-2002
Option 2.5 1999-2002
Option 2.6 2000-2002

Component 3 Vessels will be determined to be eligible for a given sector if, during the previously specified sets of years, the vessel meets the minimum landings criteria selected from the following:

Option 3.1 0 MT
Option 3.2 50 MT
Option 3.3 100 MT
Option 3.4 250 MT
Option 3.5 500 MT
Option 3.6 1,000 MT

Issue 2: Sector Allocations of Groundfish in the BSAI

Sector-level apportionments of groundfish (excluding pollock and any other species for which an allocation could create a "squid-box situation") will be accomplished in the Bering Sea by choosing preferred options (and suboptions) from each of the components listed below. ***NOTE: Inserting new components 4 and 5 has changed the component numbers for the remaining components relative to previous Council documents.***

Component 4 Identifies which species will be included in the sector allocations

Option 4.1 Include all groundfish species except pollock already allocated to AFA fishery cooperatives.

Suboption 4.1.1 Exclude certain species to prevent allocations that are so small that they preclude sectors from harvesting their allocation of species typically taken in directed fisheries. Allocations of species that are excluded would be allocated as they are under status quo, and managed as in the following component.

Option 4.2 Include only the following target species—Pacific cod, yellowfin sole, rock sole, flathead sole, Atka mackerel, Greenland turbot, AI Pacific ocean perch. Species could be added or deleted through an amendment process. Allocations of species that are excluded would be allocated as they are under status quo, and managed as in the following component.

Suboption 4.2.1 *(Added by staff)* Sectors that do not participate in target fisheries for a species in this option would not be allocated sector specific apportionments for that species. These species would be managed as in the following component.

Component 5 Management of non-target species.

Option 5.1 Use the current management system.
Option 5.2 Use ICAs for all non-target species—ICAs would be managed as soft caps.
Option 5.3 Use ICAs for all non-target species—ICAs would be managed as hard caps.

NOTE: Components 6 and 7 were restructured to capture both issues addressed under the old Component 4

Component 6 Sector Allocation Calculation (*after deductions for CDQs*):

Option 6.1 Allocations each species allocated to the sector, each sector shall be allocated the percentage of the TAC that is equal to the average over the years specified in the following component of the annual percentage of harvest by vessels in the sector, relative to the amount of that species harvested by all vessels in all sectors.[1]

Component 7 Sector Catch History Years

Option 7.1 1995–1997

Option 7.2 1995–2002

Option 7.3 1995–2002, excluding 2000 because of the injunction

Option 7.4 1998–2002

Option 7.5 1998–2002, excluding 2000 because of the injunction

Option 7.6 2000–2002

Component 8 For purposes of apportionments, annual catch percentages will be defined using one of the following:

Option 8.1 Total catch of the sector over total catch by all sectors

Option 8.2 Retained catch of the sector over retained catch by all sectors

Option 8.3 Retained catch of the sector over the TAC

Option 8.4 Total catch of the sector over the TAC

Note: The Committee only recommends including Option 8.4 if the Council keeps Option 8.3.

Component 9 Pacific cod allocations will be determined as follows:

Option 9.1 Pacific cod shall be allocated in the same method used to allocate the other targeted species. This option would supercede all existing apportionments of Pacific cod in the BSAI, including splits among the fixed gear sectors. *It is presumed this was the intent of the Council when approving this option of the IRIU motion in April. If the Council's intent was to modify allocations to fixed gear as a single sector, then Council should provide additional guidance to the analytical team.*

Option 9.2 Pacific cod shall be allocated based on apportions in regulation with an additional split of the Trawl CP apportionment as follows:

- Non-AFA Trawl CPs will be allocated 18.3 percent of the Pacific cod TAC available for the after deduction for the CDQ program.
- AFA Trawl CPs will be allocated 5.2 percent of the Pacific cod TAC available for the after deduction for the CDQ program.

Option 9.3 Pacific cod shall be allocated based on splits currently in regulation, but reducing trawl CV and trawl CP apportionments and increasing the apportionment to the fixed gear sector by the average of the percentages of the

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[1]The equation shown describes the allocation for a given sector, species, and year:

$$A(x,y,z) = TAC_{y,z} \cdot \frac{\sum_{n=N_1}^{N_2} C_{n,x,y}}{\sum_{x=1}^{X} \sum_{n=N_1}^{N_2} C_{n,x,y}} \cdot \frac{1}{N_2 - N_1 + 1}$$

where:

x is the sector,

y is the species,

z is the year for which the allocation is to be determined,

n is the year used in the allocation determination (starting with year N_1 and ending with year N_2),

$C_{n,x,y}$ is the catch of species y by vessels in sector x in year n,

$TAC_{y,z}$ is Total Allowable Catch for species y in year z, and

$A(x,y,z)$ is the allocation for a given sector (x), species (y), and year (z).

TAC (after CDQ apportionments) that were rolled over from trawl to fixed gear during the years in the suboptions below. The increased allocation to the fixed gear sector would be divided among fixed gear sectors according to trawl rollover provisions in existing regulations.[2] Allocation of the remaining trawl CV and CP apportionments would be based on either Option 9.1 or 9.2.

Suboption 9.3.1 1995–1997

Suboption 9.3.2 1995-2002

Suboption 9.3.3 1995-2002, excluding 2000 because of the injunction

Suboption 9.3.4 1998-2002

Suboption 9.3.5 1998–2002, excluding 2000 because of the injunction.

Suboption 9.3.6 2000–2002

Option 9.4 Pacific cod shall be allocated among fixed gear sectors based on the allocations approved in BSAI Amendment 77 (see Table 3.27 on page 110 of the public review draft of Amendment 77). Allocation of the Trawl apportionment between AFA and non-AFA sectors would be based on Option 9.1 or 9.2.

Component 10 CDQ Allocations shall be removed from the TACs prior to allocation to sectors at percentage amounts equal to one of the following.

Option 10.1 7.5% of the TAC of each species in the program

Option 10.2 10% of the TAC of each species in the program

Option 10.3 15% of the TAC of each species in the program

Option 10.4 20% of the TAC of each species in the program

Component 11 **If, in the future, there is a specific allocation to a state water fishery in the BSAI, the allocation would be deduction from the TAC before the allocations to specific sectors are calculated. *(Added by staff based on committee concerns—See Figure 1 in the committee minutes).***

Issue 3: Sector Allocations of Prohibited Species Catch Limits in the BSAI

Sector allocations of PSC Limits in the BSAI will be accomplished by choosing preferred options and suboptions from the following list of components.

Component 12 Prohibited speices bycatch allowances shall be initially assigned to fishery groups (e.g. the rock sole/flathead sole/other flatfish group) based on the relative bycatch apportionments for the years used to determine the groundfish sector apportionments, expressed as a percentage of the total PSC allowance. *(In other words a weighted average of the of the PSC apportionment to each fishery group would be estimated and express as a percentage of the the PSC)*

Option 12.1 Each sector shall be initially assigned an amount of each PSC allowance by fishery group based on each sector's historic rates during the period used to determine groundfish apportionments, relative to the total use of the PSC allowance during that same period. For example, if the Non-AFA Trawl CPs used 40 percent of the halibut PSC used by the trawl fleet in the Pacific cod fishery during the period used to determine groundfish apportionments, the Non-AFA Trawl CPs would be initially assigned 40 percent of the halibut PSC initially assigned to Pacific cod trawl fisheries. The overall PSC allocations

[2]The current regulation (approved under Amendment 64) apportions 95 percent of trawl rollover to Longline CPs and 5 percent to Pot vessels. Amendment 77 which is slated to supercede Amendment 64, proposes to continue the same split of trawl rollovers.

could be reduced or kept at current levels by applying one of the following percentages to the overall PSC limit.

Suboption 12.1.1 60%

Suboption 12.1.2 75%

Suboption 12.1.3 90%

Suboption 12.1.4 95%

Suboption 12.1.5 100%

Option 12.2 Apportion PSC allowances to sectors in proportion to groundfish apportionments to sectors determined above.

For example, if the Non-AFA Trawl CPs are allocated 33.9 percent of the trawl apportionment of Pacific cod, the Non-AFA Trawl CPs would be allocated 33.9 percent of the halibut PSC allowance made for trawl Pacific cod.

Appendix B:

Amendment 80.b—Establishment of a Non-AFA Trawl CP Cooperative Program

The Purpose of the Non-AFA Trawl CP Cooperative Program

The purpose of the program is to reduce discards in the Non-AFA Trawl CP Sector by promulgating regulations that facilitate private negotiation of fishery cooperatives among vessels in that sector. When the race for fish is eliminated by the formation of a cooperative, fishermen are able to fish more cleanly, as they can fish in a less hurried fashion and avoid or discontinue fishing in areas where the catch of unwanted species is high without losing any competitive advantage. Furthermore, a cooperative may encourage collective efforts by industry to reduce incidental catch. For example, a cooperative may restrict the harvest of target species in areas of high incidental catch to member vessels with low retention rates as an incentive to promote cleaner fishing practices. In addition, the infrastructure of a cooperatives facilitates the exchange of fishing information (e.g., the location on "hotspots") among fishermen, which can lead to reductions in discards. Without the benefits offered by a cooperative it is unlikely that vessels in the Non-AFA Trawl CP Sector will be able to meet Council discard reduction goals and still maintain economic viability.

This amendment divides the allocations of groundfish and/or PSC limits to the Non-AFA Trawl CP Sector between two pools of vessels—one pool is for vessels in the Non-AFA Trawl CP Sector that join a cooperative and the other is for vessels in the sector that choose to stay out of the cooperative system and fish in an "open access" fishery. Vessels in a given pool will be allowed to continue to participate in target fisheries subject to PSC limits as long as the pool's PSC limits have not been attained. Similarly, vessels in a given pool will be allowed to continue to participate in target fisheries subject to attainment of groundfish catch limits. Once a pool has attained a particular PSC or groundfish catch limit, vessels in that pool will be restricted as per existing regulations.

Components of a Non-AFA Trawl CP Cooperative Program

NOTE: Bullets added to this section represent cooperative components that the committee felt did not need additional alternatives. The addition of a bullet usually corresponds with the committee's recommendation to drop a component from the list of components and options that follow the bullets.

There are alternative ways to design a Non-AFA Trawl CP Cooperative Program, but each way is made up of a set of components that when taken together define a program. Some of the program components have various options (under Component 1, for example, the groundfish species included in the program may vary), but other components do not. These "single-option" components are common for any cooperative program that might be developed, and are listed below.

- The Program would limit its scope to selected groundfish and prohibited species catches with trawl gear by vessels in the Non-AFA Trawl CP Sector in the BSAI. Groundfish species not included in the program as well as other non-specified fish species or marine resources would not be explicitly managed within the Program, although other regulations regarding these other marine resouces would not be superceded.
- The Program will not supercede pollock and Pacific cod IRIU programs, nor will it supercede the Groundfish License Limitation Program. All vessels participating in the program will need to have trawl endorsements with general licenses for BSAI. Length limits within the license will also be enforced such that any new vessel entering the fishery may not exceed the Maximum Length Overall (MLOA) specified on the license.
- Any non-trawl or non-BSAI catches of vessel that are considered part of the non-AFA Trawl CP Sector will not be included in the Program, but would not necessarily be excluded from other rationalization programs.
- New PSC limits for the following species will be created and allocated to the non-AFA trawl catcher processor sector.

- BSAI non-AFA trawl catcher processor multi-species halibut cap consisting of an apportionment of species identified in Component 1.
- BSAI non-AFA trawl catcher processor multi-species red king crab cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.
- BSAI non-AFA trawl catcher processor multi-species snow crab (C. opilio) cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries (includes apportionments of the trawl sablefish/turbot/arrowtooth limits).
- BSAI non-AFA trawl catcher processor multi-species Tanner crab (C. bairdi) Zone 1 cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.
- BSAI non-AFA trawl catcher processor multi-species Tanner crab (C. bairdi) Zone 2 cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.

- **Disposition of groundfish species not allocated to the Non-AFA Trawl CP sector would not change from the status quo.**
- **Bycatch limits for non-specified species or marine resources specifically for this program would not be established. However, should unreasonable bycatch or other interactions occure, specific regulations to minimize impacts will be considered.**
- **A Groundfish LLP is required for a Sector Eligibility Endorsement for the Non-AFA Trawl CP Cooperative program.**
- Annual allocations to the cooperative that result from catch histories of participating vessel will be transferable among cooperative members. Such transfers would not need to be approved by NOAA Fisheries. Any member vessel of the cooperative will be eligible to use the catch history of any other member vessel regardless of vessel length.
- Permanent transfers of Sector Eligibility Endorsements would be allowed if transferred with the associated Groundfish LLP. Sector Eligibility Endorsement and associated catch histories would not be separable or divisible. All transfers must reported to NOAA Fisheries in order to track who owns the Sector Eligibility Endorsements. The purchaser must be eligible to own a fishing vessel under MarAd regulations or any person who is currently eligible to own a vessel. ***NOTE: This bullet is the result of up cleaning up the language in two bullets from the old version.***
- **The GRS would be enforced on the cooperative as an aggregate and on the open access vessels as individuals. If the cooperative cannot meet the standard in the aggregate over a period of two years then the standard would be imposed on individual vessels within the cooperative.**
- Vessels participating in the open access portion of the program will be subject to all the same regulations they would be without the Program including all restrictions of the LLP and the Groundfish Retention Standards (Amendment 79) if they are approved.
- **A cooperative created under this program must have adequate internal rules. Evidence of binding private contracts and remedies for violations of contractual agreements are required to be provided to NOAA Fisheries. The cooperative must demonstrate an adequate mechanism for monitoring and reporting prohibited species and groundfish catch. Vessels participating in the cooperative must agree to abide by all cooperative rules and requirements.**
- Specific requirements for reporting, monitoring and enforcement requirements, and observer protocols will be developed for vessels participating in the cooperative portion of the Program in rulemaking process and will not be the purview of the cooperataive. The NPFMC and the Non-AFA Trawl CP Sector need to specify their goals and objectives for in-season monitoring and for program evaluation. Recordkeeping and reporting portions of the program can then be developed to ensure that goals and objectives of the program are met in a cost effective manner.

- Review of the non-Trawl CP program will be accomplished by requiring a detailed annual report from any cooperative formed. Fishery managers will review the annual report and determine if the program is functioning as desired. It is recommended that in-depth assessments of program could be undertaken under the auspices of the Council/NOAA Fisheries be undertaken periodically (every three years, for example). Such in-depth studies will report the accomplishments of the program and indicate whether any changes are necessary.

- Socioeconomic data collection programs have been included in AFA, and crab rationalization programs, and are proposed in the GOA Rationalization program. Therefore the analytical team assumes that a socioeconomic data collection initiative would be developed and implemented under the Non-AFA Trawl CP Cooperative Program. The collection would include cost, revenue, ownership and employment data on a periodic basis to provide the information necessary to study the impacts of the program. Details of the collection will be developed in the analysis of the alternatives.

Specific Components & Options that Combine to Create Alternative Non-AFA Trawl CP Programs

By choosing options from each of the following 8 components, the Council can develop specific alternative programs for the non-AFA Trawl CP Sector. The analytical team believes that the components and options below are the minimum necessary for the successful development of the Program. It is possible that some of the options listed could be eliminated by the Council, if it is determined that a particular option is unreasonable or impractical. It is also possible for the Council to add other options to this list as they desire. For comparison, the original decision point number is included for each of the remaining components.

Component 1 Identifies which species will be allocated among the non-AFA trawl catcher processor sector.

Option 1.1 Include all groundfish species for which trawling is allowed, except pollock already allocated to AFA fishery cooperatives.

Suboption 1.1.1 Exclude certain species to prevent allocations that are so small that they preclude persons from harvesting their allocation of species that are typically taken in directed fisheries. Allocations of groundfish species that are excluded would be regulated as they are under the status quo.

Option 1.2 Include only the following target species—Pacific cod, yellowfin sole, rock sole, flathead sole, Atka mackerel, Greenland turbot, AI Pacific Ocean perch. Species could be added or deleted through an amendment process. Allocations of groundfish species that are excluded would be regulated as they are under the status quo.

Option 1.3 Include only PSC species. All groundfish species allocations would be regulated as in the current status quo.

Component 2 Determines the disposition of incidental catch allowances of pollock for the Non-AFA Trawl CP Sector. *(Formerly DP 2.)*

Option 2.1 Status Quo: A predetermined percentage of the pollock TAC is set aside for use as incidental catch. Up until the point the incidental catch set-aside has been caught, all pollock must be retained up to the MRB amount. After the incidental catch set-aside has been caught, pollock can not be retained by non-AFA vessels. The MRA is monitored and enforced such that a violation at any point in time can be prosecuted.

Option 2.2 A predetermined percentage of the pollock TAC is set aside for use as incidental catch. Up until the point the incidental catch set-aside has been caught, all pollock must be retained up to the MRB amount. After the incidental catch set-aside has been caught, pollock can not be retained by non-AFA vessels. In addition, NOAA

Fisheries manages ICA for pollock as it does now (Option 2.1) but adjusts the MRB percentage to insure that the historical bycatch requirements of pollock in the non-pollock fisheries are not exceeded. MRB percentage adjustments can be made by NOAA Fisheries either in-season or inter-annually to discourage increased bycatch (incidental catch) of pollock should pollock harvest amounts indicate that this is occurring. The MRB percentage could be 0-49% subject to the stipulation that non-AFA vessels are not engaged in directed fishing for pollock at any point in their fishing trips. The intent of this approach is to allow increased retention of pollock without increasing the relative bycatch requirements of the non-pollock fisheries.

Option 2.3 A predetermined percentage of the pollock TAC is set aside for use as incidental catch. Up until the point the incidental catch set-aside has been caught, all pollock must be retained up to the MRB amount. After the incidental catch set-aside has been caught, pollock can not be retained by non-AFA vessels. In addition, NOAA Fisheries manages ICA for pollock as it does now (Option 2.1) but adjusts the MRB percentage to insure that the historical bycatch requirements of pollock in the non-pollock fisheries are not exceeded. MRB percentage adjustments can be made by NOAA Fisheries either in-season or inter-annually to discourage increased bycatch (incidental catch) of pollock should pollock harvest amounts indicate that this is occurring. The MRB percentage could be 0-49% subject to the stipulation that non-AFA vessels are not engaged in directed fishing for pollock at any point in their fishing trips. The intent of this approach is to allow increased retention of pollock without increasing the relative bycatch requirements of the non-pollock fisheries. In addition, the way MRB compliance is accounted for in fishing trips could be modified. Currently, it is enforced at any point in a trip. Alternatively, enforcement of MRB compliance could occur at other time periods. The intent of this approach is to allow increased retention of pollock without increasing the relative bycatch requirements of the non-pollock fisheries.

Component 3 Establishes procedures for reducing prohibited species catch limits for the non-AFA Trawl CPs Sector.

Option 3.1 No change in overall amount of the current PSC limits.

Option 3.2 Reductions in the PSC limit for halibut is accomplished by taxing in-season non-permanent transfers of PSC within the cooperative. The halibut PSC limit is restored to it original level the following year

Suboption 3.2.1 Transfers of PSC after August 1 are not taxed .

Suboption 3.2.2 Only un-bundled transfers of PSC are taxed.

Option 3.3 Reduce halibut PSC limits by 5% when PSC limits are linked to estimated biomass levels.

Component 4 Determines how a GRS (Amendment C) is applied. *(Formerly DP 6.)*

Option 4.1 Impose a GRS on the cooperative as an aggregate and on the open access vessels as individuals. If the cooperative cannot meet the standard in the aggregate over a period of two years then the standard would be imposed on individual vessels within the cooperative.

Option 4.2 Impose a GRS on all individual vessels in the non-AFA Trawl CP sector from the outset.

Component 5 Identifies the vessels that are in the non-AFA trawl CP sector which would receive Sector Eligibilty Endorsements. (It may be that some vessels identified as part of the sector in Amendment 80.a, may not be issued Sector Eligibility Endorsements.) Owners of each

qualified vessel would be issued a Sector Eligibility Endorsement that will be attached to that vessel's LLP identifying it as a member of the non-AFA Trawl CP Sector.

Option 5.1 Non-AFA Fishing vessels registered under MarAd regulations and any other vessels eligible to participate in fish harvesting in the Alaska EEZ are eligible for a sector endorsement to be attached to their groundfish license.

Suboption 5.1.1 In addition, vessels must have caught 500 mt. of groundfish with trawl gear and processed that fish between 1998-2002

Suboption 5.1.2 In addition, vessels must have caught 1,000 mt. of groundfish with trawl gear and processed that fish between 1998-2002

Suboption 5.1.3 In addition, vessels must have caught 500 mt. of groundfish with trawl gear and processed that fish between 1997-2002

Suboption 5.1.4 In addition, vessels must have caught 1,000 mt. of groundfish with trawl gear and processed that fish between 1997-2002

The original list included 100 mt and 150 mt, but subsequent analysis indicates that these lower levels have no impact on the number of qualified vessels.

Component 6 Establishes the percentage of eligible vessels that must join a cooperative before the cooperative is allowed to operate. No later than December 1 of each year, an application must be filed with NOAA fisheries by the cooperative with a membership list for the year. In order to operate as a cooperative, members, as a percent of eligible non-AFA Trawl CPs, must be:

Option 6.1 At least 51 percent

Option 6.2 At least 67 percent

Option 6.3 At least 75 percent

Option 6.4 At least 80 percent

Option 6.5 At least 90 percent

Component 7 Determines the method of allocation of PSC limits and groundfish between the cooperative and open access pools.

Option 7.1 Catch history is based on total catch

Option 7.2 Catch history is based on total retained catch

Component 8 Determines which years of catch history are used in the calculation. The allocation of groundfish between the cooperative and open access pool is proportional to the catch history of groundfish in the vessels included in each pool. Applicable PSC limits are allocated between the cooperative and open access pool in same proportions as those species that have associated PSC limits. The catch history as determined by the option selected under this component will be indicated on the Sector Eligibilty Endorsement which indicates the vessel's membership in the Non-AFA Trawl CP Sector. The aggregate histories will then applied to whichever either the cooperative or the open access pool.

Option 8.1 1995-2002

Option 8.2 1995-2002, but each vessel drops its lowest annual catch during this period

Option 8.3 1998-2002

Option 8.4 1998-2002, but each vessel drops its lowest annual catch during this period

Option 8.5 1999-2002

Option 8.6 1999-2002, but each vessel drops its lowest annual catch during this period

Option 8.7 2000-2002.

Option 8.8 2000-2002, but each vessel drops its lowest annual catch during this period

Component 9 Establishes restrictions on permanent transfers of Sector Eligibility Endorsements. *(Formerly DP 15.) It is presumed that annual allocations within a cooperative may be transferred among participating vessels.*

Option 9.1 Sector Eligibility Endorsements are transferable with the associated Groundfish LLP. All transfers must reported to NOAA Fisheries in order to track who owns endorsements for purposes of determining cooperative and open access pool sizes.

Option 9.2 Sector Eligibility Endorsements and associated LLPs are not transferable for the first three years of the program. *(This option may be critical if a sector apportionment is not attained and an interim Program based only on PSCs is created.)*

Component 10 Determines who may purchase a Sector Eligibility Endorsement. *(Formerly DP 16.)*

Option 10.1 The purchaser must be eligible to own a fishing vessel under MarAd regulations or any person who is currently eligible to own a vessel.

Option 10.2 The purchaser must own a vessel that is eligible to join the cooperative.

Component 11 Determines if excessive share limits are established in the non-AFA trawl catcher processor sector.

Option 11.1 There is no limit on the consolidation in the non-AFA trawl catcher processor sector.

Option 11.2 Consolidation in the non-AFA trawl CP sector is limited such that no single company can harvest more than a fixed percentage of the overall sector apportionment. Companies that exceed the cap in the initial allocation would be grandfathered.

Component 12 Establishes measures to mitigate negative impacts of the cooperative on fisheries not included in the cooperative program (e.g. fisheries in the GOA).

Option 12.1 Sideboards for cooperative members would be established by regulation using the same years used to calculate the apportionment of PSC and groundfish between the cooperative and open access pool until such time as these other fisheries are rationalized, when the allocations determined in these newly rationalized fisheries.

Option 12.2 The cooperative is required to prohibit members in the aggregate from exceeding their maximum percent of harvests in other target fisheries. Sideboards would not be established by regulation. This restriction would be discussed in the annual report of the cooperative submitted to the Council and NOAA Fisheries.

Appendix C:

Preliminary Identification of Alternative Actions for Amendment 80.b

Based on various combinations of the program components described above, the IR/IU analytical team identified a number of possible alternative actions that could be considered in an EA/RIR/IRFA for Amendment 80.b. In addition to the status quo/no action alternative (Alternative 1), three alternatives were identified that are designed to facilitate private negotiation of fishery cooperatives among vessels in the Non-AFA Trawl CP Sector. Two of these alternatives (Alternative 2 and Alternative 3) are similar in that they would both allocate groundfish as well as PSC limits to a cooperative, but the alternatives differ with respect to the amount of flexibility offered in the formation and operation of a cooperative.

Both alternatives that facilitate the formation of a cooperative involve a two-step allocation of groundfish and PSC limits. During the first step an allocation of the total allowable catches (TACs) for specified groundfish and PSC limits are made to the Non-AFA Trawl CP Sector (Amendment 80.b). During the second step allocations made to the Non-AFA Trawl CP Sector are divided between vessels that join a cooperative and vessels that choose to stay out of the cooperative system and fish in an "open access" fishery.

The two alternatives facilitating the formation of a cooperative have this two-step allocation process in common as well as all of the bulleted componenets listed above. The two alternatives differ in terms of:

- of the species allocated to a cooperative
- the eligibility criteria for cooperative membership
- mandated bycatch reductions for eligible vessels
- division of the allocation of groundfish and PSC limits between the cooperative and open access pools
- the minimum percentage of eligible vessels that must agree to form a cooperative before a cooperative is allowed to operate;
- excessive share provisions;
- imposition of sideboards.

The differences among the alternatives are summarized in Table 1. The table does not include components that both alternatives have in common—these are listed as bulleted items beginning on page 1.

Table 1. Summary of Possible Alternatives in the EA/RIR/IRFA for Amendment 80.b.

Issue	Alternative 2	Alternative 3
Groundfish species allocated to the Non-AFA Trawl Catcher Processor Sector	Pacific cod, yellowfin sole, rock sole, flathead sole, Atka mackerel, Greenland turbot, AI Pacific Ocean perch. Species may be added or deleted by a FMP amendment.All groundfish species for which trawling is allowed except pollock allocated under AFA.	Other species may be excluded to prevent allocations that are so small that they preclude persons from harvesting their allocation of species that are typically taken in directed fisheries.
PSC limits for the Non-AFA Trawl Catcher Processor Sector	No change from status quo	The PSC limit for halibut is reduced by 5 percent when PSC limits are linked to estimated biomass levels.
Definition of the Non-AFA Trawl Catcher Processor Sector (this component defines the eligibility criteria for cooperative membership)	Non-AFA vessels that meet the AFA requirements for ownership of a US fishing vessel as implemented in MarAd and USCG regulations (including vessels that were exempted under MarAd regulations) and caught with trawl gear and processed 1000 mt of groundfish between 1998-2002.	Non-AFA vessels that meet the AFA requirements for ownership of a US fishing vessel as implemented in MarAd and USCG regulations (including vessels that were exempted under MarAd regulations) and caught with trawl gear and processed 1000 mt of groundfish between 1997-2002.

Issue	Alternative 2	Alternative 3
Minimum percentage of eligible non-AFA trawl catcher processors that must join a cooperative before a cooperative is allowed to operate.	A minimum of 51 percent. A cooperative must annually submit an application with a membership list to NOAA Fisheries prior to December 1.	A minimum of 90 percent. A cooperative must annually submit an application with a membership list to NOAA Fisheries prior to December 1.
Division of the allocation to the Non-AFA Trawl Catcher Processor Sector between the cooperative and open access pools	The historical catch of specified groundfish of each vessel eligible to join a cooperative is determined based on retained catch from 2000-2002, but each vessel drops its lowest annual catch during this period. The aggregate histories are applied to whichever pool vessels choose. The allocations of PSC limits and specified groundfish are proportional to the aggregate histories in each pool.	The historical catch of specified groundfish of each vessel eligible to join a cooperative is determined based on total catch from 1998-2002. The aggregate histories are applied to whichever pool vessels choose. The allocations of PSC limits and specified groundfish are proportional to the aggregate histories in each pool.
Restrictions on consolidation in the non-AFA trawl catcher processor sector	No excessive share limits.	No single individual, corporation or other entity may harvest, through a fishery cooperative or otherwise, more than a fixed percentage of the sector allocation. A grandfather provision will be included for companies that exceed the excessive share limit.
Measures to mitigate negative impacts of a cooperative on other fisheries	A cooperative is required to prohibit members in the aggregate from exceeding their maximum percent of harvests in other target fisheries. Sideboards are not established by regulation.	Sideboards for cooperative members are established by regulation using the same years used to calculate the apportionment of PSC limits and groundfish between the cooperative and open access pools until such time as other fisheries are rationalized, when the allocations approved in the applicable rationalization program will be used.

Sector Allocations Calculated using TAC as Denominator

Prepared for the October 2003 Council Meeting

The Council added the option of calculating BSAI sector allocations by dividing each sector's annual historic retained catch by the TAC and averaging those percentages for the years selected at their June meeting. Options that base quota allocations on retained catch have been included in other Council amendment packages. Those options have typically been included so that persons would not be given catch history credit for fish they discarded. Members of the IRIU Committee have reviewed that alternative and recommended that the Council drop retained catch over TAC as an option. The committee also recommended that if the Council keeps the option of retained catch over TAC, they should also add an option that would calculate each sector's allocation by dividing total catch over TAC. This paper discusses the issues associated with using catch over TAC to calculate sector allocations, many of which were discussed during the August IRIU Committee meeting, as well as providing tables that show preliminary estimates of the allocations to each sector using this method.

Three primary areas of concern were discussed by the IRIU Committee relative to this allocation method. The first issue related to what happens to the portion of the TAC that is not allocated to sectors. The second is the impact that this method could have on the 2 million metric ton harvest limit set by the Council for the BSAI. Finally, the third is the squid-box issues that can arise whenever retained catch is used to determine sector allocations.

Addressing the Portion of the TAC not Initially Assigned

There are at least three potential alternatives for assigning portions of the TAC that are not initially allocated to sectors. The first option would not assign that portion of the TAC to any fishing group, and results in a decrease in the amount of fish that can be harvested. A second option would assign that TAC to an open access fishery. The third option would redistribute that portion of the TAC to the groundfish sectors receiving allocations based on a formula that would need to be determined.

Under the first method of accounting for unassigned TAC described above, portions of the TAC would not be assigned to any harvest sector. Depending on the years used in the allocation formula and species selected for allocation, the quantity of unassigned TAC could be substantial. For example, if the Council selected the alternative that would allocated all species based on the years 1995-2002 (see Table 2), more that 65 percent of the TAC would be assigned to sectors in the Atka Mackerel, Pacific cod, and Pacific Ocean perch fisheries[1]. All of the remaining fisheries would be reduced by a minimum of 35 percent. Some fisheries, like Alaska plaice, would have less than 15 percent of the TAC assigned to sectors. Other important fisheries like rock sole (30 percent), yellowfin sole (60 percent), flathead sole (33 percent), and Greenland turbot (62 percent) would have limited amounts of their TAC allocated to sectors. Decreasing the TAC by that magnitude will likely have a substantial impact on participants in those fisheries.

The second method would assign the unallocated portion of the TAC to an open access fishery. If the objective of this amendment is to rationalize the BSAI groundfish fisheries, this option would work contrary to that goal. Persons that hold licenses that are not assigned to vessels participating in a sector allocated

[1]Recall that pollock is excluded from this allocation discussion since it has been allocated under the AFA.

harvest rights, could then use those licenses on vessels that fish in the open access fishery. Whether the mix of fish assigned to an open access fishery would support a substantial number of vessels is dependent on markets for products produced from those species and the costs of harvesting the fish. However, given arguments made in the past by members of the yellowfin sole fishery that once a given level of products reach the market their prices drop to levels that do not allow them to be profitable, it is likely that they would want to discourage options that would allow new participants in that fishery. Other flatfish and rockfish species may also have limited markets for their products which could be impacted by encouraging entry into an open access fishery comprised of people that did not qualify for a sector. Also, in some cases the open access fishery would be assigned almost as much or more than the sectors that has been historically dependent on that species.

On the other hand, an open access fishery could provide an opportunity for those people that hold a groundfish license, but do not qualify for a sector to continue fishing. Whether the species assigned to the open access afford much of an opportunity for a vessel to be profitable might be questioned. Therefore, the policy makers will need to weigh the benefits of creating this opportunity versus the costs imposed on other sectors of the fleet and the fishery managers that must oversee this fishery.

The final option would assign the unallocated TAC to sectors receiving an initial allocation. The entire TAC would be allocated and no open access fishery is created under this option. Only members of the sectors defined by the Council would be allowed to harvest BSAI groundfish. Groundfish license holders that do not qualify for a sector would no longer be eligible to participate in BSAI groundfish fisheries. There are different ways to allocate the remaining TAC. That portion of the TAC could be assigned in proportion to the sector's allocation using retained (or total) catch over TAC. Alternatively, sectors could be given equal portions of the remaining TAC. This method may assign fish to a sector that would be unable to use the allocation. For example, it is doubtful that the Jig sector could harvest 6.5 percent of the rock sole fishery (based on Table 2). Other allocation methods could also be devised. If the Council moves forward with this option, they will need to construct the alternatives they wish to see analyzed.

Impacts of the Two Million Metric Ton Cap

Using retained catch over TAC to calculate sector allocations may alter the species distribution due to the two million metric ton cap placed on BSAI harvests. Changes to the sector allocations would be greatest when the full TAC is not assigned to the sectors, either by not allocating the unassigned portion of the TAC or by assigning it to an open access fishery. The impact is likely going to be most pronounced in years when the pollock and Pacific cod biomass is relatively large. In that instance, the TAC for some species could be reduced to permit larger pollock and Pacific cod TACs to be set, or the pollock and Pacific cod TACs could be constrained to allow other species TACs to be maintained. Sectors that rely on flatfish and rockfish species are concerned about these potential trade-offs since their allocations would already be reduced by allocating only the amount of catch that was historically retained relative to the TAC. The sectors that rely primarily on pollock and Pacific cod would be concerned about limiting the size of those species TACs, because they are certain those species would be harvested. Their view is that not allocating the maximum amount of those species that is biologically appropriate would result in "fish being left on the table". These debates will likely make the December TAC setting process more contentious as sectors will try to maximize the TAC levels of the species on which they are most dependent.

Bycatch Allocations Too Small to Harvest Target Species (Squid-Box)

In some cases, the amount of a species allocated to a sector, using retained catch as the numerator, is too small to provide for the bycatch needs in their target fisheries. Historically, many bycatch species were

discarded while the target species was retained. These bycatch species were discarded primarily due market limitations or the cost of retaining them simply outweighed the benefits derived from keeping them. Regulatory discards may have also occurred and exacerbated the problem. This is true for all sectors. Therefore, basing the allocation on retained catch could have negative impacts on both longline and trawl fisheries since it changes the allocation distributions from those that traditionally occurred in the fisheries.

Basing the allocation on retained catch would result in sectors receiving small allocations of bycatch species they retained limited amounts in the past. These small allocations would have the greatest impact if the fisheries are managed using hard caps[2]. Under a management system that uses hard caps, the amount of bycatch species allocated to the sector probably would not allow the members to harvest their entire suite of target fisheries, given historic bycatch rates. If the allocations are managed as soft caps, using incidental catch allowances (ICAs)[3], this problem is reduced. Target fisheries will not be closed because a sector's harvest of bycatch species exceeds its allocation. Given that bycatch needs are met by the ICA, allocating species to sectors is not necessary unless they wish to target that species.

Sector Allocation Estimates

The tables in this section report each sector's percentage of the catch when the TAC is used as the denominator. The information reported is averages of annual percentages calculated by dividing retained catch by the TAC for each year in the qualifying period. The percentages have not been inflated/deflated to equal 100. Adjustments to each sector's percentages were not made so the reader could see the actual percentage of the TAC that would be allocated with no adjustments. If the Council wishes to adjust the allocations so that the entire TAC is allocated to those sectors (or so that the TAC is not exceeded), a method for making that adjustment must be specified.

Retained catch is always less than total catch when any discards were reported because the sum of the sector's percentages have not been adjusted to equal 100. Tables provided in June showed that when retained catch over total catch percentages are adjusted to equal 100 percent, some sector's allocations are greater when retained catch is used as the numerator. That result occurs because a sector retained a greater percentage of a species relative to other sectors.

Allocation percentages reported for Alaska plaice and other flatfish are always equal in these tables. Alaska plaice was not broken out from the other flatfish TAC until 2002. Therefore, for these calculations, Alaska plaice and other flatfish have been combined for all years, and the resulting percentage has been applied to both species groups.

Bullets regarding TAC groupings and changes in TAC groupings that have been made over the years being considered are reported below. These bullets are provide so the reader can better understand the TAC groupings used during the time periods under consideration.

- Alaska plaice was included in the Other Flatfish group until 2002, and had its own TAC set in 2002.
- Starry flounder and Rex sole comprise 89% of catch in the current other flatfish group (BSAI 2002

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[2]The term hard caps in this case means that once a sector's allocation of a species is harvested, they must stop fishing in any fishery where that species would be taken as bycatch.

[3]Given the options currently before the Council it is likely that the caps will be managed using ICAs.

SAFE). Other species in the other flatfish complex include Dover sole, longlead dab, Sakhalin sole, butter sole, and English sole.

- Atka Mackerel TAC was for the BSAI in 1995 and the AI only for 1996-2002
- Pacific cod over the years being considered have been allocated among the following sectors:
  1995-1996 trawl, fixed gear, and jig sectors.
  1997-2000 trawl cp, trawl cv, fixed gear, and jig sectors.
  2001-2002 trawl cp, trawl cv, HAL cp, HAL cv, and jig sectors.
- Sharpchin/Northern rockfish complex is defined for the AI. Northern rockfish was separated from the complex and assigned its own TAC in 2002. The sharpchin TAC was moved into the other rockfish complex.
- Shortraker/Rougheye in the AI included all gear types in 1995-1997, from 1998-2002 separate allocations were made to fixed (30%) and trawl (70%) gear. A TAC was set for the BS only in 2001-2002 (99mt each year).
- The Other Rockfish complex primarily consists of thornyheads.

It should also be noted that alternatives that would drop a person's worst year are not included in these tables, because it is not possible to adjust the TAC to reflect that option.

Table 1: Projected Allocations Based on the Average of Annual Catch over TAC, 1995-1997

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	3.70%	0.43%	0.00%	0.00%	0.00%	16.13%	0.09%	0.00%	0.00%	5.36%	25.73%
	Total Tons	12.04%	2.55%	0.00%	0.09%	0.00%	47.85%	0.77%	0.00%	0.01%	9.63%	72.93%
ARTH	Retained Tons	0.15%	0.08%	0.00%	2.04%	0.00%	5.17%	0.22%	0.00%	0.00%	1.07%	8.73%
	Total Tons	3.94%	4.27%	0.00%	20.50%	2.32%	52.34%	1.38%	0.01%	0.12%	18.37%	103.26%
ATKA-BSAI	Retained Tons	3.76%	9.56%	0.00%	0.00%	0.00%	71.30%	0.00%	0.00%	0.00%	0.02%	84.64%
	Total Tons	4.14%	9.95%	0.01%	0.05%	0.00%	85.08%	0.00%	0.00%	0.07%	0.21%	99.51%
FSOL	Retained Tons	1.48%	0.87%	0.00%	0.06%	0.00%	27.63%	0.14%	0.00%	0.00%	1.13%	31.31%
	Total Tons	5.65%	3.16%	0.00%	0.99%	0.00%	40.51%	1.04%	0.00%	0.01%	8.84%	60.20%
OFLT	Retained Tons	3.70%	0.43%	0.00%	0.00%	0.00%	16.13%	0.09%	0.00%	0.00%	5.36%	25.73%
	Total Tons	12.04%	2.55%	0.00%	0.09%	0.00%	47.85%	0.77%	0.00%	0.01%	9.63%	72.93%
ORCK	Retained Tons	0.51%	0.25%	1.19%	8.81%	7.08%	6.75%	0.00%	0.01%	0.16%	0.90%	25.67%
	Total Tons	3.91%	1.13%	1.19%	12.65%	8.79%	15.25%	0.31%	0.06%	0.42%	2.86%	46.57%
OTHER GF	Retained Tons	0.85%	0.16%	0.00%	7.50%	0.00%	0.40%	0.05%	0.11%	0.09%	1.96%	11.12%
	Total Tons	6.63%	3.51%	0.00%	50.08%	1.06%	31.35%	1.16%	0.42%	2.04%	12.41%	108.66%
PCOD	Retained Tons	2.47%	2.70%	0.13%	39.14%	0.11%	7.96%	0.63%	2.07%	7.10%	19.78%	82.09%
	Total Tons	4.27%	3.81%	0.13%	40.54%	0.32%	12.28%	1.15%	2.10%	7.17%	22.16%	93.92%
POP-AI	Retained Tons	1.56%	0.13%	0.00%	0.00%	0.00%	80.78%	0.03%	0.00%	0.00%	0.12%	82.62%
	Total Tons	2.12%	1.61%	0.00%	0.00%	0.00%	96.93%	0.04%	0.00%	0.00%	0.21%	100.92%
POP-EBS	Retained Tons	0.22%	0.03%	0.00%	0.00%	0.00%	67.89%	0.00%	0.00%	0.00%	7.72%	75.86%
	Total Tons	0.85%	0.91%	0.00%	0.34%	0.00%	74.66%	1.55%	0.01%	0.02%	14.40%	92.74%
RSOL	Retained Tons	2.31%	0.85%	0.00%	0.01%	0.00%	29.51%	0.14%	0.00%	0.00%	1.62%	34.44%
	Total Tons	6.24%	2.83%	0.00%	0.08%	0.00%	62.07%	0.72%	0.00%	0.01%	12.05%	84.00%
SABL	Retained Tons	0.06%	0.02%	0.00%	24.92%	25.46%	5.69%	0.07%	0.00%	0.17%	1.20%	57.59%
	Total Tons	0.06%	0.03%	0.00%	30.26%	26.23%	6.43%	0.07%	0.00%	0.20%	1.44%	64.72%
SCNO	Retained Tons	0.02%	0.56%	0.00%	0.01%	0.00%	27.19%	0.00%	0.00%	0.00%	0.02%	27.81%
	Total Tons	3.72%	5.25%	0.00%	0.40%	0.00%	86.99%	0.00%	0.00%	0.02%	0.64%	97.02%
SRRE	Retained Tons	1.59%	0.08%	0.00%	6.97%	1.64%	62.79%	0.00%	0.00%	0.00%	0.09%	73.18%
	Total Tons	3.29%	0.42%	0.00%	14.30%	4.54%	75.77%	0.03%	0.00%	0.00%	0.26%	98.62%
TURB	Retained Tons	0.52%	0.16%	0.00%	40.21%	3.23%	21.12%	0.17%	0.00%	0.00%	3.72%	69.13%
	Total Tons	0.99%	0.40%	0.00%	48.37%	14.85%	24.99%	0.48%	0.00%	0.01%	4.97%	95.07%
YSOL	Retained Tons	16.52%	2.66%	0.00%	0.00%	0.00%	38.69%	0.84%	0.00%	0.00%	6.83%	65.54%
	Total Tons	20.19%	3.67%	0.00%	0.09%	0.00%	49.95%	0.94%	0.02%	0.05%	7.42%	82.33%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

Table 2: Projected Allocations Based on the Average of Annual Catch over TAC, 1995-2002

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	1.97%	0.16%	0.00%	0.01%	0.00%	8.07%	0.03%	0.00%	0.00%	2.38%	12.63%
	Total Tons	5.60%	0.97%	0.00%	0.23%	0.00%	42.38%	0.29%	0.00%	0.00%	4.26%	53.74%
ARTH	Retained Tons	0.35%	0.04%	0.00%	1.18%	0.00%	11.19%	0.08%	0.00%	0.00%	0.86%	13.72%
	Total Tons	2.60%	1.93%	0.00%	11.91%	1.44%	47.45%	0.52%	0.02%	0.23%	8.93%	75.03%
ATKA-BSAI	Retained Tons	1.53%	5.27%	0.00%	0.03%	0.00%	72.75%	0.00%	0.00%	0.00%	0.06%	79.64%
	Total Tons	1.68%	5.43%	0.00%	0.15%	0.00%	83.15%	0.00%	0.00%	0.05%	0.24%	90.69%
FSOL	Retained Tons	1.40%	0.33%	0.00%	0.05%	0.00%	29.69%	0.05%	0.00%	0.00%	1.16%	32.69%
	Total Tons	3.95%	1.24%	0.00%	0.85%	0.00%	38.92%	0.39%	0.00%	0.00%	5.11%	50.46%
OFLT	Retained Tons	1.97%	0.16%	0.00%	0.01%	0.00%	8.07%	0.03%	0.00%	0.00%	2.38%	12.63%
	Total Tons	5.60%	0.97%	0.00%	0.23%	0.00%	42.38%	0.29%	0.00%	0.00%	4.26%	53.74%
ORCK	Retained Tons	0.36%	0.10%	0.68%	10.36%	7.02%	21.31%	0.00%	0.00%	0.06%	0.48%	40.36%
	Total Tons	2.06%	1.14%	0.68%	17.47%	9.88%	38.01%	0.12%	0.03%	0.43%	2.26%	72.07%
OTHER GF	Retained Tons	0.89%	0.06%	0.00%	7.26%	0.00%	1.74%	0.02%	0.07%	0.07%	1.84%	11.96%
	Total Tons	4.63%	1.49%	0.00%	49.96%	0.89%	34.42%	0.43%	0.36%	2.01%	8.97%	103.16%
PCOD	Retained Tons	2.74%	1.46%	0.10%	45.29%	0.18%	12.29%	0.23%	1.82%	7.27%	19.90%	91.30%
	Total Tons	3.46%	1.89%	0.10%	46.50%	0.29%	14.22%	0.43%	1.84%	7.32%	20.92%	96.98%
POP-AI	Retained Tons	0.60%	0.05%	0.00%	0.00%	0.00%	76.56%	0.01%	0.00%	0.00%	0.05%	77.26%
	Total Tons	0.87%	0.64%	0.00%	0.02%	0.00%	88.99%	0.02%	0.00%	0.00%	0.11%	90.65%
POP-EBS	Retained Tons	2.41%	0.01%	0.00%	0.01%	0.00%	33.39%	0.00%	0.00%	0.00%	10.01%	45.84%
	Total Tons	7.13%	0.42%	0.00%	0.17%	0.00%	39.32%	0.58%	0.00%	0.01%	14.84%	62.48%
RSOL	Retained Tons	1.64%	0.32%	0.00%	0.00%	0.00%	26.37%	0.05%	0.00%	0.00%	0.88%	29.26%
	Total Tons	3.98%	1.11%	0.00%	0.06%	0.00%	51.74%	0.27%	0.00%	0.00%	6.60%	63.75%
SABL	Retained Tons	0.03%	0.01%	0.01%	19.31%	21.90%	7.21%	0.03%	0.01%	2.06%	0.63%	51.20%
	Total Tons	0.04%	0.01%	0.01%	23.43%	22.58%	8.27%	0.03%	0.01%	2.10%	0.76%	57.25%
SCNO	Retained Tons	0.10%	0.21%	0.00%	0.02%	0.00%	14.47%	0.00%	0.00%	0.00%	0.02%	14.84%
	Total Tons	1.94%	3.58%	0.00%	0.99%	0.01%	91.74%	0.00%	0.00%	0.01%	0.81%	99.09%
SRRE	Retained Tons	1.05%	0.03%	0.00%	7.76%	0.89%	48.04%	0.00%	0.00%	0.00%	0.05%	57.83%
	Total Tons	1.87%	0.22%	0.00%	20.88%	4.48%	57.17%	0.01%	0.02%	0.03%	0.14%	84.83%
TURB	Retained Tons	0.30%	0.06%	0.00%	40.52%	2.40%	17.04%	0.06%	0.00%	0.02%	1.47%	61.88%
	Total Tons	0.65%	0.17%	0.00%	45.07%	8.08%	21.06%	0.18%	0.00%	0.22%	2.04%	77.48%
YSOL	Retained Tons	9.81%	1.00%	0.00%	0.01%	0.00%	45.85%	0.31%	0.00%	0.00%	2.91%	59.89%
	Total Tons	11.57%	1.40%	0.00%	0.27%	0.00%	56.22%	0.35%	0.03%	0.03%	3.26%	73.13%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

Table 3: Projected Allocations Based on the Average of Annual Catch over TAC, 1995-2002 excluding 2000

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	2.17%	0.19%	0.00%	0.01%	0.00%	8.80%	0.04%	0.00%	0.00%	2.64%	13.85%
	Total Tons	6.24%	1.11%	0.00%	0.24%	0.00%	45.45%	0.33%	0.00%	0.00%	4.76%	58.13%
ARTH	Retained Tons	0.39%	0.05%	0.00%	1.34%	0.00%	12.21%	0.09%	0.00%	0.00%	0.94%	15.02%
	Total Tons	2.93%	2.20%	0.00%	13.40%	1.63%	52.94%	0.59%	0.02%	0.26%	10.13%	84.09%
ATKA-BSAI	Retained Tons	1.75%	6.03%	0.00%	0.03%	0.00%	74.46%	0.00%	0.00%	0.00%	0.07%	82.33%
	Total Tons	1.92%	6.20%	0.00%	0.14%	0.00%	85.80%	0.00%	0.00%	0.06%	0.28%	94.39%
FSOL	Retained Tons	1.48%	0.38%	0.00%	0.05%	0.00%	29.60%	0.06%	0.00%	0.00%	1.09%	32.65%
	Total Tons	4.16%	1.42%	0.00%	0.88%	0.00%	39.09%	0.45%	0.00%	0.01%	5.30%	51.30%
OFLT	Retained Tons	2.17%	0.19%	0.00%	0.01%	0.00%	8.80%	0.04%	0.00%	0.00%	2.64%	13.85%
	Total Tons	6.24%	1.11%	0.00%	0.24%	0.00%	45.45%	0.33%	0.00%	0.00%	4.76%	58.13%
ORCK	Retained Tons	0.34%	0.11%	0.75%	10.07%	7.18%	19.01%	0.00%	0.01%	0.07%	0.53%	38.06%
	Total Tons	2.12%	1.30%	0.75%	16.74%	10.20%	35.69%	0.13%	0.03%	0.36%	2.39%	69.72%
OTHER GF	Retained Tons	0.94%	0.07%	0.00%	7.32%	0.00%	1.63%	0.02%	0.08%	0.08%	2.03%	12.17%
	Total Tons	4.77%	1.70%	0.00%	50.86%	0.89%	34.30%	0.50%	0.38%	1.89%	9.54%	104.82%
PCOD	Retained Tons	2.85%	1.67%	0.10%	45.24%	0.14%	11.83%	0.27%	1.87%	7.02%	19.44%	90.44%
	Total Tons	3.67%	2.16%	0.11%	46.42%	0.25%	13.99%	0.49%	1.89%	7.07%	20.58%	96.63%
POP-AI	Retained Tons	0.68%	0.05%	0.00%	0.00%	0.00%	77.64%	0.01%	0.00%	0.00%	0.06%	78.45%
	Total Tons	1.00%	0.74%	0.00%	0.01%	0.00%	90.95%	0.02%	0.00%	0.00%	0.12%	92.83%
POP-EBS	Retained Tons	2.68%	0.01%	0.00%	0.01%	0.00%	36.82%	0.00%	0.00%	0.00%	11.36%	50.90%
	Total Tons	7.84%	0.48%	0.00%	0.19%	0.00%	42.48%	0.66%	0.00%	0.01%	16.82%	68.49%
RSOL	Retained Tons	1.70%	0.37%	0.00%	0.00%	0.00%	27.59%	0.06%	0.00%	0.00%	0.95%	30.66%
	Total Tons	4.18%	1.27%	0.00%	0.06%	0.00%	53.64%	0.31%	0.00%	0.00%	7.25%	66.71%
SABL	Retained Tons	0.03%	0.01%	0.01%	19.44%	22.71%	7.11%	0.03%	0.02%	1.91%	0.71%	51.98%
	Total Tons	0.04%	0.01%	0.01%	23.71%	23.46%	8.07%	0.03%	0.02%	1.95%	0.86%	58.17%
SCNO	Retained Tons	0.12%	0.24%	0.00%	0.02%	0.00%	15.70%	0.00%	0.00%	0.00%	0.02%	16.11%
	Total Tons	2.13%	4.09%	0.00%	0.93%	0.01%	90.82%	0.00%	0.00%	0.02%	0.76%	98.75%
SRRE	Retained Tons	1.12%	0.03%	0.00%	7.53%	0.97%	50.15%	0.00%	0.00%	0.00%	0.05%	59.87%
	Total Tons	1.97%	0.25%	0.00%	20.00%	3.96%	60.20%	0.01%	0.03%	0.03%	0.16%	86.60%
TURB	Retained Tons	0.33%	0.07%	0.00%	39.42%	2.59%	16.80%	0.07%	0.00%	0.02%	1.67%	60.96%
	Total Tons	0.69%	0.20%	0.00%	44.13%	8.78%	21.00%	0.21%	0.00%	0.23%	2.29%	77.53%
YSOL	Retained Tons	10.13%	1.14%	0.00%	0.01%	0.00%	44.19%	0.36%	0.00%	0.00%	3.08%	58.91%
	Total Tons	12.05%	1.60%	0.00%	0.27%	0.00%	54.32%	0.40%	0.02%	0.04%	3.44%	72.15%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

Table 4: Projected Allocations Based on the Average of Annual Catch over TAC, 1998-2002

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	0.92%	0.00%	0.00%	0.01%	0.00%	3.23%	0.00%	0.00%	0.00%	0.60%	4.77%
	Total Tons	1.74%	0.02%	0.00%	0.32%	0.00%	39.10%	0.00%	0.00%	0.00%	1.04%	42.22%
ARTH	Retained Tons	0.48%	0.02%	0.00%	0.66%	0.00%	14.81%	0.00%	0.00%	0.00%	0.74%	16.71%
	Total Tons	1.80%	0.52%	0.00%	6.75%	0.92%	44.52%	0.00%	0.02%	0.29%	3.28%	58.09%
ATKA-BSAI	Retained Tons	0.19%	2.70%	0.00%	0.05%	0.00%	73.62%	0.00%	0.00%	0.00%	0.09%	76.65%
	Total Tons	0.20%	2.71%	0.00%	0.20%	0.00%	81.99%	0.00%	0.00%	0.04%	0.27%	85.41%
FSOL	Retained Tons	1.35%	0.00%	0.00%	0.04%	0.00%	30.93%	0.00%	0.00%	0.00%	1.18%	33.51%
	Total Tons	2.93%	0.09%	0.00%	0.77%	0.00%	37.96%	0.00%	0.00%	0.00%	2.86%	44.62%
OFLT	Retained Tons	0.92%	0.00%	0.00%	0.01%	0.00%	3.23%	0.00%	0.00%	0.00%	0.60%	4.77%
	Total Tons	1.74%	0.02%	0.00%	0.32%	0.00%	39.10%	0.00%	0.00%	0.00%	1.04%	42.22%
ORCK	Retained Tons	0.26%	0.00%	0.37%	11.28%	6.99%	30.04%	0.00%	0.00%	0.01%	0.22%	49.17%
	Total Tons	0.95%	1.15%	0.37%	20.37%	10.53%	51.66%	0.00%	0.02%	0.44%	1.90%	87.38%
OTHER GF	Retained Tons	0.92%	0.00%	0.00%	7.11%	0.01%	2.55%	0.00%	0.05%	0.06%	1.77%	12.47%
	Total Tons	3.43%	0.27%	0.00%	49.89%	0.79%	36.26%	0.00%	0.32%	1.99%	6.91%	99.86%
PCOD	Retained Tons	2.90%	0.72%	0.07%	48.99%	0.23%	14.89%	0.00%	1.68%	7.37%	19.98%	96.82%
	Total Tons	2.98%	0.73%	0.07%	50.08%	0.28%	15.39%	0.00%	1.69%	7.41%	20.18%	98.81%
POP-AI	Retained Tons	0.02%	0.00%	0.00%	0.00%	0.00%	74.02%	0.00%	0.00%	0.00%	0.01%	74.04%
	Total Tons	0.12%	0.07%	0.00%	0.02%	0.00%	84.23%	0.00%	0.00%	0.00%	0.06%	84.50%
POP-EBS	Retained Tons	3.72%	0.00%	0.00%	0.02%	0.00%	12.69%	0.00%	0.00%	0.00%	11.39%	27.82%
	Total Tons	10.90%	0.14%	0.00%	0.07%	0.00%	18.11%	0.00%	0.00%	0.01%	15.10%	44.32%
RSOL	Retained Tons	1.24%	0.00%	0.00%	0.00%	0.00%	24.48%	0.00%	0.00%	0.00%	0.43%	26.16%
	Total Tons	2.62%	0.08%	0.00%	0.05%	0.00%	45.54%	0.00%	0.00%	0.00%	3.32%	51.60%
SABL	Retained Tons	0.02%	0.00%	0.01%	15.94%	19.77%	8.13%	0.00%	0.02%	3.20%	0.29%	47.37%
	Total Tons	0.03%	0.00%	0.01%	19.34%	20.40%	9.37%	0.00%	0.02%	3.24%	0.36%	52.76%
SCNO	Retained Tons	0.15%	0.00%	0.00%	0.03%	0.00%	6.84%	0.00%	0.00%	0.00%	0.02%	7.05%
	Total Tons	0.87%	2.58%	0.00%	1.34%	0.01%	94.59%	0.00%	0.00%	0.01%	0.91%	100.32%
SRRE	Retained Tons	0.73%	0.00%	0.00%	8.23%	0.44%	39.19%	0.00%	0.00%	0.00%	0.02%	48.62%
	Total Tons	1.01%	0.10%	0.00%	24.83%	4.44%	46.02%	0.00%	0.04%	0.05%	0.06%	76.56%
TURB	Retained Tons	0.17%	0.00%	0.01%	40.71%	1.91%	14.60%	0.00%	0.00%	0.03%	0.11%	57.53%
	Total Tons	0.45%	0.04%	0.01%	43.09%	4.02%	18.70%	0.00%	0.00%	0.35%	0.28%	66.94%
YSOL	Retained Tons	5.78%	0.00%	0.00%	0.01%	0.00%	50.14%	0.00%	0.00%	0.00%	0.56%	56.49%
	Total Tons	6.40%	0.04%	0.00%	0.38%	0.00%	59.98%	0.00%	0.03%	0.02%	0.76%	67.62%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

Table 5: Projected Allocations Based on the Average of Annual Catch over TAC, 1998-2002 excluding 2000

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	1.02%	0.00%	0.00%	0.02%	0.00%	3.30%	0.00%	0.00%	0.00%	0.60%	4.94%
	Total Tons	1.88%	0.02%	0.00%	0.35%	0.00%	43.66%	0.00%	0.00%	0.00%	1.10%	47.02%
ARTH	Retained Tons	0.57%	0.03%	0.00%	0.81%	0.00%	17.48%	0.00%	0.00%	0.00%	0.84%	19.74%
	Total Tons	2.17%	0.65%	0.00%	8.07%	1.11%	53.38%	0.00%	0.02%	0.36%	3.94%	69.71%
ATKA-BSAI	Retained Tons	0.23%	3.38%	0.00%	0.06%	0.00%	76.83%	0.00%	0.00%	0.00%	0.11%	80.61%
	Total Tons	0.25%	3.39%	0.00%	0.20%	0.00%	86.34%	0.00%	0.00%	0.04%	0.33%	90.56%
FSOL	Retained Tons	1.48%	0.00%	0.00%	0.05%	0.00%	31.08%	0.00%	0.00%	0.00%	1.05%	33.66%
	Total Tons	3.04%	0.11%	0.00%	0.80%	0.00%	38.02%	0.00%	0.00%	0.00%	2.64%	44.61%
OFLT	Retained Tons	1.02%	0.00%	0.00%	0.02%	0.00%	3.30%	0.00%	0.00%	0.00%	0.60%	4.94%
	Total Tons	1.88%	0.02%	0.00%	0.35%	0.00%	43.66%	0.00%	0.00%	0.00%	1.10%	47.02%
ORCK	Retained Tons	0.22%	0.00%	0.42%	11.01%	7.25%	28.19%	0.00%	0.00%	0.01%	0.26%	47.36%
	Total Tons	0.78%	1.43%	0.42%	19.81%	11.25%	51.02%	0.00%	0.02%	0.31%	2.03%	87.08%
OTHER GF	Retained Tons	1.01%	0.00%	0.00%	7.18%	0.00%	2.55%	0.00%	0.06%	0.07%	2.08%	12.95%
	Total Tons	3.37%	0.34%	0.00%	51.45%	0.76%	36.51%	0.00%	0.34%	1.77%	7.39%	101.94%
PCOD	Retained Tons	3.12%	0.90%	0.08%	49.81%	0.16%	14.73%	0.00%	1.73%	6.96%	19.20%	96.69%
	Total Tons	3.22%	0.92%	0.08%	50.83%	0.20%	15.27%	0.00%	1.74%	6.99%	19.40%	98.67%
POP-AI	Retained Tons	0.02%	0.00%	0.00%	0.00%	0.00%	75.29%	0.00%	0.00%	0.00%	0.01%	75.32%
	Total Tons	0.15%	0.08%	0.00%	0.01%	0.00%	86.47%	0.00%	0.00%	0.00%	0.06%	86.77%
POP-EBS	Retained Tons	4.53%	0.00%	0.00%	0.02%	0.00%	13.53%	0.00%	0.00%	0.00%	14.10%	32.18%
	Total Tons	13.08%	0.17%	0.00%	0.07%	0.00%	18.35%	0.00%	0.00%	0.01%	18.63%	50.31%
RSOL	Retained Tons	1.24%	0.00%	0.00%	0.00%	0.00%	26.14%	0.00%	0.00%	0.00%	0.45%	27.83%
	Total Tons	2.63%	0.10%	0.00%	0.05%	0.00%	47.32%	0.00%	0.00%	0.00%	3.64%	53.75%
SABL	Retained Tons	0.01%	0.00%	0.02%	15.33%	20.64%	8.17%	0.00%	0.03%	3.22%	0.35%	47.77%
	Total Tons	0.03%	0.00%	0.02%	18.79%	21.38%	9.30%	0.00%	0.03%	3.27%	0.43%	53.25%
SCNO	Retained Tons	0.19%	0.00%	0.00%	0.04%	0.00%	7.07%	0.00%	0.00%	0.00%	0.03%	7.33%
	Total Tons	0.93%	3.23%	0.00%	1.32%	0.01%	93.68%	0.00%	0.00%	0.01%	0.85%	100.04%
SRRE	Retained Tons	0.77%	0.00%	0.00%	7.94%	0.47%	40.68%	0.00%	0.00%	0.00%	0.03%	49.89%
	Total Tons	0.97%	0.13%	0.00%	24.28%	3.52%	48.52%	0.00%	0.05%	0.05%	0.08%	77.59%
TURB	Retained Tons	0.18%	0.00%	0.00%	38.83%	2.11%	13.56%	0.00%	0.00%	0.03%	0.12%	54.84%
	Total Tons	0.46%	0.04%	0.00%	40.96%	4.22%	18.02%	0.00%	0.00%	0.40%	0.27%	64.38%
YSOL	Retained Tons	5.34%	0.00%	0.00%	0.01%	0.00%	48.32%	0.00%	0.00%	0.00%	0.27%	53.94%
	Total Tons	5.95%	0.05%	0.00%	0.41%	0.00%	57.59%	0.00%	0.02%	0.03%	0.46%	64.52%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

Table 6: Projected Allocations Based on the Average of Annual Catch over TAC, 2000-2002

Species	Catch	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
AK-PLAICE	Retained Tons	1.25%	0.00%	0.00%	0.02%	0.00%	4.05%	0.00%	0.00%	0.00%	0.53%	5.85%
	Total Tons	1.75%	0.00%	0.00%	0.49%	0.00%	56.49%	0.00%	0.00%	0.01%	1.05%	59.79%
ARTH	Retained Tons	0.49%	0.00%	0.00%	0.70%	0.00%	18.38%	0.00%	0.00%	0.00%	0.83%	20.41%
	Total Tons	0.96%	0.00%	0.00%	5.81%	0.37%	45.59%	0.00%	0.03%	0.47%	3.30%	56.54%
ATKA-BSAI	Retained Tons	0.00%	0.00%	0.00%	0.07%	0.00%	72.85%	0.00%	0.00%	0.00%	0.14%	73.07%
	Total Tons	0.01%	0.00%	0.00%	0.24%	0.00%	81.39%	0.00%	0.00%	0.05%	0.22%	81.91%
FSOL	Retained Tons	1.79%	0.00%	0.00%	0.05%	0.00%	38.80%	0.00%	0.00%	0.00%	1.73%	42.37%
	Total Tons	3.57%	0.00%	0.00%	1.00%	0.00%	47.50%	0.00%	0.00%	0.00%	3.71%	55.78%
OFLT	Retained Tons	1.25%	0.00%	0.00%	0.02%	0.00%	4.05%	0.00%	0.00%	0.00%	0.53%	5.85%
	Total Tons	1.75%	0.00%	0.00%	0.49%	0.00%	56.49%	0.00%	0.00%	0.01%	1.05%	59.79%
ORCK	Retained Tons	0.38%	0.00%	0.45%	10.47%	9.28%	40.02%	0.00%	0.00%	0.01%	0.15%	60.74%
	Total Tons	1.06%	0.00%	0.45%	19.55%	14.57%	59.41%	0.00%	0.02%	0.57%	1.25%	96.88%
OTHER GF	Retained Tons	1.01%	0.00%	0.00%	8.64%	0.01%	3.78%	0.00%	0.06%	0.03%	2.17%	15.70%
	Total Tons	3.33%	0.00%	0.00%	51.20%	0.91%	39.47%	0.00%	0.38%	2.06%	7.24%	104.58%
PCOD	Retained Tons	2.08%	0.00%	0.06%	49.57%	0.33%	15.75%	0.00%	1.58%	7.94%	19.27%	96.58%
	Total Tons	2.12%	0.00%	0.06%	50.65%	0.39%	16.24%	0.00%	1.60%	7.97%	19.49%	98.51%
POP-AI	Retained Tons	0.00%	0.00%	0.00%	0.00%	0.00%	71.88%	0.00%	0.00%	0.00%	0.00%	71.88%
	Total Tons	0.02%	0.00%	0.00%	0.04%	0.00%	82.33%	0.00%	0.00%	0.00%	0.02%	82.41%
POP-EBS	Retained Tons	2.37%	0.00%	0.00%	0.03%	0.00%	9.21%	0.00%	0.00%	0.00%	5.04%	16.65%
	Total Tons	12.64%	0.00%	0.00%	0.10%	0.00%	14.33%	0.00%	0.00%	0.00%	9.31%	36.37%
RSOL	Retained Tons	1.19%	0.00%	0.00%	0.00%	0.00%	31.79%	0.00%	0.00%	0.00%	0.68%	33.66%
	Total Tons	2.44%	0.00%	0.00%	0.05%	0.00%	54.20%	0.00%	0.00%	0.00%	2.89%	59.58%
SABL	Retained Tons	0.03%	0.00%	0.00%	13.66%	21.27%	8.41%	0.00%	0.00%	5.06%	0.33%	48.76%
	Total Tons	0.04%	0.00%	0.00%	16.57%	21.85%	9.53%	0.00%	0.00%	5.09%	0.44%	53.52%
SCNO	Retained Tons	0.06%	0.00%	0.00%	0.03%	0.00%	3.41%	0.00%	0.00%	0.00%	0.03%	3.52%
	Total Tons	0.73%	0.00%	0.00%	1.39%	0.02%	83.64%	0.00%	0.00%	0.01%	0.86%	86.64%
SRRE	Retained Tons	0.85%	0.00%	0.00%	8.09%	0.64%	39.38%	0.00%	0.00%	0.00%	0.02%	48.98%
	Total Tons	1.08%	0.00%	0.00%	23.35%	5.96%	46.60%	0.00%	0.06%	0.08%	0.06%	77.18%
TURB	Retained Tons	0.15%	0.00%	0.01%	36.42%	1.31%	16.13%	0.00%	0.00%	0.03%	0.12%	54.17%
	Total Tons	0.33%	0.00%	0.01%	38.72%	3.98%	20.31%	0.00%	0.00%	0.54%	0.24%	64.13%
YSOL	Retained Tons	4.32%	0.00%	0.00%	0.02%	0.00%	64.47%	0.00%	0.00%	0.00%	0.62%	69.42%
	Total Tons	4.69%	0.00%	0.00%	0.56%	0.00%	75.77%	0.00%	0.03%	0.02%	0.88%	81.96%

Note: Data was based on Blend data provided by the Alaska Fisheries Science Center

PSC Allocations

Three separate PSC allocation alternatives are presented in this package. The first allocates PSC to sectors based on their historic harvest of groundfish in a target fishery. The second method allocates PSC based on the percentage of the groundfish species harvested, regardless of the target fishery the catch was assigned. Finally, the third method allocates PSC based on the amount of PSC harvested. A description of how each calculation was preformed is provided in the following text.

Method 1 (Tables 1-6): PSC allocations based on a sector's historic harvest of groundfish within a target fishery

The catch of all groundfish species was summed by target fishery, sector, and gear (trawl, non-trawl, and both trawl and non-trawl combined). If a PSC complex has more than one groundfish target species, the first step was repeated for each species in the complex. For PSC allocations that are assigned to only one groundfish target, each sector's percentage of the total groundfish target harvested by gear type was calculated. When a PSC complex covers more than one groundfish target fishery, each sector's harvest of groundfish in a target was multiplied by the percentage of the PSC complex allocation used to harvest that target. Those percentages where then summed over all target species in the complex (e.g., rock sole/flathead sole/other flatfish). The resulting percentages can then be multiplied by the current PSC allocations to determine the amount of PSC assigned to a sector.

Method 2 (Tables 7-12): PSC allocations based on a sector's historic harvest of groundfish, regardless of the target fishery

The methods used to calculate the PSC allocation are the same as described in method 1, except that the total groundfish harvests are based on species and not target fisheries. In other words, Method 2 is the amount of Pacific cod harvested in all target fisheries as opposed to the total amount of groundfish harvested in the Pacific cod target fishery (Method 1).

Method 3 (Tables 13-18): PSC allocations based on the amount of PSC harvested.

The amount of each PSC species harvested by sector, gear, and PSC target fishery was summed. Each sector's total, by gear and target fishery, was then divided by the total harvest by all sectors using that gear in that PSC target fishery, to calculate the percentage each sector harvested during the various time periods under consideration.

The PSC allocation results are presented as the percentage of the total allotment each sector would be issued. The actual allocation amounts, based on 2003 PSC allotments, are not presented in this document due to the number of tables that would be created. If the actual amounts were presented, a table for each PSC species would be required. That would increase the number of pages of tables in this document from 18 to 80.

For reference, PSC allotments for the years 1995 through 2003 are included in Tables A through F below.

Table A: BSAI halibut PSC allocations (mt) for the years 1995 - 2003

PSC Species Complex	1995	1996	1997	1998	1999	2000	2001	2002	2003
Trawl Allocations									
YellowfinSole	750	820	930	1,005	1,005	958	911	886	886
Rocksole/Other Flatfish[1]	690	730	795	795	795	842	854	779	779
Turbot/sablefish/arrowtooth	120								
Rockfish	110	110	100	75	75	75	69	69	69
Pacific	1,550	1,685	1,600	1,550	1,550	1,550	1,334	1,434	1,434
Pollock/Atak Mackerel/O.Species	555	430	350	350	250	250	232	232	232
Pelagic Trawl Pollock									
Trawl	3,775	3,775	3,775	3,775	3,675	3,675	3,400	3,400	3,400
Non-Trawl									
Pacific cod	725	800	840	810	810	810	755	775	775
Other	175	100	60	90	90	90	78	58	58
Non-Trawl Total	900	900	900	900	900	900	833	833	833
Total	4,675	4,675	4,675	4,675	4,575	4,575	4,233	4,233	4,233

1/Includes Flathead Sole after 2000

Table B: BSAI herring PSC allocations (mt) for the years 1995-2003

Species Group	1995	1996	1997	1998	1999	2000	2001	2002	2003
Trawl									
Yellowfin Sole	315	287	267	268	254	169	139	139	139
Rocksole/Other Flatfish				22	22	24	20	20	20
Turbot/sablefish/arrowtooth					10	11	9	9	9
Rockfish	8	7	7	8	8	9	7	7	7
Pacific cod	24	22	20	22	22	24	20	20	20
Pollock/Atak Mackerel/O.Species	169	154	143	155	152	1616	146	146	146
Pelagic Trawl Pollock	1346	1227	1142	1239	1217		1184	1184	1,184
Trawl Total	1,862	1,697	1,579	1,714	1,685	1,853	1,525	1,525	1,525

Table C: BSAI red king crab PSC allocations (# of Animals) for the years 1995-2003.

Species Group	1995	1996	1997	1998	1999	2000	2001	2002	2003
					Trawl				
YellowfinSole	50,000	50,000	10,000	10,000	21,084	12,600	11,664	16,664	16,664
Rocksole/OtherFlatfish	110,000	110,000	75,000	75,000	158,133	70,005	64,782	59,782	59,782
Turbot/sablefish/arrowtooth									
Rockfish									
Pacific cod	10,000	10,000	7,500	7,500	15,813	12,600	11,664	11,664	13,079
Pollock/Atak Mackerel/O.Species	30,000	30,000	7,500	7,500	1,970	1,795	1,615	1,615	200
Pelagic Trawl Pollock									
Trawl Total		200,000	100,000	100,000	197,000	197,000	89,725	89,725	89,725

Table D: BSAI C. bairdi (Zone 1) allocations (# of Animals) for the years 1995-2003

Species Group	1995	1996	1997	1998	1999	2000	2001	2002	2003
					Trawl				
Yellowfin Sole	225,000	250,000	276,316	276,316	274,526	312,163	253,894	340,844	340,844
Rocksole/Other Flatfish	475,000	425,000	296,052	296,052	294,134	334,407	272,126	365,320	365,320
Turbot/sablefish/arrowtooth									
Rockfish									
Pacific cod	225,000	250,000	133,224	148,224	147,263	167,411	136,400	183,112	183,112
Pollock/Atak Mackerel/O.Species	75,000	75,000	44,408	29,408	14,077	16,019	12,830	17,224	17,224
Pelagic Trawl Pollock									
Trawl Total	1,000,000	1,000,000	750,000	750,000	730,000	830,000	675,250	906,500	906,500

Table E: BSAI C. bairdi (Zone 2) allocations (# of Animals) for the years 1995-2003

Species Group	1995	1996	1997	1998	1999	2000	2001	2002	2003
					Trawl				
Yellowfin Sole		1,530,000	1,071,000	1,071,000	1,198,906	1,637,448	1,246,502	1,788,459	1,788,459
Rocksole/Other Flatfish	510,000	510,000	357,000	357,000	399,635	545,832	415,501	596,154	596,154
Turbot/sablefish/arrowtooth	5,000								
Rockfish	10,000	10,000	7,000	7,000	7,836	10,884	7,658	10,988	10,988
Pacific cod	260,000	260,000	195,000	195,000	218,288	298,116	225,941	324,176	324,176
Pollock/Atak Mackerel/O.Species	690,000	690,000	470,000	470,000	20,335	27,720	19,148	27,473	27,473
Pelagic Trawl Pollock									
Trawl Total		3,000,000	2,100,000	2,100,000	1,845,000	2,520,000	1,914,750	2,747,250	2,747,250

Table F: BSAI C. opilio allocations (# of Animals) for the years 1995-2003

Species Group	1995-97	1998	1999	2000	2001	2002	2003
				Trawl			
Yellowfin Sole			3,248,821	3,109,815	2,876,981	2,776,981	2,776,981
Rocksole/Other Flatfish			801,080	940,470	469,130	969,130	969,130
Turbot/sablefish/arrowtooth			44,504	44,370	40,238	40,238	40,238
Rockfish			44,504	44,370	40,238	40,237	40,237
Pacific cod			133,513	133,545	524,736	124,736	124,736
Pollock/Atak Mackerel/O.Species			77,578	77,430	72,428	72,428	72,428
Pelagic Trawl Pollock							
Trawl Total	-	4,654,000	4,350,000	4,350,000	4,023,751	4,023,750	4,023,750

Table 1: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1995-1997.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
					Trawl Allocations							
Total Catch	Pacific Cod	7.32%	9.40%	0.00%	0.14%	0.00%	12.74%	1.56%	0.02%	0.00%	68.83%	100%
	Pollock/Atka/other	29.23%	9.81%	0.00%	0.01%	0.00%	18.28%	2.20%	0.00%	0.00%	40.48%	100%
	Rock sole/flat.sole/other flatfish	2.50%	1.77%	0.00%	0.00%	0.00%	94.11%	0.00%	0.00%	0.00%	1.62%	100%
	Rockfish	31.43%	36.71%	0.00%	0.00%	0.00%	14.59%	8.67%	0.00%	0.00%	8.60%	100%
	Turbot/sablefish/arrowtooth	1.97%	0.79%	0.00%	0.00%	0.00%	77.13%	0.95%	0.00%	0.00%	19.15%	100%
	Yellowfin Sole	26.08%	4.58%	0.00%	0.00%	0.00%	59.14%	1.11%	0.00%	0.00%	9.09%	100%
Retained Catch	Pacific Cod	7.71%	9.72%	0.00%	0.15%	0.00%	10.96%	1.61%	0.02%	0.00%	69.82%	100%
	Pollock/Atka/other	29.04%	9.90%	0.00%	0.01%	0.00%	17.87%	2.23%	0.00%	0.00%	40.94%	100%
	Rock sole/flat.sole/other flatfish	1.77%	2.59%	0.00%	0.00%	0.00%	93.50%	0.01%	0.00%	0.00%	2.14%	100%
	Rockfish	31.43%	36.71%	0.00%	0.00%	0.00%	14.59%	8.67%	0.00%	0.00%	8.60%	100%
	Turbot/sablefish/arrowtooth	2.13%	0.84%	0.00%	0.00%	0.00%	76.34%	0.93%	0.00%	0.00%	19.77%	100%
	Yellowfin Sole	26.07%	4.28%	0.00%	0.00%	0.00%	57.70%	1.25%	0.00%	0.00%	10.70%	100%
					Non-Trawl Allocations							
Total Catch	Pacific Cod	0.00%	0.14%	0.00%	99.52%	0.31%	0.00%	0.00%	0.03%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	78.52%	21.48%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.14%	0.00%	99.57%	0.26%	0.00%	0.00%	0.03%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	80.72%	19.28%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
					Combined Trawl and Non-Trawl Allocations							
Total Catch	Pacific Cod	2.61%	3.41%	0.17%	52.17%	0.16%	4.52%	0.55%	2.71%	9.27%	24.43%	100%
	Pollock/Atka/other	29.22%	9.80%	0.00%	0.03%	0.00%	18.27%	2.20%	0.00%	0.01%	40.47%	100%
	Rock sole/flat.sole/other flatfish	2.50%	1.77%	0.00%	0.00%	0.00%	94.11%	0.00%	0.00%	0.00%	1.62%	100%
	Rockfish	1.84%	0.00%	0.08%	0.03%	0.23%	97.82%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.59%	0.24%	0.00%	62.50%	8.06%	22.58%	0.28%	0.00%	0.01%	5.73%	100%
	Yellowfin Sole	26.08%	4.58%	0.00%	0.00%	0.00%	59.14%	1.11%	0.00%	0.00%	9.09%	100%
Retained Catch	Pacific Cod	2.68%	3.43%	0.18%	52.74%	0.14%	3.78%	0.56%	2.80%	9.60%	24.10%	100%
	Total Pollock/Atka/other	29.03%	9.90%	0.00%	0.03%	0.00%	17.87%	2.23%	0.00%	0.01%	40.93%	100%
	Rock sole/flat.sole/other flatfish	1.77%	2.59%	0.00%	0.00%	0.00%	93.50%	0.01%	0.00%	0.00%	2.14%	100%
	Rockfish	1.71%	0.00%	0.09%	0.04%	0.25%	97.91%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.64%	0.25%	0.00%	65.02%	5.59%	22.31%	0.28%	0.00%	0.01%	5.91%	100%
	Yellowfin Sole	26.07%	4.28%	0.00%	0.00%	0.00%	57.70%	1.25%	0.00%	0.00%	10.70%	100%

Table 2: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1995-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	6.98%	5.58%	0.00%	0.06%	0.00%	18.59%	0.72%	0.02%	0.00%	68.04%	100%
	Pollock/Atka/other	27.95%	5.40%	0.00%	0.00%	0.00%	26.00%	0.75%	0.00%	0.00%	39.89%	100%
	Rock sole/flat.sole/other flatfish	1.77%	0.73%	0.00%	0.00%	0.00%	96.80%	0.00%	0.00%	0.00%	0.70%	100%
	Rockfish	32.51%	34.95%	0.00%	0.00%	0.00%	15.09%	6.87%	0.00%	0.00%	10.59%	100%
	Turbot/sablefish/arrowtooth	0.72%	0.29%	0.00%	0.00%	0.00%	91.56%	0.35%	0.00%	0.00%	7.08%	100%
	Yellowfin Sole	19.74%	2.44%	0.00%	0.00%	0.00%	71.93%	0.59%	0.00%	0.00%	5.29%	100%
Retained Catch	Pacific Cod	7.15%	5.62%	0.00%	0.07%	0.00%	17.92%	0.73%	0.02%	0.00%	68.50%	100%
	Pollock/Atka/other	27.91%	5.51%	0.00%	0.00%	0.00%	25.74%	0.75%	0.00%	0.00%	40.09%	100%
	Rock sole/flat.sole/other flatfish	1.41%	1.05%	0.00%	0.00%	0.00%	96.64%	0.00%	0.00%	0.00%	0.90%	100%
	Rockfish	32.51%	34.95%	0.00%	0.00%	0.00%	15.09%	6.87%	0.00%	0.00%	10.59%	100%
	Turbot/sablefish/arrowtooth	0.78%	0.31%	0.00%	0.00%	0.00%	91.23%	0.34%	0.00%	0.00%	7.33%	100%
	Yellowfin Sole	20.04%	2.23%	0.00%	0.00%	0.00%	70.98%	0.65%	0.00%	0.00%	6.09%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.06%	0.00%	99.40%	0.38%	0.01%	0.00%	0.15%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	82.51%	17.49%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.06%	0.00%	99.43%	0.35%	0.01%	0.00%	0.15%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	83.46%	16.54%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	2.36%	1.91%	0.12%	54.95%	0.21%	6.26%	0.24%	2.27%	8.78%	22.89%	100%
	Pollock/Atka/other	27.78%	5.37%	0.00%	0.53%	0.03%	25.87%	0.74%	0.00%	0.03%	39.65%	100%
	Rock sole/flat.sole/other flatfish	1.77%	0.73%	0.00%	0.00%	0.00%	96.80%	0.00%	0.00%	0.00%	0.70%	100%
	Rockfish	0.89%	0.00%	0.04%	0.04%	0.11%	98.90%	0.00%	0.00%	0.00%	0.01%	100%
	Turbot/sablefish/arrowtooth	0.19%	0.07%	0.00%	60.79%	5.17%	31.74%	0.09%	0.00%	0.13%	1.81%	100%
	Yellowfin Sole	19.74%	2.44%	0.00%	0.00%	0.00%	71.93%	0.59%	0.00%	0.00%	5.29%	100%
Retained Catch	Pacific Cod	2.39%	1.91%	0.13%	55.05%	0.20%	5.98%	0.24%	2.31%	8.98%	22.82%	100%
	Total Pollock/Atka/other	27.74%	5.47%	0.00%	0.51%	0.02%	25.62%	0.74%	0.00%	0.04%	39.85%	100%
	Rock sole/flat.sole/other flatfish	1.41%	1.05%	0.00%	0.00%	0.00%	96.64%	0.00%	0.00%	0.00%	0.90%	100%
	Rockfish	0.82%	0.00%	0.05%	0.04%	0.12%	98.96%	0.00%	0.00%	0.00%	0.02%	100%
	Turbot/sablefish/arrowtooth	0.20%	0.08%	0.00%	62.13%	4.17%	31.37%	0.09%	0.00%	0.14%	1.83%	100%
	Yellowfin Sole	20.04%	2.23%	0.00%	0.00%	0.00%	70.98%	0.65%	0.00%	0.00%	6.09%	100%

Table 3: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1995-2002, excluding 2000.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
					Trawl Allocations							
Total Catch	Pacific Cod	7.33%	6.33%	0.00%	0.07%	0.00%	17.92%	0.82%	0.02%	0.00%	67.51%	100%
	Pollock/Atka/other	29.52%	5.96%	0.00%	0.00%	0.00%	21.53%	0.90%	0.00%	0.00%	42.08%	100%
	Rock sole/flat.sole/other flatfish	1.88%	0.88%	0.00%	0.00%	0.00%	96.39%	0.00%	0.00%	0.00%	0.84%	100%
	Rockfish	32.53%	35.29%	0.00%	0.00%	0.00%	15.02%	6.93%	0.00%	0.00%	10.22%	100%
	Turbot/sablefish/arrowtooth	0.88%	0.35%	0.00%	0.00%	0.00%	89.77%	0.42%	0.00%	0.00%	8.58%	100%
	Yellowfin Sole	20.78%	2.71%	0.00%	0.00%	0.00%	70.23%	0.66%	0.00%	0.00%	5.63%	100%
Retained Catch	Pacific Cod	7.54%	6.40%	0.00%	0.08%	0.00%	17.14%	0.83%	0.02%	0.00%	68.00%	100%
	Pollock/Atka/other	29.47%	6.04%	0.00%	0.00%	0.00%	21.27%	0.90%	0.00%	0.00%	42.31%	100%
	Rock sole/flat.sole/other flatfish	1.30%	1.24%	0.00%	0.00%	0.00%	96.40%	0.00%	0.00%	0.00%	1.06%	100%
	Rockfish	32.53%	35.29%	0.00%	0.00%	0.00%	15.02%	6.93%	0.00%	0.00%	10.22%	100%
	Turbot/sablefish/arrowtooth	0.96%	0.38%	0.00%	0.00%	0.00%	89.28%	0.42%	0.00%	0.00%	8.97%	100%
	Yellowfin Sole	20.97%	2.48%	0.00%	0.00%	0.00%	69.32%	0.72%	0.00%	0.00%	6.50%	100%
					Non-Trawl Allocations							
Total Catch	Pacific Cod	0.00%	0.06%	0.00%	99.47%	0.30%	0.00%	0.00%	0.16%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	81.37%	18.63%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.06%	0.00%	99.50%	0.27%	0.00%	0.00%	0.16%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	82.46%	17.54%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
					Combined Trawl and Non-Trawl Allocations							
Total Catch	Pacific Cod	2.46%	2.16%	0.13%	55.22%	0.16%	6.01%	0.28%	2.35%	8.60%	22.63%	100%
	Pollock/Atka/other	29.38%	5.93%	0.00%	0.40%	0.02%	21.46%	0.90%	0.00%	0.03%	41.89%	100%
	Rock sole/flat.sole/other flatfish	1.88%	0.88%	0.00%	0.00%	0.00%	96.39%	0.00%	0.00%	0.00%	0.84%	100%
	Rockfish	0.99%	0.00%	0.05%	0.03%	0.12%	98.80%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.22%	0.09%	0.00%	60.97%	5.81%	30.53%	0.11%	0.00%	0.12%	2.15%	100%
	Yellowfin Sole	20.78%	2.71%	0.00%	0.00%	0.00%	70.23%	0.66%	0.00%	0.00%	5.63%	100%
Retained Catch	Pacific Cod	2.50%	2.15%	0.14%	55.41%	0.15%	5.67%	0.27%	2.39%	8.81%	22.50%	100%
	Total Pollock/Atka/other	29.33%	6.02%	0.00%	0.37%	0.02%	21.21%	0.90%	0.00%	0.04%	42.11%	100%
	Rock sole/flat.sole/other flatfish	1.30%	1.24%	0.00%	0.00%	0.00%	96.40%	0.00%	0.00%	0.00%	1.06%	100%
	Rockfish	0.91%	0.00%	0.05%	0.03%	0.13%	98.87%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.23%	0.09%	0.00%	62.55%	4.67%	30.04%	0.10%	0.00%	0.13%	2.18%	100%
	Yellowfin Sole	20.97%	2.48%	0.00%	0.00%	0.00%	69.32%	0.72%	0.00%	0.00%	6.50%	100%

Table 4: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1998-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	6.69%	2.27%	0.00%	0.00%	0.00%	23.67%	0.00%	0.01%	0.00%	67.36%	100%
	Pollock/Atka/other	25.70%	2.47%	0.00%	0.00%	0.00%	34.04%	0.00%	0.00%	0.00%	37.78%	100%
	Rock sole/flat.sole/other flatfish	1.17%	0.00%	0.00%	0.00%	0.00%	98.81%	0.00%	0.00%	0.00%	0.02%	100%
	Rockfish	36.62%	28.23%	0.00%	0.00%	0.00%	17.00%	0.00%	0.00%	0.00%	18.14%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.06%	100%
	Yellowfin Sole	12.50%	0.00%	0.00%	0.00%	0.00%	86.56%	0.00%	0.00%	0.00%	0.94%	100%
Retained Catch	Pacific Cod	6.69%	2.28%	0.00%	0.00%	0.00%	23.59%	0.00%	0.01%	0.00%	67.42%	100%
	Pollock/Atka/other	25.70%	2.58%	0.00%	0.00%	0.00%	33.92%	0.00%	0.00%	0.00%	37.80%	100%
	Rock sole/flat.sole/other flatfish	1.08%	0.00%	0.00%	0.00%	0.00%	98.90%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	36.62%	28.23%	0.00%	0.00%	0.00%	17.00%	0.00%	0.00%	0.00%	18.14%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.06%	100%
	Yellowfin Sole	13.45%	0.00%	0.00%	0.00%	0.00%	85.49%	0.00%	0.00%	0.00%	1.06%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.00%	0.00%	99.32%	0.43%	0.02%	0.00%	0.24%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	84.73%	15.27%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.00%	99.33%	0.42%	0.02%	0.00%	0.23%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	84.95%	15.05%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	2.15%	0.73%	0.09%	57.14%	0.25%	7.63%	0.00%	1.92%	8.40%	21.68%	100%
	Pollock/Atka/other	25.41%	2.45%	0.00%	1.03%	0.05%	33.70%	0.00%	0.00%	0.01%	37.35%	100%
	Rock sole/flat.sole/other flatfish	1.17%	0.00%	0.00%	0.00%	0.00%	98.81%	0.00%	0.00%	0.00%	0.02%	100%
	Rockfish	0.14%	0.00%	0.01%	0.04%	0.02%	99.76%	0.00%	0.00%	0.00%	0.03%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	54.52%	3.72%	41.50%	0.00%	0.00%	0.25%	0.00%	100%
	Yellowfin Sole	12.50%	0.00%	0.00%	0.00%	0.00%	86.56%	0.00%	0.00%	0.00%	0.94%	100%
Retained Catch	Pacific Cod	2.17%	0.74%	0.09%	56.82%	0.24%	7.65%	0.00%	1.94%	8.50%	21.84%	100%
	Total Pollock/Atka/other	25.41%	2.55%	0.00%	1.00%	0.05%	33.61%	0.00%	0.00%	0.01%	37.37%	100%
	Rock sole/flat.sole/other flatfish	1.08%	0.00%	0.00%	0.01%	0.00%	98.89%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	0.15%	0.00%	0.02%	0.04%	0.02%	99.75%	0.00%	0.00%	0.00%	0.03%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	55.07%	3.45%	41.23%	0.00%	0.00%	0.25%	0.00%	100%
	Yellowfin Sole	13.45%	0.00%	0.00%	0.00%	0.00%	85.49%	0.00%	0.00%	0.00%	1.06%	100%

Table 5: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1998-2002, excluding 2000.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
						Trawl Allocations						
Total Catch	Pacific Cod	7.35%	2.91%	0.00%	0.00%	0.00%	23.68%	0.00%	0.02%	0.00%	66.06%	100%
	Pollock/Atka/other	28.90%	2.88%	0.00%	0.00%	0.00%	25.87%	0.00%	0.00%	0.00%	42.35%	100%
	Rock sole/flat.sole/other flatfish	1.18%	0.00%	0.00%	0.00%	0.00%	98.79%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	36.96%	29.62%	0.00%	0.00%	0.00%	16.75%	0.00%	0.00%	0.00%	16.67%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	99.91%	0.00%	0.00%	0.00%	0.09%	100%
	Yellowfin Sole	13.11%	0.00%	0.00%	0.00%	0.00%	86.26%	0.00%	0.00%	0.00%	0.63%	100%
Retained Catch	Pacific Cod	7.35%	2.92%	0.00%	0.00%	0.00%	23.60%	0.00%	0.02%	0.00%	66.11%	100%
	Pollock/Atka/other	28.90%	2.99%	0.00%	0.00%	0.00%	25.74%	0.00%	0.00%	0.00%	42.37%	100%
	Rock sole/flat.sole/other flatfish	0.78%	0.00%	0.00%	0.00%	0.00%	99.19%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	36.96%	29.62%	0.00%	0.00%	0.00%	16.75%	0.00%	0.00%	0.00%	16.67%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	99.91%	0.00%	0.00%	0.00%	0.09%	100%
	Yellowfin Sole	13.93%	0.00%	0.00%	0.00%	0.00%	85.38%	0.00%	0.00%	0.00%	0.69%	100%
						Non-Trawl Allocations						
Total Catch	Pacific Cod	0.00%	0.00%	0.00%	99.43%	0.28%	0.00%	0.00%	0.28%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	83.42%	16.58%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.00%	99.45%	0.27%	0.00%	0.00%	0.28%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	83.68%	16.32%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
						Combined Trawl and Non-Trawl Allocations						
Total Catch	Pacific Cod	2.32%	0.92%	0.10%	58.25%	0.17%	7.47%	0.00%	1.99%	7.94%	20.85%	100%
	Pollock/Atka/other	28.62%	2.85%	0.00%	0.86%	0.05%	25.67%	0.00%	0.00%	0.01%	41.94%	100%
	Rock sole/flat.sole/other flatfish	1.18%	0.00%	0.00%	0.00%	0.00%	98.78%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	0.17%	0.00%	0.02%	0.03%	0.02%	99.76%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	51.95%	4.24%	43.54%	0.00%	0.00%	0.26%	0.00%	100%
	Yellowfin Sole	13.11%	0.00%	0.00%	0.00%	0.00%	86.26%	0.00%	0.00%	0.00%	0.63%	100%
Retained Catch	Pacific Cod	2.33%	0.93%	0.10%	57.99%	0.16%	7.49%	0.00%	2.01%	8.04%	20.97%	100%
	Total Pollock/Atka/other	28.62%	2.96%	0.00%	0.81%	0.06%	25.58%	0.00%	0.00%	0.02%	41.95%	100%
	Rock sole/flat.sole/other flatfish	0.78%	0.00%	0.00%	0.01%	0.00%	99.19%	0.00%	0.00%	0.00%	0.03%	100%
	Rockfish	0.18%	0.00%	0.02%	0.03%	0.02%	99.75%	0.00%	0.00%	0.00%	0.00%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	52.64%	3.96%	43.12%	0.00%	0.00%	0.27%	0.00%	100%
	Yellowfin Sole	13.93%	0.00%	0.00%	0.00%	0.00%	85.38%	0.00%	0.00%	0.00%	0.69%	100%

Table 6: PSC allocations based on relative percent of groundfish harvested within PSC target fisheries, 1998-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	4.26%	0.00%	0.00%	0.00%	0.00%	29.00%	0.00%	0.02%	0.00%	66.71%	100%
	Pollock/Atka/other	24.85%	0.00%	0.00%	0.00%	0.00%	37.86%	0.00%	0.00%	0.00%	37.29%	100%
	Rock sole/flat.sole/other flatfish	0.65%	0.00%	0.00%	0.00%	0.00%	99.32%	0.00%	0.00%	0.00%	0.04%	100%
	Rockfish	41.29%	0.00%	0.00%	0.00%	0.00%	25.39%	0.00%	0.00%	0.00%	33.32%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
	Yellowfin Sole	5.73%	0.00%	0.00%	0.00%	0.00%	93.47%	0.00%	0.00%	0.00%	0.80%	100%
Retained Catch	Pacific Cod	4.23%	0.00%	0.00%	0.00%	0.00%	28.90%	0.00%	0.02%	0.00%	66.84%	100%
	Pollock/Atka/other	24.85%	0.00%	0.00%	0.00%	0.00%	37.86%	0.00%	0.00%	0.00%	37.29%	100%
	Rock sole/flat.sole/other flatfish	0.95%	0.00%	0.00%	0.00%	0.00%	99.01%	0.00%	0.00%	0.00%	0.04%	100%
	Rockfish	41.29%	0.00%	0.00%	0.00%	0.00%	25.39%	0.00%	0.00%	0.00%	33.32%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
	Yellowfin Sole	6.48%	0.00%	0.00%	0.00%	0.00%	92.61%	0.00%	0.00%	0.00%	0.91%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.00%	0.00%	99.11%	0.63%	0.02%	0.00%	0.24%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	81.03%	18.97%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.00%	99.13%	0.61%	0.02%	0.00%	0.24%	0.00%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.00%	80.92%	19.08%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	1.33%	0.00%	0.07%	57.50%	0.36%	9.05%	0.00%	1.81%	9.07%	20.80%	100%
	Pollock/Atka/other	24.44%	0.00%	0.01%	1.51%	0.07%	37.30%	0.00%	0.00%	0.00%	36.67%	100%
	Rock sole/flat.sole/other flatfish	0.65%	0.00%	0.00%	0.00%	0.00%	99.32%	0.00%	0.00%	0.00%	0.04%	100%
	Rockfish	0.00%	0.00%	0.01%	0.04%	0.03%	99.88%	0.00%	0.00%	0.00%	0.05%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.01%	52.50%	3.08%	43.98%	0.00%	0.00%	0.43%	0.00%	100%
	Yellowfin Sole	5.73%	0.00%	0.00%	0.00%	0.00%	93.47%	0.00%	0.00%	0.00%	0.80%	100%
Retained Catch	Pacific Cod	1.32%	0.00%	0.07%	57.24%	0.35%	9.06%	0.00%	1.83%	9.18%	20.93%	100%
	Total Pollock/Atka/other	24.44%	0.00%	0.01%	1.46%	0.08%	37.34%	0.00%	0.00%	0.00%	36.67%	100%
	Rock sole/flat.sole/other flatfish	0.95%	0.00%	0.00%	0.00%	0.00%	99.01%	0.00%	0.00%	0.00%	0.04%	100%
	Rockfish	0.00%	0.00%	0.01%	0.03%	0.03%	99.88%	0.00%	0.00%	0.00%	0.05%	100%
	Turbot/sablefish/arrowtooth	0.00%	0.00%	0.01%	52.68%	2.97%	43.91%	0.00%	0.00%	0.44%	0.00%	100%
	Yellowfin Sole	6.48%	0.00%	0.00%	0.00%	0.00%	92.61%	0.00%	0.00%	0.00%	0.91%	100%

Table 7: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 1995-1997.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	9.74%	8.57%	0.00%	0.09%	0.00%	28.08%	2.51%	0.01%	0.00%	50.99%	100%
	Pollock/Atka/other	4.75%	7.98%	0.00%	0.00%	0.00%	83.29%	0.24%	0.00%	0.00%	3.75%	100%
	Rock sole/flat.sole/other flatfish	9.53%	3.82%	0.00%	0.00%	0.00%	72.14%	0.94%	0.00%	0.00%	13.57%	100%
	Rockfish	4.26%	4.70%	0.00%	0.01%	0.00%	89.89%	0.06%	0.00%	0.00%	1.08%	100%
	Turbot/sablefish/arrowtooth	4.48%	4.44%	0.00%	0.05%	0.00%	68.83%	1.56%	0.00%	0.00%	20.63%	100%
	Yellowfin Sole	24.11%	4.54%	0.00%	0.00%	0.00%	61.32%	1.04%	0.00%	0.00%	8.99%	100%
Retained Catch	Pacific Cod	7.33%	7.88%	0.00%	0.11%	0.00%	23.69%	1.78%	0.02%	0.00%	59.19%	100%
	Pollock/Atka/other	3.80%	9.27%	0.00%	0.00%	0.00%	85.06%	0.02%	0.00%	0.00%	1.86%	100%
	Rock sole/flat.sole/other flatfish	7.56%	2.57%	0.00%	0.00%	0.00%	83.97%	0.36%	0.00%	0.00%	5.53%	100%
	Rockfish	1.04%	1.57%	0.00%	0.00%	0.00%	96.87%	0.00%	0.00%	0.00%	0.52%	100%
	Turbot/sablefish/arrowtooth	1.95%	0.79%	0.00%	0.00%	0.00%	81.01%	1.30%	0.00%	0.00%	14.95%	100%
	Yellowfin Sole	24.63%	4.10%	0.00%	0.00%	0.00%	59.75%	1.16%	0.00%	0.00%	10.37%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.11%	0.26%	80.55%	0.60%	0.00%	0.00%	4.17%	14.30%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.07%	0.07%	85.52%	10.92%	0.00%	0.00%	0.59%	2.83%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.11%	0.27%	80.49%	0.22%	0.00%	0.00%	4.26%	14.66%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.17%	85.34%	13.68%	0.00%	0.00%	0.37%	0.44%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	4.52%	4.03%	0.14%	43.22%	0.32%	13.03%	1.17%	2.24%	7.67%	23.65%	100%
	Pollock/Atka/other	25.57%	9.44%	0.00%	0.49%	0.01%	26.95%	1.91%	0.00%	0.03%	35.59%	100%
	Rock sole/flat.sole/other flatfish	7.87%	3.80%	0.00%	0.49%	0.00%	72.59%	0.96%	0.00%	0.01%	14.27%	100%
	Rockfish	2.48%	2.36%	0.06%	1.48%	0.66%	90.89%	0.19%	0.00%	0.03%	1.86%	100%
	Turbot/sablefish/arrowtooth	1.55%	1.15%	0.00%	45.45%	13.57%	30.22%	0.62%	0.00%	0.04%	7.39%	100%
	Yellowfin Sole	24.07%	4.53%	0.00%	0.11%	0.00%	61.20%	1.04%	0.02%	0.06%	8.97%	100%
Retained Catch	Pacific Cod	2.99%	3.28%	0.16%	47.68%	0.13%	9.67%	0.73%	2.53%	8.68%	24.16%	100%
	Total Pollock/Atka/other	26.43%	9.90%	0.00%	0.31%	0.00%	24.43%	2.00%	0.00%	0.00%	36.91%	100%
	Rock sole/flat.sole/other flatfish	6.05%	2.69%	0.00%	0.06%	0.00%	86.25%	0.37%	0.00%	0.00%	4.59%	100%
	Rockfish	1.47%	0.36%	0.09%	1.15%	0.63%	94.91%	0.03%	0.00%	0.01%	1.36%	100%
	Turbot/sablefish/arrowtooth	0.87%	0.38%	0.00%	51.90%	4.69%	35.16%	0.63%	0.00%	0.01%	6.36%	100%
	Yellowfin Sole	24.63%	4.09%	0.00%	0.01%	0.00%	59.74%	1.16%	0.00%	0.00%	10.37%	100%

Table 8: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 1995-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	8.66%	5.27%	0.00%	0.04%	0.00%	33.60%	1.24%	0.01%	0.00%	51.17%	100%
	Pollock/Atka/other	3.42%	4.90%	0.00%	0.00%	0.00%	88.36%	0.11%	0.00%	0.00%	3.22%	100%
	Rock sole/flat.sole/other flatfish	7.36%	1.85%	0.00%	0.00%	0.00%	80.64%	0.42%	0.00%	0.00%	9.73%	100%
	Rockfish	2.22%	2.89%	0.00%	0.00%	0.00%	93.78%	0.02%	0.00%	0.00%	1.09%	100%
	Turbot/sablefish/arrowtooth	3.57%	1.90%	0.00%	0.02%	0.00%	83.46%	0.53%	0.00%	0.00%	10.52%	100%
	Yellowfin Sole	18.41%	2.46%	0.00%	0.00%	0.00%	73.24%	0.55%	0.00%	0.00%	5.34%	100%
Retained Catch	Pacific Cod	7.45%	4.58%	0.00%	0.05%	0.00%	32.07%	0.78%	0.01%	0.00%	55.06%	100%
	Pollock/Atka/other	2.46%	5.92%	0.00%	0.00%	0.00%	90.09%	0.01%	0.00%	0.00%	1.52%	100%
	Rock sole/flat.sole/other flatfish	5.81%	1.03%	0.00%	0.00%	0.00%	88.93%	0.14%	0.00%	0.00%	4.09%	100%
	Rockfish	1.33%	0.89%	0.00%	0.00%	0.00%	97.32%	0.00%	0.00%	0.00%	0.46%	100%
	Turbot/sablefish/arrowtooth	2.19%	0.24%	0.00%	0.00%	0.00%	90.68%	0.31%	0.00%	0.00%	6.58%	100%
	Yellowfin Sole	19.00%	2.13%	0.00%	0.00%	0.00%	72.33%	0.60%	0.00%	0.00%	5.93%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.05%	0.18%	82.64%	0.52%	0.01%	0.00%	3.40%	13.20%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.03%	0.04%	87.75%	8.41%	0.01%	0.00%	0.59%	3.18%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.05%	0.19%	82.53%	0.31%	0.01%	0.00%	3.46%	13.46%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.10%	85.99%	12.34%	0.00%	0.00%	0.26%	1.31%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	3.71%	2.28%	0.11%	47.26%	0.30%	14.40%	0.53%	1.95%	7.55%	21.92%	100%
	Pollock/Atka/other	26.85%	5.23%	0.00%	0.56%	0.00%	27.88%	0.73%	0.00%	0.03%	38.71%	100%
	Rock sole/flat.sole/other flatfish	6.68%	1.77%	0.00%	0.50%	0.00%	80.65%	0.41%	0.00%	0.01%	10.00%	100%
	Rockfish	1.90%	1.38%	0.04%	2.26%	0.74%	91.77%	0.08%	0.00%	0.03%	1.79%	100%
	Turbot/sablefish/arrowtooth	1.30%	0.53%	0.00%	50.35%	9.11%	34.38%	0.24%	0.01%	0.36%	3.73%	100%
	Yellowfin Sole	18.34%	2.45%	0.00%	0.28%	0.00%	72.97%	0.55%	0.04%	0.05%	5.32%	100%
Retained Catch	Pacific Cod	3.00%	1.87%	0.11%	49.32%	0.19%	12.92%	0.31%	2.07%	8.04%	22.17%	100%
	Total Pollock/Atka/other	27.51%	5.40%	0.00%	0.47%	0.00%	26.33%	0.74%	0.00%	0.00%	39.55%	100%
	Rock sole/flat.sole/other flatfish	5.45%	1.05%	0.00%	0.05%	0.00%	90.08%	0.14%	0.00%	0.00%	3.23%	100%
	Rockfish	1.03%	0.16%	0.06%	1.48%	0.65%	95.09%	0.01%	0.00%	0.01%	1.52%	100%
	Turbot/sablefish/arrowtooth	0.86%	0.11%	0.00%	54.23%	4.09%	37.68%	0.13%	0.00%	0.14%	2.76%	100%
	Yellowfin Sole	19.00%	2.13%	0.00%	0.01%	0.00%	72.32%	0.60%	0.00%	0.00%	5.93%	100%

Table 9: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 1995-2002, excluding 2000.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
						Trawl Allocations						
Total Catch	Pacific Cod	9.10%	5.90%	0.00%	0.05%	0.00%	33.02%	1.39%	0.01%	0.00%	50.53%	100%
	Pollock/Atka/other	3.49%	5.39%	0.00%	0.00%	0.00%	87.67%	0.12%	0.00%	0.00%	3.32%	100%
	Rock sole/flat.sole/other flatfish	7.71%	2.14%	0.00%	0.00%	0.00%	79.27%	0.49%	0.00%	0.00%	10.40%	100%
	Rockfish	2.40%	3.31%	0.00%	0.00%	0.00%	93.19%	0.02%	0.00%	0.00%	1.07%	100%
	Turbot/sablefish/arrowtooth	3.67%	2.19%	0.00%	0.02%	0.00%	82.16%	0.61%	0.00%	0.00%	11.35%	100%
	Yellowfin Sole	19.32%	2.73%	0.00%	0.00%	0.00%	71.66%	0.62%	0.00%	0.00%	5.67%	100%
Retained Catch	Pacific Cod	7.79%	5.20%	0.00%	0.06%	0.00%	31.25%	0.88%	0.02%	0.00%	54.81%	100%
	Pollock/Atka/other	2.61%	6.53%	0.00%	0.00%	0.00%	89.24%	0.01%	0.00%	0.00%	1.62%	100%
	Rock sole/flat.sole/other flatfish	6.00%	1.19%	0.00%	0.00%	0.00%	88.51%	0.17%	0.00%	0.00%	4.13%	100%
	Rockfish	1.35%	0.98%	0.00%	0.00%	0.00%	97.17%	0.00%	0.00%	0.00%	0.49%	100%
	Turbot/sablefish/arrowtooth	2.33%	0.30%	0.00%	0.00%	0.00%	90.12%	0.39%	0.00%	0.00%	6.87%	100%
	Yellowfin Sole	19.90%	2.38%	0.00%	0.00%	0.00%	70.73%	0.67%	0.00%	0.00%	6.32%	100%
						Non-Trawl Allocations						
Total Catch	Pacific Cod	0.00%	0.05%	0.20%	82.87%	0.46%	0.00%	0.00%	3.51%	12.90%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.03%	0.04%	87.55%	8.73%	0.00%	0.00%	0.59%	3.04%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.05%	0.20%	82.79%	0.24%	0.00%	0.00%	3.56%	13.15%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.11%	85.43%	12.90%	0.00%	0.00%	0.30%	1.27%	0.00%	100%
						Combined Trawl and Non-Trawl Allocations						
Total Catch	Pacific Cod	3.91%	2.57%	0.11%	47.25%	0.26%	14.20%	0.60%	2.01%	7.35%	21.73%	100%
	Pollock/Atka/other	26.75%	5.84%	0.00%	0.55%	0.00%	27.66%	0.82%	0.00%	0.03%	38.35%	100%
	Rock sole/flat.sole/other flatfish	6.81%	2.04%	0.00%	0.50%	0.00%	79.48%	0.47%	0.00%	0.01%	10.68%	100%
	Rockfish	2.06%	1.55%	0.04%	2.14%	0.72%	91.44%	0.09%	0.00%	0.03%	1.93%	100%
	Turbot/sablefish/arrowtooth	1.35%	0.61%	0.00%	49.59%	9.84%	33.87%	0.28%	0.01%	0.37%	4.08%	100%
	Yellowfin Sole	19.25%	2.72%	0.00%	0.28%	0.00%	71.40%	0.61%	0.03%	0.05%	5.65%	100%
Retained Catch	Pacific Cod	3.12%	2.12%	0.12%	49.63%	0.14%	12.53%	0.35%	2.14%	7.88%	21.96%	100%
	Total Pollock/Atka/other	27.41%	6.04%	0.00%	0.46%	0.00%	26.03%	0.83%	0.00%	0.00%	39.22%	100%
	Rock sole/flat.sole/other flatfish	5.47%	1.22%	0.00%	0.05%	0.00%	89.83%	0.17%	0.00%	0.00%	3.27%	100%
	Rockfish	1.13%	0.18%	0.06%	1.41%	0.65%	94.87%	0.01%	0.00%	0.01%	1.67%	100%
	Turbot/sablefish/arrowtooth	0.93%	0.13%	0.00%	54.04%	4.44%	37.25%	0.16%	0.00%	0.13%	2.93%	100%
	Yellowfin Sole	19.89%	2.38%	0.00%	0.01%	0.00%	70.72%	0.67%	0.00%	0.00%	6.32%	100%

Table 10: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 1998-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
					Trawl Allocations							
Total Catch	Pacific Cod	7.59%	2.04%	0.00%	0.00%	0.00%	39.02%	0.00%	0.01%	0.00%	51.34%	100%
	Pollock/Atka/other	2.25%	2.19%	0.00%	0.00%	0.00%	92.81%	0.00%	0.00%	0.00%	2.75%	100%
	Rock sole/flat.sole/other flatfish	5.57%	0.23%	0.00%	0.00%	0.00%	87.61%	0.00%	0.00%	0.00%	6.58%	100%
	Rockfish	1.06%	1.86%	0.00%	0.00%	0.00%	96.00%	0.00%	0.00%	0.00%	1.09%	100%
	Turbot/sablefish/arrowtooth	3.10%	0.58%	0.00%	0.00%	0.00%	91.01%	0.00%	0.00%	0.00%	5.31%	100%
	Yellowfin Sole	11.97%	0.11%	0.00%	0.00%	0.00%	86.70%	0.00%	0.00%	0.00%	1.22%	100%
Retained Catch	Pacific Cod	7.53%	2.04%	0.00%	0.00%	0.00%	38.54%	0.00%	0.01%	0.00%	51.88%	100%
	Pollock/Atka/other	1.26%	2.89%	0.00%	0.00%	0.00%	94.65%	0.00%	0.00%	0.00%	1.20%	100%
	Rock sole/flat.sole/other flatfish	4.66%	0.01%	0.00%	0.00%	0.00%	92.20%	0.00%	0.00%	0.00%	3.14%	100%
	Rockfish	1.70%	0.01%	0.00%	0.00%	0.00%	97.92%	0.00%	0.00%	0.00%	0.38%	100%
	Turbot/sablefish/arrowtooth	2.26%	0.06%	0.00%	0.00%	0.00%	93.74%	0.00%	0.00%	0.00%	3.94%	100%
	Yellowfin Sole	12.91%	0.00%	0.00%	0.00%	0.00%	85.97%	0.00%	0.00%	0.00%	1.12%	100%
					Non-Trawl Allocations							
Total Catch	Pacific Cod	0.00%	0.00%	0.13%	84.21%	0.46%	0.01%	0.00%	2.82%	12.37%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.02%	89.08%	6.92%	0.02%	0.00%	0.58%	3.39%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.13%	84.05%	0.38%	0.01%	0.00%	2.86%	12.56%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.06%	86.35%	11.60%	0.00%	0.00%	0.21%	1.79%	0.00%	100%
					Combined Trawl and Non-Trawl Allocations							
Total Catch	Pacific Cod	3.03%	0.81%	0.08%	50.66%	0.28%	15.55%	0.00%	1.70%	7.44%	20.45%	100%
	Pollock/Atka/other	27.46%	2.29%	0.00%	0.61%	0.00%	28.97%	0.00%	0.00%	0.02%	40.64%	100%
	Rock sole/flat.sole/other flatfish	5.74%	0.23%	0.00%	0.50%	0.00%	86.83%	0.00%	0.00%	0.00%	6.70%	100%
	Rockfish	1.50%	0.69%	0.02%	2.82%	0.80%	92.39%	0.00%	0.00%	0.03%	1.74%	100%
	Turbot/sablefish/arrowtooth	1.14%	0.17%	0.01%	54.03%	5.99%	36.67%	0.00%	0.01%	0.58%	1.41%	100%
	Yellowfin Sole	11.90%	0.11%	0.00%	0.48%	0.00%	86.21%	0.00%	0.05%	0.04%	1.22%	100%
Retained Catch	Pacific Cod	3.00%	0.81%	0.08%	50.56%	0.23%	15.36%	0.00%	1.73%	7.56%	20.67%	100%
	Total Pollock/Atka/other	27.95%	2.40%	0.00%	0.57%	0.00%	28.00%	0.00%	0.00%	0.00%	41.08%	100%
	Rock sole/flat.sole/other flatfish	4.94%	0.01%	0.00%	0.04%	0.00%	92.71%	0.00%	0.00%	0.00%	2.31%	100%
	Rockfish	0.68%	0.00%	0.03%	1.74%	0.67%	95.23%	0.00%	0.00%	0.00%	1.64%	100%
	Turbot/sablefish/arrowtooth	0.77%	0.02%	0.01%	57.23%	3.74%	36.87%	0.00%	0.00%	0.21%	1.15%	100%
	Yellowfin Sole	12.90%	0.00%	0.00%	0.02%	0.00%	85.95%	0.00%	0.00%	0.00%	1.12%	100%

Table 11: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 1998-2002, excluding 2000.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	8.31%	2.58%	0.00%	0.00%	0.00%	39.16%	0.00%	0.01%	0.00%	49.94%	100%
	Pollock/Atka/other	2.16%	2.65%	0.00%	0.00%	0.00%	92.32%	0.00%	0.00%	0.00%	2.87%	100%
	Rock sole/flat.sole/other flatfis	5.73%	0.31%	0.00%	0.00%	0.00%	87.02%	0.00%	0.00%	0.00%	6.95%	100%
	Rockfish	1.08%	2.32%	0.00%	0.00%	0.00%	95.54%	0.00%	0.00%	0.00%	1.06%	100%
	Turbot/sablefish/arrowtooth	3.14%	0.73%	0.00%	0.00%	0.00%	90.80%	0.00%	0.00%	0.00%	5.33%	100%
	Yellowfin Sole	12.43%	0.14%	0.00%	0.00%	0.00%	86.55%	0.00%	0.00%	0.00%	0.88%	100%
Retained Catch	Pacific Cod	8.24%	2.58%	0.00%	0.00%	0.00%	38.65%	0.00%	0.01%	0.00%	50.52%	100%
	Pollock/Atka/other	1.29%	3.51%	0.00%	0.00%	0.00%	93.84%	0.00%	0.00%	0.00%	1.35%	100%
	Rock sole/flat.sole/other flatfis	4.67%	0.01%	0.00%	0.00%	0.00%	92.38%	0.00%	0.00%	0.00%	2.94%	100%
	Rockfish	1.86%	0.01%	0.00%	0.00%	0.00%	97.68%	0.00%	0.00%	0.00%	0.45%	100%
	Turbot/sablefish/arrowtooth	2.50%	0.08%	0.00%	0.00%	0.00%	94.03%	0.00%	0.00%	0.00%	3.39%	100%
	Yellowfin Sole	13.35%	0.00%	0.00%	0.00%	0.00%	85.93%	0.00%	0.00%	0.00%	0.72%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.00%	0.14%	85.05%	0.33%	0.00%	0.00%	2.89%	11.59%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.02%	89.06%	7.11%	0.01%	0.00%	0.60%	3.21%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.14%	84.91%	0.26%	0.00%	0.00%	2.92%	11.76%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.06%	85.50%	12.35%	0.00%	0.00%	0.25%	1.84%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	8.31%	2.58%	0.00%	0.00%	0.00%	39.16%	0.00%	0.01%	0.00%	49.94%	100%
	Pollock/Atka/other	2.16%	2.65%	0.00%	0.00%	0.00%	92.32%	0.00%	0.00%	0.00%	2.87%	100%
	Rock sole/flat.sole/other flatfis	5.73%	0.31%	0.00%	0.00%	0.00%	87.02%	0.00%	0.00%	0.00%	6.95%	100%
	Rockfish	1.08%	2.32%	0.00%	0.00%	0.00%	95.54%	0.00%	0.00%	0.00%	1.06%	100%
	Turbot/sablefish/arrowtooth	3.14%	0.73%	0.00%	0.00%	0.00%	90.80%	0.00%	0.00%	0.00%	5.33%	100%
	Yellowfin Sole	12.43%	0.14%	0.00%	0.00%	0.00%	86.55%	0.00%	0.00%	0.00%	0.88%	100%
Retained Catch	Pacific Cod	8.24%	2.58%	0.00%	0.00%	0.00%	38.65%	0.00%	0.01%	0.00%	50.52%	100%
	Pollock/Atka/other	1.29%	3.51%	0.00%	0.00%	0.00%	93.84%	0.00%	0.00%	0.00%	1.35%	100%
	Rock sole/flat.sole/other flatfis	4.67%	0.01%	0.00%	0.00%	0.00%	92.38%	0.00%	0.00%	0.00%	2.94%	100%
	Rockfish	1.86%	0.01%	0.00%	0.00%	0.00%	97.68%	0.00%	0.00%	0.00%	0.45%	100%
	Turbot/sablefish/arrowtooth	2.50%	0.08%	0.00%	0.00%	0.00%	94.03%	0.00%	0.00%	0.00%	3.39%	100%
	Yellowfin Sole	13.35%	0.00%	0.00%	0.00%	0.00%	85.93%	0.00%	0.00%	0.00%	0.72%	100%

Table 12: PSC allocations based on relative percent of groundfish harvested regardless of target fishery, 2000-2002.

Data	PSC Group	AFA 20	AFA 9	JIG-CV	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
Trawl Allocations												
Total Catch	Pacific Cod	5.58%	0.00%	0.00%	0.00%	0.00%	42.82%	0.00%	0.02%	0.00%	51.59%	100%
	Pollock/Atka/other	1.98%	0.00%	0.00%	0.00%	0.00%	95.20%	0.00%	0.00%	0.00%	2.82%	100%
	Rock sole/flat.sole/other flatfish	4.63%	0.00%	0.00%	0.00%	0.00%	90.13%	0.00%	0.00%	0.00%	5.24%	100%
	Rockfish	1.05%	0.00%	0.00%	0.00%	0.00%	97.92%	0.00%	0.00%	0.00%	1.03%	100%
	Turbot/sablefish/arrowtooth	2.16%	0.00%	0.00%	0.00%	0.00%	92.31%	0.00%	0.00%	0.00%	5.54%	100%
	Yellowfin Sole	6.13%	0.00%	0.00%	0.00%	0.00%	92.67%	0.00%	0.00%	0.00%	1.20%	100%
Retained Catch	Pacific Cod	5.59%	0.00%	0.00%	0.00%	0.00%	42.35%	0.00%	0.02%	0.00%	52.05%	100%
	Pollock/Atka/other	1.07%	0.00%	0.00%	0.00%	0.00%	97.55%	0.00%	0.00%	0.00%	1.38%	100%
	Rock sole/flat.sole/other flatfish	4.00%	0.00%	0.00%	0.00%	0.00%	92.77%	0.00%	0.00%	0.00%	3.23%	100%
	Rockfish	1.59%	0.00%	0.00%	0.00%	0.00%	98.03%	0.00%	0.00%	0.00%	0.38%	100%
	Turbot/sablefish/arrowtooth	1.95%	0.00%	0.00%	0.00%	0.00%	93.97%	0.00%	0.00%	0.00%	4.08%	100%
	Yellowfin Sole	6.63%	0.00%	0.00%	0.00%	0.00%	92.34%	0.00%	0.00%	0.00%	1.03%	100%
Non-Trawl Allocations												
Total Catch	Pacific Cod	0.00%	0.00%	0.09%	83.47%	0.64%	0.02%	0.00%	2.62%	13.15%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.02%	88.18%	7.23%	0.02%	0.00%	0.61%	3.94%	0.00%	100%
Retained Catch	Pacific Cod	0.00%	0.00%	0.10%	83.32%	0.56%	0.02%	0.00%	2.65%	13.36%	0.00%	100%
	Other Non-Trawl Total	0.00%	0.00%	0.06%	84.08%	13.00%	0.00%	0.00%	0.20%	2.65%	0.00%	100%
Combined Trawl and Non-Trawl Allocations												
Total Catch	Pacific Cod	5.58%	0.00%	0.00%	0.00%	0.00%	42.82%	0.00%	0.02%	0.00%	51.59%	100%
	Pollock/Atka/other	1.98%	0.00%	0.00%	0.00%	0.00%	95.20%	0.00%	0.00%	0.00%	2.82%	100%
	Rock sole/flat.sole/other flatfish	4.63%	0.00%	0.00%	0.00%	0.00%	90.13%	0.00%	0.00%	0.00%	5.24%	100%
	Rockfish	1.05%	0.00%	0.00%	0.00%	0.00%	97.92%	0.00%	0.00%	0.00%	1.03%	100%
	Turbot/sablefish/arrowtooth	2.16%	0.00%	0.00%	0.00%	0.00%	92.31%	0.00%	0.00%	0.00%	5.54%	100%
	Yellowfin Sole	6.13%	0.00%	0.00%	0.00%	0.00%	92.67%	0.00%	0.00%	0.00%	1.20%	100%
Retained Catch	Pacific Cod	5.59%	0.00%	0.00%	0.00%	0.00%	42.35%	0.00%	0.02%	0.00%	52.05%	100%
	Pollock/Atka/other	1.07%	0.00%	0.00%	0.00%	0.00%	97.55%	0.00%	0.00%	0.00%	1.38%	100%
	Rock sole/flat.sole/other flatfish	4.00%	0.00%	0.00%	0.00%	0.00%	92.77%	0.00%	0.00%	0.00%	3.23%	100%
	Rockfish	1.59%	0.00%	0.00%	0.00%	0.00%	98.03%	0.00%	0.00%	0.00%	0.38%	100%
	Turbot/sablefish/arrowtooth	1.95%	0.00%	0.00%	0.00%	0.00%	93.97%	0.00%	0.00%	0.00%	4.08%	100%
	Yellowfin Sole	6.63%	0.00%	0.00%	0.00%	0.00%	92.34%	0.00%	0.00%	0.00%	1.03%	100%

Table 13: PSC Allocations based on historic percentage of PSC harvests by sector, 1995-1997.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.09%	99.14%	0.71%	0.00%	0.00%	0.06%	0.00%	0.00%	100%
		Other Species	0.00%	0.00%	85.33%	14.67%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	2.17%	3.34%	0.10%	0.00%	16.04%	1.70%	0.01%	0.00%	76.64%	100%
		Pollock/Atka/other	24.11%	13.69%	0.00%	0.00%	21.31%	20.93%	0.00%	0.00%	19.96%	100%
		Rockfish	0.49%	0.00%	0.00%	0.00%	99.51%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	2.14%	1.57%	0.00%	0.00%	95.60%	0.00%	0.00%	0.00%	0.70%	100%
		Turbot/sablefish/arrowtooth	2.21%	10.16%	0.00%	0.00%	39.71%	8.96%	0.00%	0.00%	38.96%	100%
		Yellowfin sole	23.75%	4.67%	0.00%	0.00%	55.94%	1.94%	0.00%	0.00%	13.70%	100%
	Herring (mt)	Pacific Cod	7.15%	46.98%	1.04%	0.00%	1.41%	0.00%	0.00%	0.00%	43.42%	100%
		Pollock/Atka/other	32.47%	4.10%	0.00%	0.00%	0.48%	0.40%	0.00%	0.00%	62.55%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	1.42%	2.10%	0.00%	0.00%	96.11%	0.00%	0.00%	0.00%	0.36%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	94.98%	0.00%	0.00%	0.00%	5.02%	100%
		Yellowfin sole	5.97%	4.98%	0.00%	0.00%	78.42%	0.00%	0.00%	0.00%	10.63%	100%
	Red King Crab (# of Animals)	Pacific Cod	2.84%	3.69%	0.05%	0.00%	47.18%	14.34%	0.00%	0.00%	31.91%	100%
		Pollock/Atka/other	21.24%	30.34%	0.00%	0.00%	35.04%	10.55%	0.00%	0.00%	2.83%	100%
		Rockfish	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	2.19%	0.02%	0.00%	0.00%	96.31%	0.00%	0.00%	0.00%	1.49%	100%
		Turbot/sablefish/arrowtooth	0.06%	0.00%	0.00%	0.00%	49.43%	44.70%	0.00%	0.00%	5.81%	100%
		Yellowfin sole	11.38%	2.51%	0.00%	0.00%	52.06%	2.56%	0.00%	0.00%	31.49%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.88%	5.34%	0.00%	0.00%	51.25%	5.28%	0.00%	0.00%	37.25%	100%
		Pollock/Atka/other	15.60%	19.20%	0.00%	0.00%	8.75%	52.96%	0.00%	0.00%	3.49%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	6.73%	0.36%	0.00%	0.00%	91.93%	0.00%	0.00%	0.00%	0.98%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	43.51%	1.19%	0.00%	0.00%	38.35%	0.99%	0.00%	0.00%	15.97%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	5.22%	7.37%	0.57%	0.00%	27.36%	1.06%	0.18%	0.00%	58.25%	100%
		Pollock/Atka/other	15.79%	39.50%	0.00%	0.00%	12.55%	13.29%	0.00%	0.00%	18.87%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.77%	1.02%	0.00%	0.00%	97.98%	0.00%	0.00%	0.00%	0.24%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.55%	0.00%	0.00%	0.00%	0.45%	100%
		Yellowfin sole	15.82%	2.19%	0.00%	0.00%	72.66%	2.20%	0.00%	0.00%	7.13%	100%
	C. Opilio (# of Animals)	Pacific Cod	1.35%	3.50%	0.20%	0.00%	46.00%	0.55%	0.09%	0.00%	48.31%	100%
		Pollock/Atka/other	31.28%	36.54%	0.00%	0.00%	15.00%	8.63%	0.00%	0.00%	8.56%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.47%	0.88%	0.00%	0.00%	98.31%	0.00%	0.00%	0.00%	0.33%	100%
		Turbot/sablefish/arrowtooth	2.60%	0.08%	0.00%	0.00%	82.23%	2.37%	0.00%	0.00%	12.72%	100%
		Yellowfin sole	19.53%	3.09%	0.00%	0.00%	71.10%	0.95%	0.00%	0.00%	5.32%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	1.18%	1.86%	44.37%	0.32%	8.74%	0.93%	0.21%	0.62%	41.77%	100%
		Pollock/Atka/other	24.10%	13.69%	0.03%	0.00%	21.30%	20.93%	0.00%	0.00%	19.95%	100%
		Rockfish	0.47%	0.00%	0.70%	4.65%	94.19%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	2.14%	1.57%	0.00%	0.00%	95.60%	0.00%	0.00%	0.00%	0.70%	100%
		Turbot/sablefish/arrowtooth	1.07%	4.93%	45.18%	5.90%	19.28%	4.35%	0.00%	0.35%	18.92%	100%
		Yellowfin sole	23.75%	4.67%	0.00%	0.00%	55.94%	1.94%	0.00%	0.00%	13.70%	100%

Table 14: PSC Allocations based on historic percentage of PSC harvests by sector, 1995-2002.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.04%	98.98%	0.82%	0.02%	0.00%	0.14%	0.00%	0.00%	100%
		Other Species	0.00%	0.00%	89.97%	10.03%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	1.76%	1.67%	0.04%	0.00%	24.03%	0.79%	0.01%	0.00%	71.70%	100%
		Pollock/Atka/other	24.36%	9.64%	0.00%	0.00%	31.00%	10.03%	0.00%	0.00%	24.97%	100%
		Rockfish	0.20%	0.00%	0.00%	0.00%	99.76%	0.00%	0.00%	0.00%	0.04%	100%
		Rocksole/Oth.flat/flat sole	1.28%	0.60%	0.00%	0.00%	97.83%	0.00%	0.00%	0.00%	0.29%	100%
		Turbot/sablefish/arrowtooth	1.05%	4.83%	0.00%	0.00%	71.25%	4.26%	0.00%	0.00%	18.61%	100%
		Yellowfin sole	12.43%	1.59%	0.00%	0.00%	80.45%	0.66%	0.00%	0.00%	4.87%	100%
	Herring (mt)	Pacific Cod	6.12%	38.76%	0.86%	0.00%	13.66%	0.00%	0.00%	0.00%	40.60%	100%
		Pollock/Atka/other	25.37%	2.65%	0.00%	0.00%	0.39%	0.23%	0.00%	0.00%	71.36%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	1.22%	1.57%	0.00%	0.00%	96.94%	0.00%	0.00%	0.00%	0.27%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.51%	0.00%	0.00%	0.00%	0.49%	100%
		Yellowfin sole	4.77%	3.79%	0.00%	0.00%	83.32%	0.00%	0.00%	0.00%	8.13%	100%
	Red King Crab (# of Animals)	Pacific Cod	5.38%	1.33%	0.01%	0.00%	57.99%	3.33%	0.00%	0.00%	31.96%	100%
		Pollock/Atka/other	14.70%	39.11%	0.00%	0.00%	30.02%	6.56%	0.00%	0.00%	9.61%	100%
		Rockfish	58.19%	0.00%	0.00%	0.00%	41.81%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.88%	0.00%	0.00%	0.00%	98.72%	0.00%	0.00%	0.00%	0.39%	100%
		Turbot/sablefish/arrowtooth	0.05%	0.00%	0.00%	0.00%	55.69%	39.17%	0.00%	0.00%	5.09%	100%
		Yellowfin sole	6.86%	0.58%	0.00%	0.00%	83.63%	0.59%	0.00%	0.00%	8.34%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.59%	3.19%	0.00%	0.00%	58.62%	3.15%	0.00%	0.00%	34.45%	100%
		Pollock/Atka/other	16.96%	18.67%	0.00%	0.00%	10.78%	49.77%	0.00%	0.00%	3.83%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	5.04%	0.18%	0.00%	0.00%	94.27%	0.00%	0.00%	0.00%	0.50%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	32.18%	0.69%	0.00%	0.00%	56.98%	0.57%	0.00%	0.00%	9.58%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	3.55%	3.39%	0.26%	0.00%	33.84%	0.49%	0.08%	0.00%	58.39%	100%
		Pollock/Atka/other	15.72%	50.57%	0.00%	0.00%	12.14%	8.27%	0.00%	0.00%	13.31%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.25%	0.29%	0.00%	0.00%	99.39%	0.00%	0.00%	0.00%	0.07%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.96%	0.00%	0.00%	0.00%	0.04%	100%
		Yellowfin sole	11.30%	1.32%	0.00%	0.00%	81.46%	1.33%	0.00%	0.00%	4.59%	100%
	C. Opilio (# of Animals)	Pacific Cod	1.06%	1.79%	0.09%	0.00%	55.69%	0.25%	0.04%	0.00%	41.07%	100%
		Pollock/Atka/other	32.38%	34.80%	0.00%	0.00%	15.44%	6.84%	0.00%	0.00%	10.54%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	99.95%	0.00%	0.00%	0.00%	0.05%	100%
		Rocksole/Oth.flat/flat sole	0.70%	0.45%	0.00%	0.00%	98.68%	0.00%	0.00%	0.00%	0.17%	100%
		Turbot/sablefish/arrowtooth	1.75%	0.05%	0.00%	0.00%	88.04%	1.59%	0.00%	0.00%	8.57%	100%
		Yellowfin sole	12.78%	1.71%	0.00%	0.00%	81.69%	0.52%	0.00%	0.00%	3.30%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	0.94%	0.91%	45.76%	0.38%	12.81%	0.42%	0.16%	0.40%	38.21%	100%
		Pollock/Atka/other	24.21%	9.58%	0.61%	0.00%	30.81%	9.97%	0.00%	0.00%	24.82%	100%
		Rockfish	0.20%	0.00%	0.66%	2.27%	96.83%	0.00%	0.00%	0.00%	0.04%	100%
		Rocksole/Oth.flat/flat sole	1.28%	0.60%	0.00%	0.00%	97.83%	0.00%	0.00%	0.00%	0.29%	100%
		Turbot/sablefish/arrowtooth	0.47%	2.16%	49.14%	4.75%	31.89%	1.91%	0.00%	1.36%	8.33%	100%
		Yellowfin sole	12.43%	1.59%	0.00%	0.00%	80.45%	0.66%	0.00%	0.00%	4.87%	100%

Table 15: PSC Allocations based on historic percentage of PSC harvests by sector, 1995-2002, excluding 2000.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.04%	98.98%	0.83%	0.00%	0.00%	0.15%	0.00%	0.00%	100%
		Other Non-trawl	0.00%	0.00%	87.94%	12.06%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	1.87%	1.85%	0.05%	0.00%	23.15%	0.88%	0.01%	0.00%	72.20%	100%
		Pollock/Atka/other	25.09%	10.90%	0.00%	0.00%	26.49%	11.34%	0.00%	0.00%	26.18%	100%
		Rockfish	0.21%	0.00%	0.00%	0.00%	99.79%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	1.37%	0.69%	0.00%	0.00%	97.61%	0.00%	0.00%	0.00%	0.33%	100%
		Turbot/sablefish/arrowtooth	1.23%	5.62%	0.00%	0.00%	66.49%	4.96%	0.00%	0.00%	21.70%	100%
		Yellowfin sole	13.93%	1.82%	0.00%	0.00%	77.96%	0.76%	0.00%	0.00%	5.53%	100%
	Herring (mt)	Pacific Cod	5.96%	39.17%	0.87%	0.00%	13.13%	0.00%	0.00%	0.00%	40.87%	100%
		Pollock/Atka/other	26.29%	2.91%	0.00%	0.00%	0.43%	0.25%	0.00%	0.00%	70.12%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	1.24%	1.59%	0.00%	0.00%	96.90%	0.00%	0.00%	0.00%	0.27%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.48%	0.00%	0.00%	0.00%	0.52%	100%
		Yellowfin sole	4.92%	3.93%	0.00%	0.00%	82.72%	0.00%	0.00%	0.00%	8.43%	100%
	Red King Crab (# of Animals)	Pacific Cod	5.63%	1.44%	0.01%	0.00%	56.55%	3.61%	0.00%	0.00%	32.76%	100%
		Pollock/Atka/other	14.70%	39.11%	0.00%	0.00%	30.02%	6.56%	0.00%	0.00%	9.61%	100%
		Rockfish	92.40%	0.00%	0.00%	0.00%	7.60%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	1.05%	0.01%	0.00%	0.00%	98.46%	0.00%	0.00%	0.00%	0.49%	100%
		Turbot/sablefish/arrowtooth	0.05%	0.00%	0.00%	0.00%	54.82%	39.94%	0.00%	0.00%	5.19%	100%
		Yellowfin sole	4.21%	0.69%	0.00%	0.00%	85.68%	0.70%	0.00%	0.00%	8.72%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.60%	3.37%	0.00%	0.00%	57.59%	3.34%	0.00%	0.00%	35.10%	100%
		Pollock/Atka/other	16.96%	18.67%	0.00%	0.00%	10.79%	49.78%	0.00%	0.00%	3.80%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	4.66%	0.21%	0.00%	0.00%	94.57%	0.00%	0.00%	0.00%	0.57%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	34.25%	0.74%	0.00%	0.00%	54.24%	0.61%	0.00%	0.00%	10.16%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	3.46%	3.64%	0.28%	0.00%	33.74%	0.52%	0.09%	0.00%	58.27%	100%
		Pollock/Atka/other	15.72%	51.06%	0.00%	0.00%	11.53%	8.35%	0.00%	0.00%	13.34%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.28%	0.32%	0.00%	0.00%	99.33%	0.00%	0.00%	0.00%	0.07%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.06%	100%
		Yellowfin sole	12.31%	1.45%	0.00%	0.00%	79.77%	1.45%	0.00%	0.00%	5.02%	100%
	C. Opilio (# of Animals)	Pacific Cod	0.80%	1.95%	0.10%	0.00%	54.77%	0.27%	0.05%	0.00%	42.06%	100%
		Pollock/Atka/other	32.40%	35.15%	0.00%	0.00%	15.37%	6.91%	0.00%	0.00%	10.18%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.71%	0.48%	0.00%	0.00%	98.63%	0.00%	0.00%	0.00%	0.18%	100%
		Turbot/sablefish/arrowtooth	1.83%	0.06%	0.00%	0.00%	87.51%	1.66%	0.00%	0.00%	8.94%	100%
		Yellowfin sole	14.75%	2.01%	0.00%	0.00%	78.78%	0.62%	0.00%	0.00%	3.84%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	1.01%	1.02%	45.14%	0.38%	12.47%	0.47%	0.18%	0.44%	38.89%	100%
		Pollock/Atka/other	24.97%	10.84%	0.47%	0.00%	26.37%	11.29%	0.00%	0.00%	26.06%	100%
		Rockfish	0.20%	0.00%	0.47%	2.26%	97.07%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	1.37%	0.69%	0.00%	0.00%	97.60%	0.00%	0.00%	0.00%	0.33%	100%
		Turbot/sablefish/arrowtooth	0.57%	2.60%	46.98%	5.56%	30.75%	2.30%	0.00%	1.21%	10.03%	100%
		Yellowfin sole	13.93%	1.82%	0.00%	0.00%	77.96%	0.76%	0.00%	0.00%	5.53%	100%

Table 16: PSC Allocations based on historic percentage of PSC harvests by sector, 1998-2002.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.00%	98.85%	0.91%	0.04%	0.00%	0.20%	0.00%	0.00%	100%
		Other Species	0.00%	0.00%	93.19%	6.81%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	1.41%	0.22%	0.00%	0.00%	30.97%	0.00%	0.00%	0.00%	67.40%	100%
		Pollock/Atka/other	24.59%	5.91%	0.00%	0.00%	39.91%	0.00%	0.00%	0.00%	29.59%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.06%	100%
		Rocksole/Oth.flat/flat sole	0.75%	0.00%	0.00%	0.00%	99.21%	0.00%	0.00%	0.00%	0.04%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.80%	0.00%	0.00%	0.00%	0.20%	100%
		Yellowfin sole	6.56%	0.00%	0.00%	0.00%	93.15%	0.00%	0.00%	0.00%	0.29%	100%
	Herring (mt)	Pacific Cod	1.26%	0.00%	0.00%	0.00%	71.40%	0.00%	0.00%	0.00%	27.34%	100%
		Pollock/Atka/other	16.09%	0.75%	0.00%	0.00%	0.27%	0.00%	0.00%	0.00%	82.88%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.62%	0.00%	0.00%	0.00%	99.34%	0.00%	0.00%	0.00%	0.03%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	0.96%	0.00%	0.00%	0.00%	98.84%	0.00%	0.00%	0.00%	0.20%	100%
	Red King Crab (# of Animals)	Pacific Cod	6.14%	0.62%	0.00%	0.00%	61.26%	0.00%	0.00%	0.00%	31.98%	100%
		Pollock/Atka/other	3.98%	53.50%	0.00%	0.00%	21.77%	0.00%	0.00%	0.00%	20.75%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.42%	0.00%	0.00%	0.00%	99.57%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	5.51%	0.00%	0.00%	0.00%	93.04%	0.00%	0.00%	0.00%	1.45%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.16%	0.00%	0.00%	0.00%	69.53%	0.00%	0.00%	0.00%	30.30%	100%
		Pollock/Atka/other	38.18%	10.26%	0.00%	0.00%	42.48%	0.00%	0.00%	0.00%	9.07%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	3.36%	0.00%	0.00%	0.00%	96.62%	0.00%	0.00%	0.00%	0.02%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	16.59%	0.00%	0.00%	0.00%	82.62%	0.00%	0.00%	0.00%	0.79%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	2.13%	0.03%	0.00%	0.00%	39.34%	0.00%	0.00%	0.00%	58.50%	100%
		Pollock/Atka/other	15.60%	68.77%	0.00%	0.00%	11.47%	0.00%	0.00%	0.00%	4.16%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.05%	0.00%	0.00%	0.00%	99.95%	0.00%	0.00%	0.00%	0.00%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	4.40%	0.00%	0.00%	0.00%	94.90%	0.00%	0.00%	0.00%	0.70%	100%
	C. Opilio (# of Animals)	Pacific Cod	0.81%	0.35%	0.00%	0.00%	63.88%	0.00%	0.00%	0.00%	34.96%	100%
		Pollock/Atka/other	36.57%	28.19%	0.00%	0.00%	17.12%	0.00%	0.00%	0.00%	18.11%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.06%	100%
		Rocksole/Oth.flat/flat sole	0.93%	0.00%	0.00%	0.00%	99.06%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.97%	0.00%	0.00%	0.00%	0.03%	100%
		Yellowfin sole	4.47%	0.00%	0.00%	0.00%	94.72%	0.00%	0.00%	0.00%	0.81%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	0.74%	0.11%	46.93%	0.43%	16.21%	0.00%	0.12%	0.22%	35.24%	100%
		Pollock/Atka/other	24.31%	5.84%	1.13%	0.00%	39.46%	0.00%	0.00%	0.00%	29.25%	100%
		Rockfish	0.00%	0.00%	0.64%	0.52%	98.78%	0.00%	0.00%	0.00%	0.06%	100%
		Rocksole/Oth.flat/flat sole	0.75%	0.00%	0.00%	0.00%	99.21%	0.00%	0.00%	0.00%	0.04%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	52.22%	3.85%	41.71%	0.00%	0.00%	2.14%	0.08%	100%
		Yellowfin sole	6.56%	0.00%	0.00%	0.00%	93.15%	0.00%	0.00%	0.00%	0.29%	100%

Table 17: PSC Allocations based on historic percentage of PSC harvests by sector, 1998-2002, excluding 2000.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.00%	98.81%	0.95%	0.00%	0.00%	0.23%	0.00%	0.00%	100%
		Other Non-Trawl Total	0.00%	0.00%	90.63%	9.37%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	1.55%	0.27%	0.00%	0.00%	30.72%	0.00%	0.00%	0.00%	67.46%	100%
		Pollock/Atka/other	26.26%	7.59%	0.00%	0.00%	32.62%	0.00%	0.00%	0.00%	33.54%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.77%	0.00%	0.00%	0.00%	99.18%	0.00%	0.00%	0.00%	0.05%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.73%	0.00%	0.00%	0.00%	0.27%	100%
		Yellowfin sole	7.64%	0.00%	0.00%	0.00%	92.06%	0.00%	0.00%	0.00%	0.30%	100%
	Herring (mt)	Pacific Cod	0.01%	0.00%	0.00%	0.00%	71.87%	0.00%	0.00%	0.00%	28.11%	100%
		Pollock/Atka/other	16.13%	0.94%	0.00%	0.00%	0.34%	0.00%	0.00%	0.00%	82.59%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.66%	0.00%	0.00%	0.00%	99.33%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	1.00%	0.00%	0.00%	0.00%	98.78%	0.00%	0.00%	0.00%	0.22%	100%
	Red King Crab (# of Animals)	Pacific Cod	6.56%	0.68%	0.00%	0.00%	59.71%	0.00%	0.00%	0.00%	33.05%	100%
		Pollock/Atka/other	3.98%	53.50%	0.00%	0.00%	21.77%	0.00%	0.00%	0.00%	20.75%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.50%	0.00%	0.00%	0.00%	99.49%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	1.50%	0.00%	0.00%	0.00%	98.35%	0.00%	0.00%	0.00%	0.15%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.12%	0.00%	0.00%	0.00%	68.47%	0.00%	0.00%	0.00%	31.41%	100%
		Pollock/Atka/other	38.26%	10.33%	0.00%	0.00%	42.76%	0.00%	0.00%	0.00%	8.65%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	1.91%	0.00%	0.00%	0.00%	98.08%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	19.13%	0.00%	0.00%	0.00%	80.21%	0.00%	0.00%	0.00%	0.66%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	1.76%	0.03%	0.00%	0.00%	39.91%	0.00%	0.00%	0.00%	58.30%	100%
		Pollock/Atka/other	15.61%	70.59%	0.00%	0.00%	9.79%	0.00%	0.00%	0.00%	4.00%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.06%	0.00%	0.00%	0.00%	99.94%	0.00%	0.00%	0.00%	0.00%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	5.48%	0.00%	0.00%	0.00%	93.62%	0.00%	0.00%	0.00%	0.90%	100%
	C. Opilio (# of Animals)	Pacific Cod	0.25%	0.41%	0.00%	0.00%	63.49%	0.00%	0.00%	0.00%	35.85%	100%
		Pollock/Atka/other	36.91%	29.58%	0.00%	0.00%	16.86%	0.00%	0.00%	0.00%	16.65%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.99%	0.00%	0.00%	0.00%	99.01%	0.00%	0.00%	0.00%	0.00%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	99.97%	0.00%	0.00%	0.00%	0.03%	100%
		Yellowfin sole	5.93%	0.00%	0.00%	0.00%	92.95%	0.00%	0.00%	0.00%	1.11%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	0.82%	0.14%	45.95%	0.44%	16.35%	0.00%	0.14%	0.25%	35.91%	100%
		Pollock/Atka/other	26.00%	7.51%	0.98%	0.00%	32.30%	0.00%	0.00%	0.00%	33.21%	100%
		Rockfish	0.00%	0.00%	0.30%	0.40%	99.30%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.77%	0.00%	0.00%	0.00%	99.18%	0.00%	0.00%	0.00%	0.05%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	49.00%	5.17%	43.54%	0.00%	0.00%	2.17%	0.12%	100%
		Yellowfin sole	7.64%	0.00%	0.00%	0.00%	92.06%	0.00%	0.00%	0.00%	0.30%	100%

Table 18: PSC Allocations based on historic percentage of PSC harvests by sector, 2000-2002.

GEAR	Data	PSC Group	AFA 20	AFA 9	LGL-CP	LGL-CV	NON-AFA HT-CP	NON-AFA ST-FT-CP	POT-CP	POT-CV	TWL-CV	Total
LGL	Halibut Mortality (mt)	Pacific Cod	0.00%	0.00%	98.41%	1.33%	0.06%	0.00%	0.21%	0.00%	0.00%	100%
		Other Species	0.00%	0.00%	97.34%	2.66%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
TWL	Halibut Mortality (mt)	Pacific Cod	0.79%	0.00%	0.00%	0.00%	36.00%	0.00%	0.00%	0.00%	63.20%	100%
		Pollock/Atka/other	22.97%	0.00%	0.00%	0.00%	40.51%	0.00%	0.00%	0.00%	36.52%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	99.90%	0.00%	0.00%	0.00%	0.10%	100%
		Rocksole/Oth.flat/flat sole	0.33%	0.00%	0.00%	0.00%	99.60%	0.00%	0.00%	0.00%	0.06%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	1.50%	0.00%	0.00%	0.00%	98.43%	0.00%	0.00%	0.00%	0.07%	100%
	Herring (mt)	Pacific Cod	1.54%	0.00%	0.00%	0.00%	83.06%	0.00%	0.00%	0.00%	15.40%	100%
		Pollock/Atka/other	14.76%	0.00%	0.00%	0.00%	0.09%	0.00%	0.00%	0.00%	85.15%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.69%	0.00%	0.00%	0.00%	99.28%	0.00%	0.00%	0.00%	0.04%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	1.32%	0.00%	0.00%	0.00%	98.64%	0.00%	0.00%	0.00%	0.04%	100%
	Red King Crab (# of Animals)	Pacific Cod	7.70%	0.00%	0.00%	0.00%	59.18%	0.00%	0.00%	0.00%	33.12%	100%
		Pollock/Atka/other	40.80%	0.00%	0.00%	0.00%	59.20%	0.00%	0.00%	0.00%	0.00%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.09%	0.00%	0.00%	0.00%	99.89%	0.00%	0.00%	0.00%	0.02%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	5.83%	0.00%	0.00%	0.00%	92.46%	0.00%	0.00%	0.00%	1.71%	100%
	Bairdi Crab Zone 1 (# of Animals)	Pacific Cod	0.19%	0.00%	0.00%	0.00%	63.25%	0.00%	0.00%	0.00%	36.57%	100%
		Pollock/Atka/other	4.89%	0.00%	0.00%	0.00%	89.69%	0.00%	0.00%	0.00%	5.42%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Rocksole/Oth.flat/flat sole	3.01%	0.00%	0.00%	0.00%	96.96%	0.00%	0.00%	0.00%	0.03%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%
		Yellowfin sole	1.27%	0.00%	0.00%	0.00%	98.12%	0.00%	0.00%	0.00%	0.61%	100%
	Bairdi Crab Zone 2 (# of Animals)	Pacific Cod	2.42%	0.00%	0.00%	0.00%	42.66%	0.00%	0.00%	0.00%	54.92%	100%
		Pollock/Atka/other	48.34%	0.00%	0.00%	0.00%	44.29%	0.00%	0.00%	0.00%	7.37%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Rocksole/Oth.flat/flat sole	0.01%	0.00%	0.00%	0.00%	99.99%	0.00%	0.00%	0.00%	0.00%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	1.39%	0.00%	0.00%	0.00%	98.61%	0.00%	0.00%	0.00%	0.00%	100%
	C. Opilio (# of Animals)	Pacific Cod	1.68%	0.00%	0.00%	0.00%	71.04%	0.00%	0.00%	0.00%	27.27%	100%
		Pollock/Atka/other	41.09%	0.00%	0.00%	0.00%	25.75%	0.00%	0.00%	0.00%	33.16%	100%
		Rockfish	0.00%	0.00%	0.00%	0.00%	99.90%	0.00%	0.00%	0.00%	0.10%	100%
		Rocksole/Oth.flat/flat sole	0.20%	0.00%	0.00%	0.00%	99.79%	0.00%	0.00%	0.00%	0.01%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100%
		Yellowfin sole	2.56%	0.00%	0.00%	0.00%	97.32%	0.00%	0.00%	0.00%	0.12%	100%
LGL & TRW	Halibut Mortality (mt)	Pacific Cod	0.38%	0.00%	51.39%	0.69%	17.15%	0.00%	0.12%	0.22%	30.06%	100%
		Pollock/Atka/other	22.59%	0.00%	1.66%	0.00%	39.84%	0.00%	0.00%	0.00%	35.91%	100%
		Rockfish	0.00%	0.00%	0.75%	0.69%	98.46%	0.00%	0.00%	0.00%	0.10%	100%
		Rocksole/Oth.flat/flat sole	0.33%	0.00%	0.00%	0.00%	99.60%	0.00%	0.00%	0.00%	0.06%	100%
		Turbot/sablefish/arrowtooth	0.00%	0.00%	52.19%	1.26%	43.35%	0.00%	0.00%	3.20%	0.00%	100%
		Yellowfin sole	1.50%	0.00%	0.00%	0.00%	98.43%	0.00%	0.00%	0.00%	0.07%	100%

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October 1, 2003

Mr. Dennis Austin
Interim Chairman, NPFMC
605 W 4th Ste 306
Anchorage, AK 99501-2252

Re: C-4 (c) IR/IU: Finalize Alternatives for Amendment A

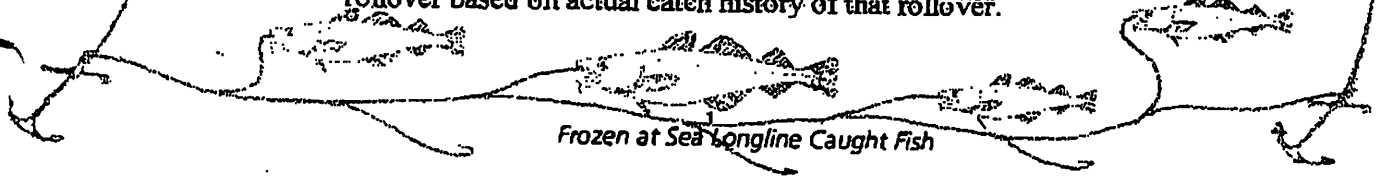
Mr. Chairman,

For the sectors that are not included under Amendment C of IR/IU, the most significant portion of Amendment A is the sector allocations of BSAI groundfish. In particular, Prowler Fisheries is particularly concerned with the allocation of BSAI p-cod. The CP hook-and-line has a considerable dependency on this resource based on historic catch. Previous IR/IU documents show that BSAI p-cod comprises 80% the wholesale value generated by the CP hook-and-line sector for all species and all areas (BSAI/GOA).

The construction of the present set of alternatives is awkward and unnecessarily complicated. They range from straight forward and comprehensive (Alternative 1) to the redundant and incomplete (Alternative 4). These alternatives should be re-structured. From a practical standpoint, the range of options (six sets of years) in Alternative 1 gives the Council a broad range of alternatives that captures catch history, i.e, use and dependency. The remaining alternatives (2, 3, and 4) appear to be designed with the goal of reducing the allocation of those sectors with actual catch history and dependency on the resource. In particular, Alternatives 2 & 4 could be eliminated.

The alternatives for the sector split for BSAI p-cod can be found in Issue 2: Sector Allocations (Component 6 through 9). As presently written these alternatives are summarized as follows:

1.) Allocation based on catch history from a set of years, i.e. normal Council procedure.
2.) Allocation based on apportionments in regulation (this would presumably A. 46 & A. 64) with an additional split of the CP trawl sector into AFA CP and non-AFA CP. This does not reflect catch history.
3.) Allocation based on apportionments in regulation (A. 46 & A. 64) with the following changes:
    a.) Adjust the fixed gear and trawl apportionments for trawl rollovers based on a set of years (Note: this does not include jig rollovers).
    b.) Trawl rollovers to the fixed gear sector are to be apportioned as in regulation (95% to CP H&L, 5% pot) as opposed to apportionment of rollover based on actual catch history of that rollover.



Frozen at Sea Longline Caught Fish

4.) Allocation is based as follows:

a.) Fixed gear: Allocation based on apportionments in A.77 (which are unchanged from A. 64)

b.) Trawl gear: Allocation between AFA and non-AFA (unspecified as to CP, CV, or both) could be based on catch history or for the trawl CP, use the methodology in #2 above. Nothing is specified for the basis of the trawl sector split or the CV trawl split.

Discussion of BSAI P-Cod Alternatives

1.) Alternative 1: Allocation based on catch history over a range of years. This is the method that is used with every other target species in this document. Catch history has been the basis of every Council allocation decision. While at times the Council has deviated slightly from using catch history verbatim, the basis of the Council decision was always been catch history. This is readily evident in previous all gear BSAI p-cod allocation decisions in Amendment 24 and Amendment 46. Amendment 46 revised the all gear BSAI cod allocation by increasing the fixed gear portion of the harvest based on previous year's rollovers from the trawl fishery. Attached is a shortened history of BSAI cod allocations that I have previously supplied the Council for reference.

2.) Alternative 2: Allocation based on current apportionment in regulation (presumably A. 46 and A. 64) with the additional split of the trawl CP sector into AFA (5.2%) and non-AFA (18.3%). This alternative references existing apportionments in regulation. These would be Amendment 46 and Amendment 64. Amendment 77 is not in regulation but represents no change in allocation from Amendment 64. This alternative also includes a method to further split the CP trawl allocation. Amendment 46 provides for a 47% trawl allocation which is split 50/50 with CP & CV so that the overall CP trawl allocation is 23.5%. This alternative further splits that allocation (18.3% non-AFA CP trawl+ 5.2% AFA CP trawl=23.5% CP trawl).

This alternative is based on allocation rather than catch history. This alternative is based what sectors were allowed to harvest but did not (due to PSC caps or lack of effort). An allocation is the harvest opportunity given to a sector. Catch history is actual harvest, i.e. where the rubber meets the road There is a large discrepancy between the catch history and allocations principally due to rollovers from the trawl sector due to halibut PSC. There have also been large rollovers from the jig and pot sector to the CP H&L sector. The CP H&L sector has proven to be the only sector capable of harvesting unused TAC late in the year and keep within PSC and bycatch limitations.

This alternative only reflects current regulation (with one addition) and does not represent any catch history or current harvest practices.

3.) Alternative 3: Allocation based on current apportionments in regulation (A. 46 and 77) but adjusted by the average rollovers from the trawl to fixed gear sector. This alternative is a blend of allocation and some catch history. It includes: the allocations in current regulations (as in Alternative 2) with some modifications of those

allocations based on catch history (trawl rollovers to fixed gear) and some modifications to those allocations based on apportionments (apportionment of trawl rollover within fixed gear). This alternative is silent on the disposition of the jig rollover. Similar to the trawl rollover, the jig rollover is rolled over to the fixed gear sector and apportioned within the fixed gear sector (Amendment 24, 46, and 64).

The rollovers in the fixed gear sector from the trawl sector will not be split based on how they were caught but rather on current regulation (95% to CP H&L, 5% to pot). The trawl CP sector will either be as one sector or split as above less the amount of rollovers from the appropriate sector

4.) Alternative 4: Allocation in the fixed gear sector is based on Amendment 77. This alternative only deals with some sectors and is incomplete. Additionally, this alternative is redundant to Alternative 2 & 3 since the allocations in A. 77 are the same as in current regulation. The regulations for A. 77 are not as yet approved. This alternative is based again on allocation and not history so it does not necessarily reflect historic use and dependency.

Recommendation:

1.) **Retain Alternative 1.**
2.) **Delete Alternative 2. Alternatives should be based on actual catch history. Historic use and dependency come from catch history not necessarily from an allocation, particularly if the allocation remains uncaught on a consistent. Delete Alternative 2 as it is based on allocation rather than actual catch history. Integral elements (allocations) of Alternative 2 are contained in Alternative 3.**
3.) **Retain Alternative 3. This alternative is a blend of allocation and catch history. It includes: the allocations in regulations, some modifications (rollovers) of those allocations based on catch history and some modifications (rollovers) to those allocations based on apportionments. Clarification is needed on the disposition of the jig rollovers.**
4.) **Delete Alternative 4 as it redundant and incomplete.**

Thank you for your consideration,

Gerry Merrigan

Prowler Fisheries

History of BSAI Pacific Cod Allocations

I.) Transition from the Foreign Fishery to Joint Venture to the Domestic Fishery

In order to fulfill the objectives of the Magnuson Act, there was a transition in the BSAI cod fishery from the foreign fleet to the joint venture fleet and finally to the domestic fleet. The foreign cod fishery (longline and trawl) was phased out by 1988. The joint venture trawl cod fishery peaked in 1988 (110,000 mt) and was phased out by 1990 (8,000mt). The resulting catch by sector for the time period after phase-out of the foreign fishery and prior to Amendment 24 is below:

YEAR	LONGLINE	POT	FIXED	TRAWL	JIG
1990	47,598 (28%)	1,386 (1%)	48,984 (29%)	118,336 (71%)	139 (0.08%)
1991	79,703 (37%)	6,673 (3%)	86,376 (40%)	131,688 (60%)	No report
1992	101,182 (49%)	13,680 (7%)	114,862 (56%)	90,272 (44%)	117 (0.06%)
1993	65,688 (39%)	2,098 (1%)	67,786 (40%)	99,051 (60%)	35 (0.02%)
1990-92			42%	58%	
1991-93			46%	54%	

Table 1: Annual distribution of BSAI Pacific cod catch by sector in mt, 1990-93 (From Appendix A, Table A4, Amendment 24 EA/RIR/IRFA).

The increase in pot and longline harvest was in part due to cod trawl closures beginning in 1989 due to halibut PSC limits. There was no allocation of cod between gear types nor were there rollovers between sectors. The primary management tool was apportionment of PSC limits by season. Separate halibut PSC allowances were determined annually for the cod longline and trawl fisheries. Cod was being caught by longline, pot, jig, and trawl (in both directed and incidental) fisheries.

There were halibut PSC limit induced closures in the cod trawl fishery from 1990-92. By 1992, the fixed gear portion of the cod harvest was 56% and the trawl portion was 44%. In 1992, the Council was requested to look at establishing allocations in BSAI p-cod.

II.) Amendment 24: BSAI Pacific Cod Allocation by TAC and Season: Final action, June 1993. Implemented February, 1994.

Problem Statement: "*The BSAI p-cod fishery, through overcapitalized open access management, exhibits numerous problems which include: compressed fishing seasons, periods of high bycatch, waste of resource, gear conflicts and an overall reduction in benefit from the fishery.* ***The objective of this amendment is to provide a bridge to comprehensive rationalization.*** *It should provide a measure of stability to the fishery while allowing various components of the industry to optimize their utilization of the resource.*" [emphasis added].

Amendment 24 included:

1.) **Allocation** of BSAI p-cod TAC among sectors: 44% fixed gear/54% trawl/2% jig (allocation to run through 1996).
2.) **Seasonal apportionment** of BSAI p-cod TAC.
3.) **Rollovers**, i.e. reallocation from one sector to another in order to fully harvest the allocation. Reallocation could go from trawl to fixed gear and visa versa as needed.

Allocation: The allocation was based on recent catch history. The exception was the substantial increase to jig gear in order to increase participation of small shore based vessels. The recollection of most participants was that the jig allocation came equally from both fixed gear and trawl gear. However, according to the amendment summary in the DPSEIS (Appendix A) the allocation was based *"...on approximately the average percent of Pacific cod taken with these gear type in 1991-93."*

If the DPSEIS summary is correct, then the 2% jig allocation came predominately from fixed gear (and predominately from longline). The 1991-93 catch history was 46% fixed/54% trawl and the resulting allocation was 44% fixed gear/54% trawl/2% jig. For the same time period, longline comprised 92% of the fixed gear harvest. However, institutional memory indicates that the jig allocation came from fixed and trawl gear equally. In either case, the important distinction is that when the Council chose to allocate to a new fishery beyond its catch history, that allocation was done when all gear is on the table (and not a subset of gear types).

Following Amendment 24, the fixed gear proportion of catch increased primarily due to rollovers from jig and trawl (due to halibut PSC constraints) as well as an increase in pot effort. The Council was scheduled to revisit the allocation prior to December 31, 1996. The resulting catch by sector for the time period after Amendment 24 and prior to Amendment 46 is below.

YEAR	LONGLINE	POT	FIXED	TRAWL	JIG	TOTAL ROLL-OVERS TO FIXED GEAR
1994	85,573 (44.2%)	8,184 (4.2%)	93,757 (48.4%)	99,313 (51.2%)	730 (0.4%)	
1995	102,600 (41.9%)	20,299 (8.3%)	122,899 (50.2%)	121,530 (49.6%)	599 (0.25%	11,800
1996	94,701 (39.3%)	32,617 (13.6%)	127,318 (52.9%)	113,089 (47%)	267 (0.1%)	19,400
1994-95			49.3%	50.4%		
1994-96			50.5%	49.3%		

Table 2: Annual distribution of BSAI Pacific cod catch by sector in mt, 1994-96. From NMFS website: Groundfish Catch Statistics and Information Bulletins

III.) Amendment 46: Pacific Cod Allocation (11). Final action, June 1996. Implemented, January 1997.

Problem Statement: *"The BSAI p-cod fishery continues to manifest many of the problems that led the NPFMC to adopt Amendment 24 in 1993. These problems include compressed fishing seasons, periods of high bycatch, waste of resource, and new entrants competing for the resource due to crossovers allowed under the NPFMC's Moratorium Program. Since the apportionment of BSAI cod TAC between fixed gear, jig, and trawl gear was implemented on Jan. 1, 1994, when Amendment 24 went into effect, the trawl, jig, and fixed gear components have harvested the TAC with demonstrably differing levels of PSC mortality, discards, and bycatch of non-target species. Management measures are needed to ensure that the cod TAC is harvested in a manner which reduces discards in the target fisheries, reduces PSC mortality, reduces non-target bycatch of cod and other groundfish, takes into account the social and economic aspects of the variable allocations and addresses the impacts of the fishery on the habitat. In addition, the amendment will continue to promote stability in the fishery as the NPFMC continues on the path towards comprehensive rationalization."* [emphasis added]

Amendment 46 included:

1.) Allocation: The allocation between sectors was amended to 51% fixed/ 47% trawl/2% jig (formerly 44% fixed/54% trawl/2% jig). Within the trawl sector, a 50/50 split between CV and CP was adopted.
2.) Rollovers: All unused jig quota was to be reallocated to fixed gear on September 15 of each year. In a fishing year, if trawl, pot, and H&L gear were unable to catch their allocations, the projected portion to be left unharvested would be reallocated to other gear types as needed.
3.) Halibut PSC Mortality Caps: The trawl halibut PSC mortality cap for p-cod was established to be no greater than 1,600 mt. The H&L halibut PSC mortality cap for p-cod was established to be no greater than 900 mt.
4.) Review: There was no sunset provision but the Council was scheduled to review this agreement in four years following the date of implementation. [Note: this review should have then occurred on January 1, 2001 but did not.]

Allocation: The allocation percentages came from an industry negotiation and were subsequently adopted by the Council. However, the basis for the allocation ranges considered in the alternatives largely revolved around catch history and differing halibut PSC mortality by each sector. There was a specific focus on reducing PSC mortality, reducing impacts on habitat, and reducing cod discards by the different gear sectors. The exception again was the jig fishery where the allocation was roughly eight times the recent catch history.

The analysis made several assumptions concerning PSC use by sector and the resulting limitation on cod harvest by that sector. For example, the analysis concluded under a 49% fixed gear/ 49% trawl split, the longline sector would need a minimum of 912 mt of halibut PSC, and the trawl sector would need a minimum of 1,749 mt of PSC to cover cod catch in the directed (target) cod fisheries. The Council adopted a 51% fixed gear/47% trawl split (and 2% jig) with 900 mt halibut PSC cap on longline and a 1600 mt halibut PSC cap on trawl.

If the assumptions in the analysis held true for halibut PSC use in the trawl fishery, there should have been sufficient halibut PSC to prosecute the trawl cod fisheries (directed and incidental) and catch the allocation (47%) without having any rollovers. The analysis stated that if the current 54% trawl/44% fixed gear split continued (as in Amendment 24), there would be an annual rollover to fixed gear of 12,000 mt/yr from trawl. It was anticipated that the reallocation would minimize the amount of rollovers.

However, despite the reallocation in Amendment 46, there has still been an average rollover from trawl to fixed gear of 11,416 mt annually (1997-02). The primary reason for this rollover has been the use of halibut PSC in the trawl fishery. The longline fishery (fixed gear) has been able to lower its PSC use and catch its allocation plus rollovers without exceeding the halibut PSC cap. The resulting catch by sector for the time period after Amendment 46 to present is below:

YEAR	LONGLINE	POT	FIXED	TRAWL	JIG	TOTAL ROLL-OVERS TO FIXED GEAR
1997	124,233 (48.2%)	22,047 (8.6%)	146,280 (56.8%)	111,212 (43.2%)	173 (0.07%)	15,000
1998	98,094 (50.8%)	13,657 (7.1%)	111,751 (57.8%)	81,308 (42.1%)	192 (0.1%)	11,500
1999	78,852 (48.6%)	16,150 (9.9%)	95,002 (58.5%)	67,190 (41.4%)	169 (0.1%)	17,800
2000	85,106 (48%)	18,783 (10.6%)	103,889 (58.6%)	73,476 (41.4%)	71 (0.04%)	12,000
2001	96,874 (59.0%)	16,507 (10.1%)	113,381 (69.1%)	50,752 (30.9%)	71 (0.04%)	27,000
2002	89,802 (49.0%)	15,054 (8.2%)	104,856 (57.2%)	78,178 (42.7%)	166 (0.09%)	15,400
1997-02			59.6%	40.3%		
1997-99			57.7%	42.2%		
2000-02			61.6%	38.3%		

Table 3: Annual distribution of BSAI p-cod catch by sector in mt (1997-02). From NMFS website: Groundfish Catch Statistics and Information Bulletins.

Amendment 46 (and allocation split) was scheduled for review in January 1, 2001, but this did not occur. The next action by the Council toward comprehensive rationalization was Amendment 64.

IV.) Amendment 64: BSAI Fixed Gear Pacific Cod Allocations: Final action, October 1999. Implemented July, 2000. Sunset date December 31, 2003.

Problem Statement: *"The hook-and-line and pot fisheries for p-cod in the BSAI are fully utilized. Competition for this resource has increased for a variety of reasons, including increased market value of cod products and a declining ABC/TAC. Longline and pot fishermen who have made significant long-term investments, have long catch histories, and are significantly dependent on the BSAI cod fisheries need protection from others who have little or limited catch history and wish to increase their participation in the fishery. This requires prompt action to promote stability in the BSAI fixed gear cod fishery until comprehensive rationalization is completed."* [emphasis added].

Amendment 64 included:

1.) Allocation: The Council adopted an allocation of 80% CP H&L, 0.3% CV H&L, 18.3% pot, 1.4% CV <60'. The allocation was roughly based on 1995-98 with some changes (pot and CV<60'). The CV < 60' sector received an allocation four times larger than its catch history along with the additional provision of being able to initially harvest off the >60' CV pot and H&L allocation before accruing harvest to the <60' quota.

2.) Rollovers: Any unused CV H&L and CV <60' are to roll to CP H&L in September. Any jig and trawl rollovers will be apportioned to CP H&L and pot in the proportion of actual harvest of rollovers in 1996-98. [Note: this is the 95/5].

3.) Bycatch of p-cod in other fixed gear fisheries comes off the top of the overall fixed gear allocation before allocations before the directed fisheries are set.

4.) Sunset December 31, 2003.

VI.) Amendment 67: BSAI P-Cod Species and Gear Endorsements: Final action in April 2000. Implemented in January 2002. Problem Statement: Same as Amendment 64.

This amendment is consistent with the NPFMC goal toward comprehensive rationalization. Amendment 67 added an endorsement to the LLP license based on minimum landing requirements for all freezer longliners and pot and longline CVs > 60'. Catcher vessels under 60' were exempted from the minimum landing requirements. This amendment limited the participants in the BSAI fixed gear cod fisheries to those vessels with recency and catch history.

YEAR	CP H&L	CV H&L (BOTH < & > 60')	POT (< & > 60')	CV<60' ONLY	JIG ROLL-OVERS	TRAWL ROLL-OVERS
1995	96,546 (81.6%)	797 (0.7%)	20,980 (17.8%)	Conf.	4,000	10,000
1996	91,113 (74.1%)	187 (0.15%)	31,727 (25.8%)	172 (0.14%)	4,400	15,000
1997	120,068 (84.3%)	206 (0.14%)	22,101 (15.5%)	Conf.	5,000	10,000
1998	94,879 (88.2%)	17 (0.02%)	12,634 (11.8%)	Conf.	3,500	8,000
1999	77,121 (83.2%)	217 (0.23%)	15,380 (16.6%)	174 (0.19%)	2,800	9,000
2000	81,494 (80.0%)	358 (0.36%)	19,963 (19.6%)	564 (0.55%)	3,000	9,000
2001	94,463 (83.5%)	613 (0.54%)	18,055 (16.0%)	1,046 (0.92%)	3,000	24,000
2002	89,399 (84.3%)	404 (0.4%)	14,878 (14.1%)	1,423 (1.3%)	3,400	8,500
1995-99	82.3%	0.25%	17.5%	Conf.		
2000-02	82.6%	0.43%	16.6%	0.92%		

Table 4: BSAI fixed gear cod catch and rollovers in directed cod fisheries in mt, 1995-02. Catch includes reallocated quota. Does not include incidental catch or discards (except for 2002). From Amendment 77 EA/RIR/IRFA, Tables 3.3, 3.26, and 3.27.

Groundfish Forum

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October 1, 2003

Mr. Dennis Austin
Interim Chairman
North Pacific Fisheries Management Council
605 W. 4th Ste 306
Anchorage, AK 99501-2252

Re: Agenda Item C-4: IR/IU

Dear Chairman Austin,

Groundfish Forum represents 15 'Head and Gut' (H/G) Non-AFA trawl catcher processors, which are the sector most impacted by passage of Amendment 79 (the groundfish retention standard, or GRS) and potential passage of Amendments 80a and 80b (BSAI sector allocations and formation of coops, respectively). We are writing to comment on the necessary connection between these Amendments.

All of these programs were initially proposed as an alternative to full retention of yellowfin sole and rock sole (IRIU, Amendment 49) for the H/G fleet. The Council recognized that full retention of these species was not reasonable, and delayed implementation of the requirement; the National Marine Fisheries Service, with agreement of the Secretary of Commerce, repealed that portion of Amendment 49 in May of this year. The reason for the repeal is that the requirement was not 'practicable,' as intended in the Sustainable Fisheries Act. (Per Representative Don Young, "'Practicable' requires an analysis of the cost of imposing a management action; the Congress does not intend...to impose costs on fishermen and processors that cannot reasonably be met."). In other words, the benefit from the action could not be shown to outweigh the costs.

While Groundfish Forum agrees that the original mandate of Amendment 49 was not implementable under National Standards 7 and 9 (letter from NMFS to NPFMC, May 29, 2003), we firmly support the establishment of a reasonable groundfish retention standard in tandem with rationalization of the BSAI multi-species fisheries. Our sector has already achieved significant improvements in retention, and this is a realistic means to continue those improvements and so meet the public policy concerns regarding discards. By providing both the incentive (the retention standard) and the tools (rationalization), the Council will create a situation where vessels are able to retain more fish without incurring unreasonable economic hardship.

As we have stated before, the H/G fleet has shown significant improvement in retention rates (from an average of 58.8 percent in 1995, to an average of 75.1 percent in 2001: Amendment 79 EA/RIR/IRFA, page 18). Some vessels have improved to the extent that they will already meet the first stage of the retention standard in Amendment 79. They have reached this level using gear modifications, factory improvements, market development and more sophisticated fishing techniques.

Our concern is that the Council may decide to allow implementation of the phased-in groundfish retention standard *without* rationalization of the BSAI multi-species fisheries. Using current retention rates as a benchmark for further improvements essentially turns the 'ceiling' reached through serious and continued refinements into the 'floor' from which vessels must continue to improve. There are few avenues left to explore while maintaining an economically viable fishery, and even the current high level of retention can be affected by market changes, changes in average fish size, etc, over which the fishermen have no control.

The final step of Amendment 79 (85% retention) actually goes beyond what would have been imposed by Amendment 49 (Am. 79 EA/RIR/IRFA page xi). This aspect of Amendment 49 has already been disapproved by NMFS, and the addition of new costs for monitoring the GRS (flow scales and increased observer coverage) is clearly beyond the bounds of what is practicable.

The EA/RIR/IRFA for Amendment 79 (May, 2003) reports that purchase and installation of a flow scale may cost up to $145,000 per vessel with an additional $1,500 to $2,000 per year in maintenance costs (possibly higher given that these scales will be subject to more sand, mud, etc than most of those currently in use). Further, addition of a second observer will cost around $77,000 per vessel per year, on an ongoing basis. Thus, in the first year of implementation, Amendment 79 may cost more than $220,000 per vessel. This cost will be incurred even by vessels which already meet the first step of the retention standard (Amendment 79 EA/RIR/IRFA, page 46). In our opinion this expense cannot be justified in the current 'race for fish' scenario.

However, if our sector is rationalized and given the ability to form coops, it is provided with tools which can both decrease operating expenses and, potentially, increase the value of the fish harvested. To the extent that these benefits counterbalance the costs incurred, the implementation of Amendment 79 becomes more practicable. In this way, rationalization is the key solution to meeting the public policy goal of increased retention.

The Council recognized this dynamic when it stated its intent to link the groundfish retention standard (then Amendment C) with BSAI rationalization (then Amendment A) in April of 2003. The IRIU committee also voiced this sentiment when it stated that 'implementation of Amendment C will be problematic without implementation of Amendment A' (March 2003). However, at the June 2003 Council meeting, the Council passed the retention standard without tying implementation of it to rationalization of the H/G sector. We believe that this undermines the ability of our fleet to meet the requirement, and could bring the approval of Amendment 79 into question.

In short, we strongly encourage the Council to prioritize rationalization of the BSAI multi-species fisheries for the H&G fleet, and to link this process to implementation of the groundfish retention standard. Taken together, the programs can result in real improvement in groundfish retention. The retention standard alone, without the tools with which to meet it, simply cannot be justified.

Sincerely,

Ed Luttrell
Executive Director

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM C-4 IR/IU

	NAME (PLEASE PRINT)	AFFILIATION
1	DAVE WOOD	US SEAFOODS
2	JOHN HENDERSCHEDT	PREMIER PACIFIC SEAFOODS
3	Susan Robinson	Fishermens Finest
4	GERRY MERRIGAN	PROWLER FISHERIES
5	Donna Parker	[redacted] HSCC
6	Erik Olson & Larry Cotter	BSFUC / MFCUA
7	BRENT PAINE	UCB
8	Paul MacGregor	At-Sea Processors Assn.
9	ED LUTTRELL/LORI SWANSON	GFF
10	John Jacobs	American Seafoods
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

C-4
Gerry Merrigan

Amendment 80A: Comparison of Component 9.1 and 9.2 for BSAI Pacific Cod

~~1.) Component 9.1 represents a sector split based on catch history over a range of years. There are option for defining annual catch percentage~~

SECTOR	9.2:	9.1: 1995-02 TOTAL CATCH/TAC (TABLE 2)	1995-02 TOTAL CATCH/CATCH	9.1: 1998-02 TOTAL CATCH/TAC (TABLE 4)	1998-02 TOTAL CATCH/CATCH
Jig	2%	0.1%	0.1%	0.08%	0.1%
CV Trawl	23.5%	20.92%	22.1%	19.4%	20.5%
AFA CP Trawl	5.2%	3.46% or 5.35%	3.7% or 6%	3.22% or 4.14%	3.0% or 3.8%
Non-AFA CP Trawl	18.3%	14.22%	14.3%	15.27%	15.6%
CP H&L	40.8%	46.5%	47.6%	50.83%	50.7%
CV H&L	0.153%	0.29%	0.3%	0.2%	0.3%
CP Pot	1.683%	1.84%	2.0%	1.74%	1.7%
CV Pot	7.65%	7.32%	7.5%	6.99%	7.4%
<60' CV Pot/H&L	0.714%	confidential	confidential	confidential	confidential (99-02 = 0.38%)

DID NOT TESTIFY

7 October 2003

Madam Chair Stephanie Madsen
North Pacific Fisheries Management Council
605 West 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

Re: IRIU Amendment 79: Groundfish Retention Standard

Dear Madam Chair Madsen:

I am encouraged by the progress made by the Council and NMFS to implement IRIU Amendment 79 to address unacceptable discard levels in the Bering Sea. Implementing the GRS phased-in provisions is an important step toward reaping the myriad ecological benefits that this program may provide now and in future years.

Authors of the Magnuson Stevens Act reauthorization bill envisioned the potential ecological and social benefits of discard reductions in 1996. Reducing discards was an especially high priority for Senator Ted Stevens. *"We have passed a bill to try to **eliminate** waste in the fisheries off our shores. If these mechanisms through compromise do not work, I intend to be back with a stronger bill. The waste has become just unacceptable, totally unacceptable"* (Congressional Record, Proceedings and Debates September 19, 1996 CR S10933). Representative Young, who introduced the bill to reauthorize the Act in the House, echoed this concern, when he said that "*bycatch is one of the most pressing problems facing the continuation of sustainable fisheries*" and that the high levels of bycatch and discard are "*clearly unacceptable*".

National Standard 9 in the MSA provides:
"[c] onservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch." With further subsections in the bill, Congress "emphasize[d] the reduction of economic discards, or bycatch which fishermen choose not to retain," with the goal of "actual significant reduction in the total amount of economic discards in North Pacific Fisheries" (MSA section 313 (f)).

Ecological Benefits of IRIU GRS

The North Pacific remains one of the most biologically productive oceans in the world, … supporting nearly 500 species of fish and a diversity of fish, sea mammals and seabirds…" (NRC 1996). Every year, fisheries in the United States discard vast numbers of invertebrates, fish, sea turtles, sea birds, and marine mammals that were caught unintentionally (Alverson, 1998).

It is clear that bycatch significantly impacts individual species (Morgan and Chuenpagdee 2003), whether the bycatch is killed and retained or discarded dead. In the United States in 2001, the federal government proposed listing the sawtooth sawfish as

endangered under the Endangered Species Act solely because of bycatch mortality (Federal Register 2001). Other species imperiled as a result of bycatch include the barndoor skate in the North Atlantic Ocean and the leatherback sea turtle in the Pacific (Morgan and Chuanpagnee 2003). Beyond these more conspicuous species, lesser known species are also at risk under current bycatch and discard practices. "Some species – even uncommon ones – are so important in their ecosystem that they merit special attention in conservation efforts. Removal of these species might not even be noticed, but would have profound effects on the composition, structure, and functioning of their entire (biological) community" (Norse, 1993).

For example, scientists have demonstrated that harvesting and discarding juvenile fish can turn what appears to be a sustainable fishing rate into an unsustainable one (Myers and Mertz, 1998). A specific illustration of this is that the extinction of the common skate in the Irish Sea was caused by fisheries that took too many juvenile skates as bycatch (Brander, 1981).

In Alaska, significant efforts have been made to reduce discards in some fisheries, particularly in the Bering Sea pollock fishery in recent years. However, discards in other fisheries in the Bering Sea remain extremely high, with many vessels retaining less than 60% of fish harvested in some sectors. Discards resulting from Bering Sea fisheries likely has numerous negative effects on the marine ecosystem. The trail of dead and dying fish and invertebrates discarded from vessels at sea attracts seabirds, marine mammals and fish to the discard path where they may become susceptible to predation, vulnerable to capture by fishing gear, and are likely to experience disruption to their migration routes and social behavior. In the water column and on the seafloor, discards may lead to disruption in predator-prey relationships among managed and non-managed fish, invertebrates, and contribute to the growth of scavenger species in seafloor communities. As described for other areas cited above, the counted and unaccounted mortality of a multitude of species caught and discarded may lead to widespread ecological disruption in the marine ecosystem. Trophic pathways of energy transfer, or flow among organisms in the Bering Sea food web are likely to be disrupted in areas experiencing high levels of discards.

Net benefit to the Nation

Implementation of the GRS will promote better stewardship of fisheries resources by reducing waste leading in increased net benefit of public resources to the Nation. These benefits include economic and address other social values such as subsistence philosophies. In the words of Siberian Yupik Annie Alowa of Savoonga (St. Lawrence Island), "The people who make bycatch should think about what they are wasting is what we need to catch for our food." Clear benefits of leaving more live fish in the water for growth and future harvest as well as increased use of each fish caught will be derived under GRS. The econonomic, sociological and other positive implications of better stewardship under the GRS cannot be overstated.

Cost vs. ecological benefits

As an IRIU technical committee, I have observed the emphasis of cost of flow scales and other compliance requirements escalate in each iteration of the IRIU analyses. It appears that although there may be costs involved in implementing this program, Congress was aware that cost would be incurred in improving use of the Nation's resources and most vessels in the fleet already have much of the equipment and observer coverage required to comply with this provision for monitoring.

I am empathetic to the concerns of industry that the costs of gearing up in the first two years would result in little improvement in fish retention for some vessels that have already reported marked improvements in their retention rates. However, the multiple ecological benefits of implementing this program to reduce discards in the vessels which lag sorely behind most of the fleet, while obtaining more accurate data on actual discards through improved monitoring, and increasing utilization of each fish seems a reasonable and prudent action for achieving conservation and other goals.

Sincerely,

Michelle Ridgway
NPFMC AP Member, Conservation Representative
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Juneau, Alaska 99801

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