

# North Pacific Fishery Management Council

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August 5, 2002

Dear Senators and Representatives:

As part of the Consolidated Appropriations Act of 2001 (Pub. L. No. 106-554), Congress directed the Council to examine fisheries under its jurisdiction to determine whether rationalization is needed and provide an analysis of several specific approaches to rationalization. The specific legislative language is:

*The North Pacific Fishery Management Council shall examine the fisheries under its jurisdiction, particularly the Gulf of Alaska groundfish and Bering Sea crab fisheries, to determine whether rationalization is needed. In particular, the North Pacific Council shall analyze individual fishing quotas, processor quotas, cooperatives, and quotas held by communities. The analysis should include an economic analysis of the impact of all options on communities and processors as well as the fishing fleets. The North Pacific Council shall present its analysis to the appropriations and authorizing committees of the Senate and House of Representatives in a timely manner.*

This letter, and attachments, are intended to provide you with that analysis for the Bering Sea and Aleutian Islands (BSAI) crab fisheries, and inform you of our Council's recent actions in this regard. The Council recently completed an analysis of rationalization alternatives for the BSAI crab fisheries as requested by Congress. Relying on this analysis, the Council has concluded that these fisheries, their participants, and dependent communities would benefit from rationalization. Rationalization will improve economic conditions substantially, for all sectors of the crab industry. Community concerns and the need to provide for economic protections for hired crew will be addressed. Safety in the fisheries will be enhanced. Biological benefits will also be realized. At its June 2002 meeting, the Council, by a unanimous 11-0 vote, identified a specific rationalization program as its preferred alternative for rationalization of the BSAI fisheries. This vote followed three years of meetings and discussion by industry sectors involved in these fisheries, two years of discussion and development by the Council and its industry Advisory Panel, and nearly two years of detailed analyses by Council staff, with assistance from NMFS, ADF&G, and independent economists and fisheries consultants.

The preferred alternative, a "three-pie voluntary cooperative program", is a carefully crafted program that balances the interests of several identifiable groups that depend on these fisheries. Allocations of harvest shares would be made to harvesters, communities, and captains. Processors would be allocated processing shares. Designated regions would be allocated landings and processing activity to preserve their historic interests in the fisheries. Harvesters would be permitted to form cooperatives to realize efficiencies through fleet coordination. The novelty of the program has compelled the Council to include several safeguards into the program, including a binding arbitration program for the resolution of price disputes and extensive data collection and review programs to assess the success of the rationalization program. These safeguards, together with the Council's continuing development of the program through a series of ongoing amendments and clarifications, demonstrate the Council's commitment to a fair and equitable rationalization program, which will protect the interests of those that depend on the BSAI crab fisheries.

I have enclosed the Council's report summarizing the preferred rationalization alternative, as well as a complete copy of the detailed analyses. I have included extra copies of the summary document for your convenience. I believe our summary report and the detailed analyses demonstrate that the Council has thoroughly assessed the impacts of rationalization on these fisheries, their participants, and dependent communities. We believe that the rationalization program will benefit all of those groups and presents a significant opportunity to improve biological and economic conditions and safety in these fisheries. Implementation of this program would follow its final approval through the Environmental Impact Statement (EIS) currently being prepared for the crab FMP, which we expect to be completed for Council action early next year. Congressional authorization for this program would, of course, also be necessary.

This program is certainly not without its controversy. The adoption by the Council of processing quota shares as a fundamental part of the program is probably the most controversial aspect of the program. However, the Council believes, as reflected in its unanimous vote, that the crab fisheries in the Bering Sea/Aleutian Islands require this innovative, comprehensive management approach to adequately recognize and protect the interests of all participants. It recognizes all components of the fishery as a balanced, inextricably linked system, rather than individual, competing components. It may not be the appropriate model for other fisheries in the Nation, or even for other fisheries in the North Pacific, and is not intended to be a template for other fisheries. We do believe it is the appropriate management approach for this fishery, and we respectfully submit that Congress should allow for such regionally tailored approaches in the management process. All Councils need such flexibility as we consider development of rationalization programs for other fisheries, for the benefit of all user groups and to sustain our precious fisheries resources for the Nation.

I hope the enclosed information is useful to the United States Congress as you consider reauthorization of the Magnuson-Stevens Act, or consider other legislation affecting our fisheries. Please contact our Council, through the office of the Executive Director, if you require further information.

Sincerely,

A handwritten signature in black ink, appearing to read "David Benton". The signature is fluid and cursive, with a long horizontal stroke at the end.

David Benton  
Chairman

## **EXECUTIVE SUMMARY**

### **Bering Sea and Aleutian Islands Crab Rationalization Program**

In recent years, substantial investments of participants in the Bering Sea/Aleutian Islands (BSAI) crab fisheries, together with stock declines, have resulted in a race for fish, complicating stock management and causing economic hardship. For several years, the North Pacific Fishery Management Council (the Council) has worked with participants to address these problems through series of working groups and management measures. In 2001, Congress directed the Council to conduct an analysis of several different approaches to rationalizing the BSAI crab fisheries, some of which are beyond the current authority of the Council, such as individual fishing quotas, processor quotas, cooperatives, and quotas held by communities. Over the course of the last year the Council conducted a comprehensive analysis of rationalization alternatives. At its June 2002 meeting, the Council, by unanimous vote, selected a preferred rationalization alternative, a “voluntary three pie cooperative,” from the several alternatives considered. The Council developed the program to address the particular needs of the BSAI crab fisheries. The primary elements of the program are:

- **Harvest shares** will be allocated for 100 percent of the total allowable catch (TAC).
- **Processing shares** will be allocated for 90 percent of the TAC.
- **Regional share designations** will apply to processor allocations and the corresponding 90 percent of the harvest allocations distributing landings and processing between specific regions.
- A **mandatory binding arbitration** program will be used to settle price disputes between harvesters and processors.
- **Voluntary harvester cooperatives** would be permitted to achieve efficiencies through the coordination of harvest activities and deliveries to processors.
- **Community Development Quota allocations** will be increased from 7.5 percent to 10 percent of the TAC.
- **Captain share allocation** of 3 percent of the TAC for exclusive use by captains and crew.
- A **crew loan program** to assist crewmember entry to the fisheries.
- **Comprehensive data collection and program review** to assess the success of the rationalization program.

Complete allocation of the total allowable catch (TAC) adds precision to stock management beyond that possible in a competitive, race for fish. The separate allocations to harvesters and processors are intended to protect the historic distribution of activities in each sector and mitigate the negative effects of the transition from competitive to rationalized fisheries. The competing interests of harvesters and processors are balanced by allocating different portions of the total harvest to the two sectors. The binding arbitration program is included to further ensure a fair distribution of returns from the fisheries to both sectors. The regional landing and processing requirements protect regional dependence that has developed in the current fishery. Community Development Quota allocations are harvest allocations to groups representing rural Western Alaska communities to facilitate fishing activity and economic development in those areas. Increasing these allocations demonstrate the Council’s commitment to economic development of the geographically isolated areas of Western Alaska. The allocation of shares to captains is intended to protect the interests of captains and crew in the fisheries, which can change as a result of rationalization.

The novelty of the program has compelled the Council to include several safeguards in the program, including extensive data collection and review programs to assess the success of the rationalization program. These safeguards, together with the Council’s continuing development of the program through a series of ongoing amendments and clarifications, demonstrate the Council’s commitment to a fair and equitable rationalization program, which will protect the interests of all sectors that depend on the BSAI crab fisheries.

**Summary of the North Pacific Fishery Management Council's  
Bering Sea and Aleutian Islands Crab Rationalization Program  
Submitted to the United States Congress, August 2002**

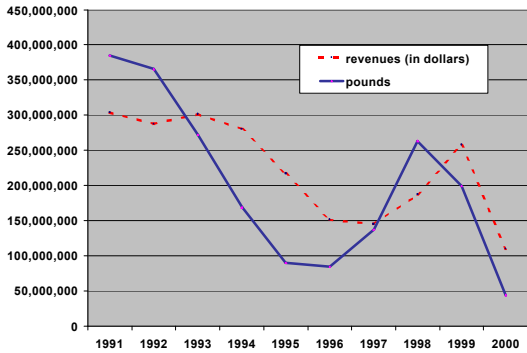
Since their inception, Bering Sea/Aleutian Islands (BSAI) crab fisheries of the North Pacific have attracted participants willing to undertake the financial and personal risks necessary to participate. In recent years, the substantial investments of participants, together with stock declines, have resulted in a race for fish in these fisheries. The shortest fishery is typically prosecuted during a 3 or 4 day season each year. Efforts of managers to protect declining stocks by reducing allowable catch have increased the economic stress on participants and communities that depend on these fisheries and increased pressure on participants to take greater risks. For several years, the North Pacific Fishery Management Council (the Council) has worked with participants to address these problems through series of working groups and management measures. In 2001, Congress directed the Council to conduct an analysis of several different approaches to rationalizing the BSAI crab fisheries, some of which are beyond the current authority of the Council, such as individual fishing quotas, processor quotas, cooperatives, and quotas held by communities.<sup>1</sup> Over the course of the last year the Council conducted a comprehensive analysis of rationalization alternatives. At its June 2002 meeting, the Council, by unanimous vote, selected a preferred rationalization alternative from the several alternatives considered. The Council developed the rationalization program to fit the specific dynamics and needs of the BSAI crab fisheries. The program builds on the Council's experiences with the halibut and sablefish IFQ program and the American Fisheries Act cooperative program for Bering Sea pollock. The program addresses conservation and management issues associated with the current derby fishery and would reduce bycatch and associated mortalities. Share allocations to harvesters and processors, together with incentives for cooperation, would increase efficiencies, provide economic stability, and facilitate compensated reduction of excess capacities in both harvesting and processing sectors. A binding arbitration program will be incorporated into the program developed to resolve price disputes between harvesters and processors, which in the past have delayed fishing. Community interests are protected by Community Development Quota (CDQ)<sup>2</sup> group allocations and regional landing and processing requirements. Captains are allocated a portion of the catch to protect their interests in the fisheries. The program includes a comprehensive socioeconomic data collection program that would aid the Council in assessing the success of the program and developing amendments necessary to mitigate any unintended consequences. Perhaps most importantly, the program would improve safety of participants in the fishery by ending the race for fish. The Council's motion defining the rationalization program is attached hereto as Appendix A. The complete Council analysis is attached as Appendix B. This document summarizes the results of the analysis and describes in detail the Council's preferred alternative and the potential effects of the preferred alternative on the fisheries and participating harvesters, processors, and communities.

The Council set out to develop a program that addresses several concerns in the BSAI crab fisheries. The problem statement developed by the Council highlights resource conservation, bycatch, excess harvesting and processing capacity, lack of economic stability for harvesters, processors, and coastal communities, and occupational safety as primary issues to be addressed by the rationalization program. Harvests and revenues from the fisheries suggest some of the economic problems facing the participants. Figure 1 shows the harvest pounds and gross revenues for all fisheries proposed for rationalization between 1991 and 2000. The figure shows that the revenues from harvests in 2000 (the most recent season for which data are available) are one third of the harvest revenues in 1991. The figure also shows significant fluctuations in both pounds harvested and revenues. Fluctuations in harvest levels and revenues do not coincide for a few reasons. Prices for some species have varied by as much as three-fold across years. The values of different species also differ

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<sup>1</sup> The specific direction appears in the Consolidated Appropriations Act of 2001 (Pub. L. No. 106-554).

<sup>2</sup> Under the CDQ program, harvest allocations are made to groups representing rural Western Alaska communities to facilitate fishing activity and economic development in those areas.



**Figure 1** Harvest revenues and pounds from Bering Sea and Aleutian Islands Crab Fisheries Proposed for Rationalization  
 Source: NPFMC Crab Rationalization Database 2001, Version 1

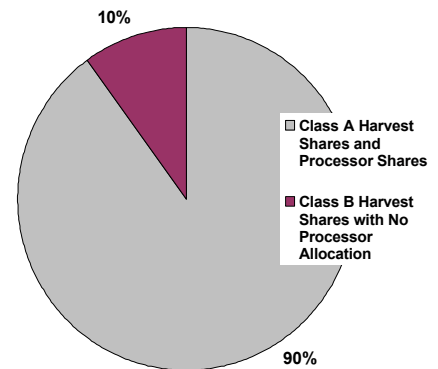
substantially, with red king crab bringing the highest price and *C. opilio* bringing the lowest price. The Council examined these issues in the context of the BSAI crab fisheries, analyzing the biological and environmental conditions in the fisheries, participation patterns in the harvesting and processing sectors, and the relative dependence of those sectors and communities on the fisheries. Using the analysis, the Council developed a preferred program uniquely suited to the conditions in the BSAI crab fisheries.<sup>3</sup> Because the program is a substantial change from current management of the fisheries and is unique in fisheries management, the Council has incorporated several safeguards into the program to mitigate possible negative impacts. In addition, the Council has developed a comprehensive data collection program and a rigorous program review process to allow the Council to

evaluate the success of the program and make any modifications necessary to prevent unintended negative consequences.

**Summary of the Preferred Rationalization Program**

The Council identified as its preferred alternative a “voluntary three pie cooperative” program. The program makes three separate allocations, one to the harvest sector, one to the processing sector, and one to defined regions. All three allocations are based on historic participation to protect investment in and reliance on the fisheries. To ensure protection of historic activities, the form of each allocation is the activity which the recipient participates in and relies on. Harvesters will receive harvest allocations, processors will receive processing allocations, and regions will receive allocations of landings and processing activity. These three separate allocations are also intended to mitigate the negative effects of the transition from competitive to rationalized fisheries.

The competing interests of harvesters and processors are balanced by allocating different portions of the total harvest to the two sectors. Harvesters will be allocated harvest shares for 100 percent of the total allowable catch (TAC). Processors will be allocated processing shares for 90 percent of the TAC. To ensure corresponding allocations to the two sectors, 90 percent of the harvest allocation is allocated as “Class A” shares that require delivery to a processor that holds processing shares. The remaining 10 percent will be “Class B” shares that can be delivered to any processor. Under the program, harvesters would be permitted to form cooperatives to achieve efficiencies through the coordination of harvest activities and deliveries to processors.



**Figure 2** Allocation of harvest shares and corresponding processor shares

To further ensure a fair distribution of returns from the fisheries to both sectors, the program will include a mandatory binding arbitration program for the settlement of price disputes between harvesters and processors. Historically, prices have been settled by harvester strikes, which can be detrimental to both sectors. An effective system of binding arbitration could protect the interests of both sectors in negotiations while avoiding costly delays in fishing due to strikes.

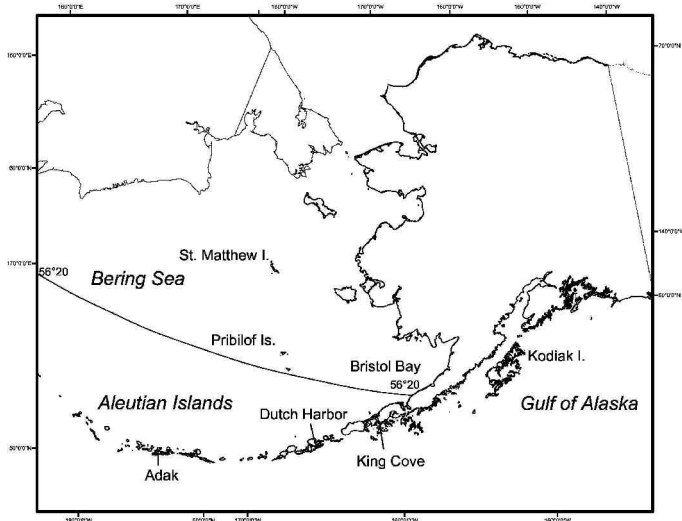
<sup>3</sup> The suitability of the Council’s preferred program for management of the BSAI crab fisheries is not an endorsement of the program for management of other U.S. fisheries (or even other fisheries in the North Pacific). The Council firmly believes that management of a fishery should be specific to the conditions and circumstances in the fishery.

### Primary Components of the Preferred Rationalization Alternative

- Harvesters Allocated 100 percent of the TAC as IFQs
- Processors Allocated 90 percent of the TAC as IPQs
- A voluntary cooperative program to achieve efficiencies through fleet coordination
- Mandatory binding arbitration program for settlement of price disputes
- North/South regionalization of landings and processing to protect communities
- Increase in CDQ allocations from 7.5 percent to 10 percent
- Captain share allocation of 3 percent
- A loan program to assist crewmember entry to the fisheries
- A data collection program and program review to evaluate the

The allocation to regions is accomplished by regionally designating all Class A (delivery restricted) harvest shares and all corresponding processing shares. In most fisheries, regionalized shares are either North or South, with North shares designated for delivery in areas on the Bering Sea north of 56°20' north latitude and South shares designated for any other areas, including Kodiak and other areas on the Gulf of Alaska.<sup>4</sup> Figure 3 is a map showing 56°20' north

latitude, by which the fisheries would be regionally divided. Share designations are based on the historic location of the landings and processing that gave rise to the shares. The program would also increase the allocation of crab to CDQ groups from 7.5 percent to 10 percent, providing additional aid to communities.



**Figure 3** North and south regional designations.

The program also contains several additional measures to protect various interests. Eligible captains will receive 3 percent of the initial allocation of harvest shares. Sideboards would limit the activity of crab vessels in other fisheries (such as the Gulf of Alaska groundfish fisheries) to protect participants in those fisheries from a possible influx of activity that could arise from vessels that exit the crab fisheries or are able to time activities to increase participation in other fisheries.

The Council considered several other rationalization alternatives, including an IFQ program that would allocate harvest shares only, a two pie IFQ program that would allocate harvester shares and processing shares, and several cooperative programs that would allocate shares to harvesters with different levels of

delivery commitments from harvesters to processors. In the estimation of the Council, each of these other alternatives would inadequately protect the interests of historic dependents on the fisheries, neglecting either the interests of an entire group or an identifiable segment of a group.

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<sup>4</sup> In the Western Aleutian Islands (Adak) golden king crab fishery, the designation is based on an east/west line to accommodate a different distribution of activity in that fishery.

## The Impacts of Rationalization on Fisheries

The preferred alternative would rationalize all of the large crab fisheries in the BSAI. The following fisheries would be included in the rationalization program:

- Bristol Bay red king crab
- Western Aleutian Islands (Adak) golden king crab - West of 174° W
- Eastern Aleutian Islands (Dutch Harbor) golden king crab - East of 174° W
- Western Aleutian Islands (Adak) red king crab - West of 179° W
- Pribilof blue and red king crab
- St. Matthew blue king crab
- Bering Sea *C. opilio* (snow crab)
- Bering Sea *C. bairdi* (Tanner crab)

Since these fisheries are currently managed under the License Limitation Program, harvester entry is limited. Individual harvests, however, are determined by the harvests in competitive race for fish. Since the seasons in most of the fisheries selected for rationalization do not conflict, most participants are active in several of the fisheries, moving from one fishery to another throughout the year. Notwithstanding these opportunistic movements from fishery to fishery, equipment is often idle for several months of the year, suggesting substantial overcapitalization. In addition, several participants report that they are unable to breakeven in the fisheries at current harvest levels. The fisheries to be included in the program are fully developed with their grounds well identified. The full development of the BSAI crab fisheries and the idle equipment and facilities make these fisheries suitable for rationalization. A rationalization program would allocate individual quotas to participants, limiting entry and facilitating an orderly and compensated exit of capacity from the fisheries. Trading of shares within the rationalization program should improve efficiency in the fisheries, as the more efficient participants purchase shares from higher cost producers. In addition, the system of revocable privileges would create a system of allocation, removing the race to fish, yet allowing participants to change participation levels in response to changes in conditions of the fisheries or individual circumstances. The comprehensive nature of the program (i.e., including all of the large BSAI crab fisheries) allows participants to coordinate their activities across all of these fisheries, permitting greater levels of efficiency.

The Bristol Bay red king crab, the Bering Sea *C. opilio*, and the Bering Sea *C. bairdi* fisheries are the largest of the BSAI crab fisheries and have received the most fishing effort. Stock declines in the Bristol Bay red king crab and the Bering Sea *C. opilio* have led to short derby seasons of a few days or weeks suggesting substantial overcapitalization. The Bering Sea *C. bairdi* fishery has been closed for the past several seasons. The

### **Benefits of the Rationalization Program**

#### Biological Benefits

- Improved stock management through use of a TAC
- Reduced overharvests through individual allocations
- Reduced discards through longer soak times and better sorting of undersized crab by gear
- Improved handling of discards by ending derby fishery

#### Economic Benefits

- Compensated reductions in capitalization through voluntary share transactions
- Economic stability for the harvesting and processing sectors and communities

#### Social Benefits

- Preservation of regional distribution of economic activity
- Facilitated entry to the fishery for crew
- Protection of historical interests of captains

#### Safety Benefit

- Improved safety by ending the derby fishery

Pribilof blue and red king crab<sup>5</sup> and the St. Matthew blue king crab fisheries have been closed in recent years due to stock declines. When open, these fisheries also received substantial effort, primarily from vessels that also participate in the largest BSAI crab fisheries. The Aleutian Islands golden king crab fisheries have received less effort than most of the other BSAI crab fisheries due to their remote grounds and the need for specialized gear for participation. Participation in these fisheries has increased in recent years and would likely increase further, if they were omitted from the rationalization program. The Western Aleutian Islands (Adak) red king crab fishery has been closed in recent years. Harvest strategies are currently being developed to open this fishery. The fishery is relatively small and would likely experience an influx of capacity, if the fishery were omitted from the rationalization program.<sup>6</sup>

Rationalization should benefit crab stocks and their habitat. The rationalized fisheries would be managed with a total allowable catch (TAC), which sets a specific catch limit, instead of a guideline harvest level (GHL) as is currently used. GHLs set target catch as a range as opposed to a specific target catch set by a TAC. This more precise management of harvests should benefit stocks. In addition, the individual allocations in a rationalized fishery also increase accountability and decrease the chance of overharvests from the fishery. In the current derby fisheries, managers monitor harvests by in season reports and attempt to time the closure of the fishery with completion of the harvest of the GHL. The GHL is often exceeded through no fault of the managers because inseason monitoring cannot keep pace with harvests during the short seasons. To ensure that harvest goals are not exceeded in the rationalized fishery, any overharvest would be forfeited. In addition, penalties would be imposed for any overage in excess of 3 percent of a person's allocation. Individual allocations in a rationalized fishery permit this level of accountability and should ensure that harvest goals are met but not exceeded.

The Council and the State of Alaska<sup>7</sup> are committed to revising the inseason management appropriately to improve protection of the crab resource under rationalization. Pot limits may be relaxed in a rationalized fishery, allowing pots to soak longer. Longer soak times allow crab pot escape mechanisms to function, reducing harvests and discards of undersized and female crab. Seasons in most fisheries will be extended, with closures to protect crab during molting and mating seasons and possible limits to facilitate monitoring. The monitoring program in the fisheries will be adapted to address potential changes in fishing practices under the rationalization program and improve knowledge of stocks in slower paced fisheries. High grading (or the retention of only the highest value catch) can occur when the benefit of discarding low value catch and replacing it with higher value catch exceeds the cost of reharvesting. Rationalization will remove the time pressures of a derby fishery, which could increase the incentives to high grade, since harvesters would not sacrifice a share of the fishery when discarding catch. Additional monitoring will be necessary to determine the potential for high grading and to enforce regulations developed to minimize detrimental impacts of changes in fishing practices on stocks. Vessel Monitoring Systems and increased observer coverage and shore side monitoring are anticipated under the rationalization program. Additional onboard observer coverage and

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<sup>5</sup> The Pribilof blue and red king crab have been harvested in a combined fishery for several years. Managers protect the two different stocks through area closures and season scheduling. Continued management in the combined fishery is thought to be appropriate to protect the two stocks and to maintain consistency of operations for the current participants.

<sup>6</sup> A few federal fisheries are excluded from the program, most notably the Norton Sound red king crab fishery, which is operated under a "super exclusive" permit program intended to protect the interests of local, small vessel participants. Under the permit program, participants in the Norton Sound fishery are not permitted to participate in any other BSAI crab fishery minimizing the relationship between this fishery and the overcapacity that has occurred in the other fisheries.

<sup>7</sup> The BSAI crab fisheries are subject to joint federal and state management with certain elements of oversight, including monitoring, in-season management, and observer coverage deferred to the State of Alaska. The Council contemplates that the joint management relationship would continue in the rationalized fishery.



dockside sampling are needed to determine if changes in fishery selectivity occur. The preferred rationalization program requests that the State of Alaska Department of Fish and Game, the State of Alaska Board of Fisheries and the State of Alaska Board of Fisheries/North Pacific Fishery Management Council Joint Protocol Committee address concerns of discards, highgrading, incidental catch, and the need for bycatch reduction, improved retention, and inseason monitoring under the program. Although resource concerns could arise in a rationalized fishery, the reduction of time pressures creates the opportunity for improving understanding of stocks, discard reductions and improved handling. The Council and the State of Alaska are committed to realizing these opportunities.

## **The Harvest Sector**

Harvesters would be allocated quota shares (QS) in each fishery rationalized by the program. QS are a revocable privilege that allow the holder to receive an annual allocation of a specific portion of the annual TAC from a fishery. These annual allocations are referred to as Individual Fishing Quotas (IFQs). QS will be designated as either catcher vessel shares or catcher/processor shares, depending on whether the vessel that created the privilege to the shares processed the qualifying harvests on board. Catcher vessel QS and IFQ would also be issued in two classes, Class A shares and Class B shares. Class A shares, which will require delivery of harvests to a processor holding processor quota, will be issued for 90 percent of the TAC in each fishery. Class A shares will also be subject to regionalization, under which harvests will be required to be delivered within an identified region. Class B shares, which will permit delivery of harvests to any processor (except catcher/processors) and would not be regionally designated, will be issued for the remaining 10 percent of the TAC. The issuance of Class B shares is intended to provide harvesters with additional market leverage for negotiating prices for landings of crab. The ratio of Class A to Class B shares is intended to balance the interests of processors and communities in continuing participation in the fisheries with the interests of harvesters in having a free market in which to sell harvests.

To receive a QS allocation in a fishery a harvester must hold a valid, permanent, fully transferable License Limitation Program (LLP) license endorsed for the fishery. Since LLP licenses are the current qualification for participation in the fisheries, their use for defining eligibility in the rationalization program will maintain the current fishery participation and are consistent with prior measures by the Council to reduce effort in the fisheries. Reliance on LLP licenses will also streamline administration of the program since the adjudication of most licenses is complete. Use of other criteria would entail additional eligibility adjudication which could be time consuming and inconsistent with current participation requirements.

A harvester's allocation of QS for a fishery would be based on landings in that fishery (excluding landings of deadloss). Specifically, each allocation is the harvester's average annual portion of the total qualified catch during a specific qualifying period. Qualifying periods were selected to balance historical participation and recent participation. Different periods were selected for different fisheries to accommodate closures and other circumstances in the fisheries in recent years. The most recent seasons were excluded in part to limit the effectiveness of efforts by participants to obtain a larger allocation by increasing participation in recent seasons when it was apparent that allocations would be based on historic harvest levels. Qualifying periods for the various fisheries are shown in Table 1.

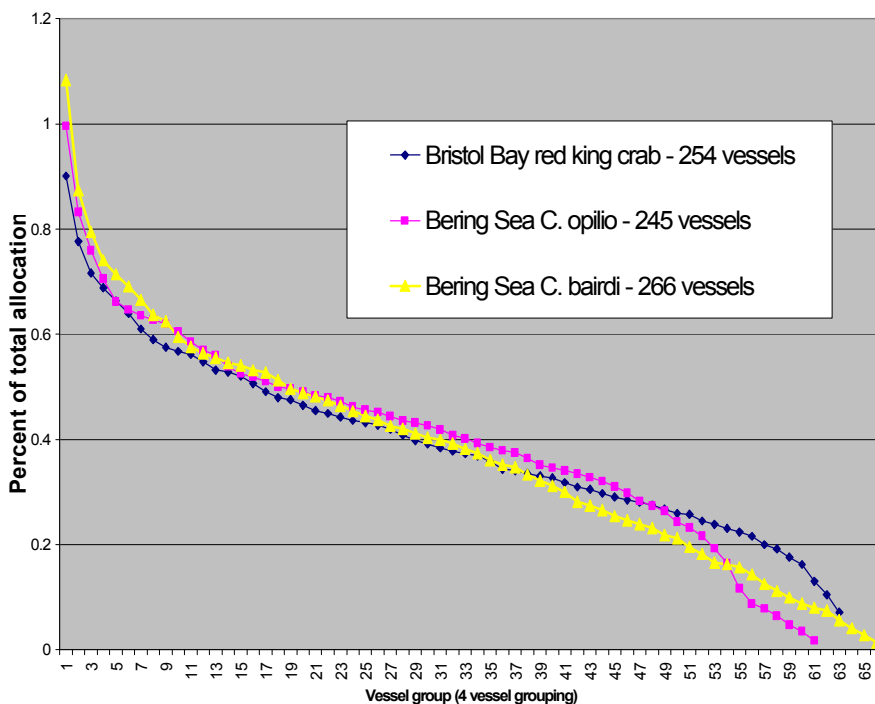
**Table 1** Qualifying periods for harvest shares for each fishery.

Fishery	Qualifying years
Bristol Bay red king crab	1996 - 2000 (best 4 of 5 seasons)
Bering Sea <i>C. opilio</i> (snow crab)	1996 - 2000 (best 4 of 5 seasons)
Bering Sea <i>C. bairdi</i> (Tanner crab)	1991/92 - 1996 (best 4 of 6 seasons)
WAI (Adak) golden king crab	1996/97 - 2000/01 (all 5 seasons)
EAI (Dutch Harbor) golden king crab	1996/97 - 2000/01 (all 5 seasons)
WAI (Adak) red king crab - West of 179° W	1992/93 - 1995/96 (best 3 of 4 seasons)
Pribilof blue and red king crab	1994 - 1998 (best 4 of 5 seasons)
St. Matthew blue king crab	1994 - 1998 (best 4 of 5 seasons)

Generally, qualified catch is the catch of the vessel that created the privilege to the LLP license on which eligibility is based. In some circumstances, the catch of other vessels could be considered qualified catch. Since LLP licenses (and permits under the vessel moratorium program that preceded the LLP) are transferrable from vessel to vessel, catch on the vessel on which a license was used would be included in determining the allocation associated with a license. Because the use of license on a vessel was not recorded during the first two years of the LLP, the number of persons that qualify for this provision is not known with precision. The consistency of participation in the fishery suggests that the provision applies to a small number of participants. An additional provision would permit a person that purchased a LLP license to continue to participate in a fishery to receive an allocation based on the history of the vessel on which the license was used. Less than 12 participants would qualify for this provision. Finally, a provision would permit persons that owned vessels that sank and were replaced under the LLP license qualification rules to credit 50 percent of their average annual

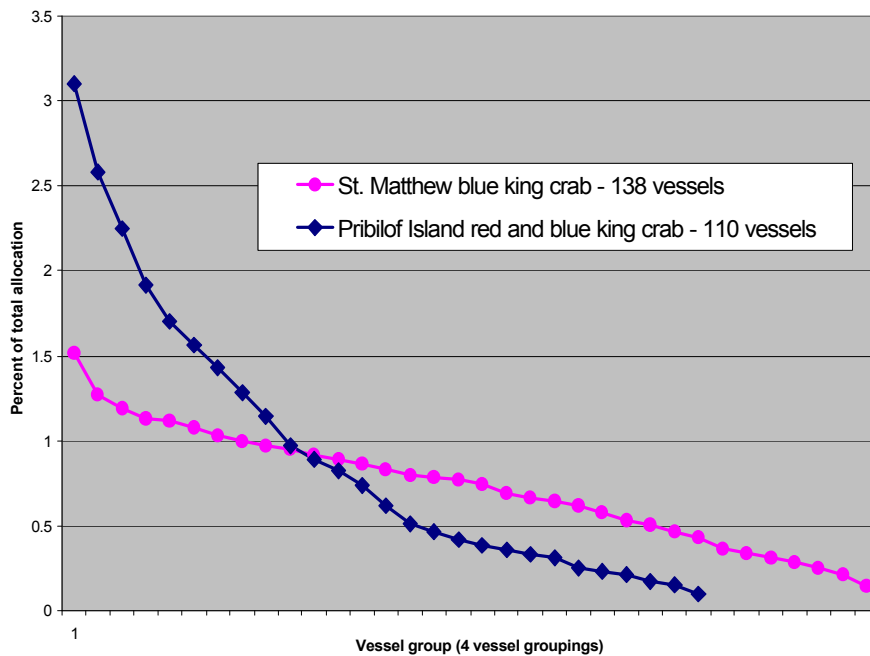
history in qualifying years that the vessel participated, for years that the vessel or its replacement was unable to participate. Less than 10 participants would qualify for this provision. In general, provisions for crediting qualifying catch from a vessel other than the vessel that created the LLP privilege are intended to reward participation in compliance with the LLP or limit the hardships that arise from circumstances outside of a participant's control.

The initial allocation of shares varies from fishery to fishery because of different levels of participation and participation patterns. Figures 4, 5, and 6 show the estimated initial allocation in the different fisheries.



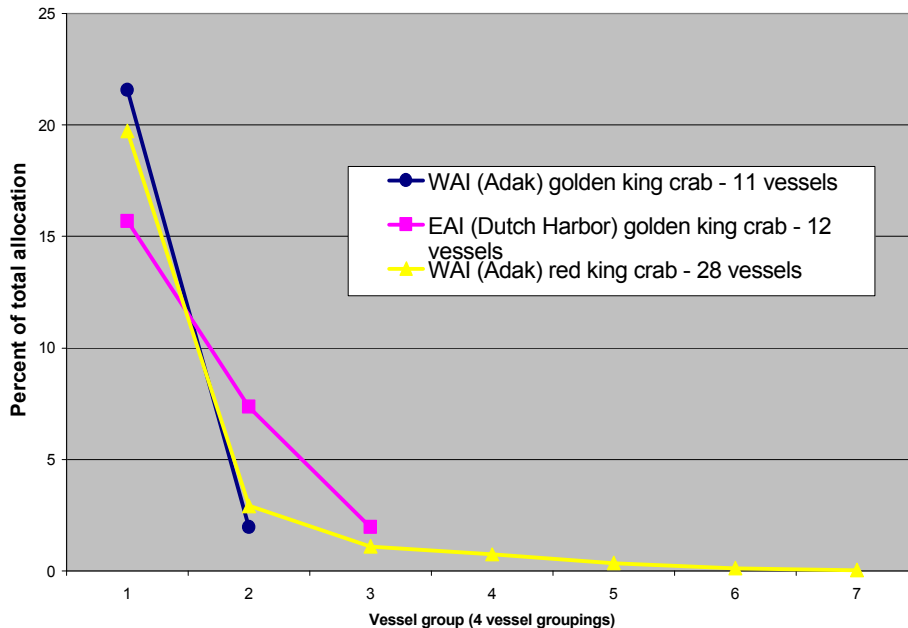
**Figure 4** Harvest share allocation for Bristol Bay red king crab and Bering Sea *C. opilio* and *C. bairdi* crab fishery

Source: NPFMC Crab Rationalization Database 2001, Version 1



**Figure 5** Harvest share allocation for St. Matthew blue king crab and Pribilof Island red and blue king crab fishery

Source: NPFMC Crab Rationalization Database 2001, Version 1



**Figure 6** Harvest share allocation for WAI golden and red king crab, and EAI golden king crab fishery

Source: NPFMC Crab Rationalization Database 2001, Version 1

Eligibility and distributions were estimated on a vessel basis.<sup>8</sup> Since some participants may own interests in multiple vessels and licenses the estimates may not be totally accurate. Confidentiality of vessel and license ownership information prevent more detailed disclosure of the allocations.<sup>9</sup>

To protect confidentiality, the allocations are shown in groups of 4 vessels, with vessel groupings made in descending order from the largest estimated allocation to the smallest allocation. The last and smallest grouping contains between 4 and 7 estimated allocations, since at least 4 persons' activities must be included under confidentiality rules. The estimated allocation shown for each 4 vessel group is the average allocation to members of that group. Allocations are shown as shares of the total harvest allocation. Each legend shows the total number of vessels that would receive an allocation in each fishery. Because allocations are averages, it is possible, particularly in the grouping with the largest allocation, that the largest allocation to a single vessel is significantly different from the average of those four vessels.

<sup>8</sup> If a vessel engaged in activity that met the eligibility requirements for a distribution, the distribution was estimated using only the activity of the vessel that met the eligibility requirements. Amendment 10 to the LLP creates some exceptions that would entitle some persons to LLP licenses that do not meet these requirements. Records concerning the qualification of persons under the Amendment 10 exceptions to the LLP requirements are not yet available, so that currently, the most complete analysis is based on activities of single vessels. These exceptions are likely to result in the inclusion of more vessels in the allocation. In addition, the suboptions related to license transfers could result in some allocations being larger than the estimated allocations represented here.

<sup>9</sup> The data collection program included in the preferred rationalization program would require participants to submit ownership information from which individual interests in the fisheries could be analyzed.

The figures and table show that the allocations vary significantly from fishery to fishery. Differences in the allocations arise from the different patterns of participation and catch history in the different fisheries. The Bering Sea *C. opilio* and *C. bairdi* and the Bristol Bay red king crab fisheries have the greatest estimated number of eligible vessels (between 245 and 266) and the least concentrated distribution. In these fisheries, the average of the largest four allocations is approximately 1 percent of the total allocation. The median allocation is approximately 0.4 percent of the total allocation. The allocation in the St. Matthew blue king crab fishery is slightly more concentrated, with 138 vessels estimated to receive an allocation. The average of the largest four allocations in these fisheries would be approximately 1.5 percent of the total allocation. The median allocation would be approximately 0.8 percent. In the Pribilof red and blue king crab fishery 110 vessels are estimated to receive an allocation. The average of the four largest allocations is estimated to be approximately 3 percent. The mean allocation in this fishery is approximately 0.6 percent (slightly less than the median allocation in the St. Matthew blue king crab fishery). The allocations in the Aleutian Islands fisheries are the most concentrated. These fisheries are the most distant from processing and other support facilities, discouraging some participation. The golden king crab fisheries also require additional gear for longlining pots and have limited grounds, complicating entry to those fisheries. Approximately 30 vessels would receive an allocation in the Western Aleutian Islands (Adak) red king crab fishery, which has been closed for several year but is showing signs of recovery. The four largest allocations in this fishery are estimated to average almost 20 percent of the total allocation. The concentration of shares in the fishery is also shown by the low median allocation, which is less than 1 percent. In the two Aleutian Island golden king crab fisheries, slightly more than 10 vessels would receive an allocation. The median allocation in the Western fishery, however, is more concentrated than the Eastern fishery. In the Western fishery, the four largest allocations are estimated to average approximately 22 percent of the total allocation. The median allocation in the fishery is estimated to be approximately 2.6 percent. In the Eastern fishery, the four largest allocations average approximately 16 percent, while the median allocation is slightly less than 8 percent.

QS and IFQ would both be transferrable under the program, subject to limits on the amount of shares a person may own or use. Leasing of QS (or equivalently, the sale of IFQs) may be prohibited, except within cooperatives, after the first five years of the program. Leasing is defined as the use of IFQs on a vessel in which the owner of the underlying QS holds less than a 10 percent ownership interest and on which the underlying QS holder is not present. Transferability of shares is necessary to reduce fleet size and remove capital from the fishery. The limit on leasing of QS (or sale of IFQs) by persons not in cooperatives would be intended to create an incentive for cooperative membership. The interim period in which leasing is not constrained is intended to allow a period of adjustment during which harvesters can coordinate fishing activities and build relationships necessary for cooperative membership.

To be eligible to purchase QS or IFQs a person would be required to be a US citizen and to have at least 150 days of sea time in US commercial fisheries in a harvest capacity. An entity would be eligible to purchase shares only if it is at least 20 percent owned by a US citizen with at least 150 days of sea time in US commercial fisheries in a harvest capacity. Initial recipients of QS and CDQ groups are exempt from these eligibility criteria. These sea time requirements are intended to ensure that the harvest sector does not evolve into a fishery owned by entities that have no fishing background.

Separate caps would be imposed on the ownership of shares by any person<sup>10</sup> and the use of IFQs on any vessel. These caps are intended to prevent excessive consolidation of shares under the program. Limits on consolidation can be used to ensure adequate levels of market competition, facilitate entry to the fishery, protect labor markets, and ensure that the resource supports several participants. Different caps are chosen for the

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<sup>10</sup> The Council intends to clarify its position on ownership and use caps at its October meeting. The current Council motion contains only caps on share “ownership”. Since limits on IFQ ownership effectively control the use of shares, ownership caps can be interpreted as capping use. This parallels the interpretation of use caps as limiting ownership adopted in the halibut and sablefish IFQ program.

different fisheries because of different fleet characteristics and the differences in historic dependency of participants on the different fisheries. Vessel use caps would not apply to cooperatives providing an additional incentive for cooperative participation. The ownership and use caps proposed for the different fisheries in the Council's preferred rationalization alternative are shown in Table 2 below.

Ownership caps are applied individually and collectively. Under this rule all of a person's direct holdings are credited toward the cap. In addition, a person's indirect holdings are also credited toward the cap in proportion to the person's ownership interest. For example, if a person owns a 20 percent interest in a company that holds 100 shares, that person is credited with holding 20 shares for purposes of determining compliance with the cap.<sup>11</sup> These ownership rules are thought to be more effective in preventing excessive consolidation of shares. The accuracy of the analysis of ownership caps, however, is limited by the lack of availability of complete ownership data. The analysis relied on registered license holder data files, which do not show ownership holdings beyond the registered owner. Detailed ownership data necessary for full analysis of ownership is currently unavailable because of restrictions that prevent analysts from accessing detailed ownership information. Application of the rules under the program will require the submission of detailed ownership information by shareholders.

**Table 2.** Ownership and use caps for the crab fisheries.

	Number of owners <sup>1</sup>	Ownership cap	Number of owners over the cap	Number of vessels <sup>2</sup>	Vessel use cap	Number of vessels over the cap
Western Aleutian Islands (Adak) Golden King Crab	14	0.1	*	11	0.2	*
Western Aleutian Islands (Adak) Red King Crab	38	0.1	6	28	0.2	*
Bristol Bay Red King Crab	303	0.01	10	254	0.02	0
Bering Sea C. <i>Opilio</i>	290	0.01	16	245	0.02	0
Bering Sea C. <i>Bairdi</i> (EBS Tanner Crab)	312	0.01	17	266	0.02	0
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab	15	0.1	6	12	0.2	*
Pribilof Red and Blue King Crab	136	0.02	18	110	0.04	0
St. Matthew Blue King Crab	163	0.02	*	138	0.04	0

Sources: NPFMC Crab Rationalization Database, Version 1, 2001 and NMFS, RAM license registration files (2001).

1. Allocations to vessels are aggregated based on LLP license ownership files of NMFS RAM.

2. Allocations are on a vessel basis without aggregation.

Table 2 also shows the estimated number of registered license holders that would be allocated shares in each fishery under the rationalization program and the number that would exceed the applicable ownership caps. Initial allocations of shares above the cap would be grandfathered. The number of allocations over the specified levels varies from fishery to fishery with the number of participants and the differences in participation patterns. The Aleutian Islands fisheries, which have the least participants, are the most concentrated. In two of the three Aleutian Islands fisheries, six owners would receive allocations in excess of 10 percent of the total allocation. The number of vessels receiving allocations in excess of 20 percent cannot be shown in any fishery because of confidentiality restrictions. The St. Matthews and Pribilof Islands fisheries between 40 and 50 owners would receive allocations in excess of one percent of the total allocation. In the Pribilof Islands fishery, the number of persons receiving an allocation in excess of 5 percent cannot be shown, while no owner would receive an allocation in excess of 5 percent in the St. Matthew fishery. In the Bristol Bay red king crab, the Bering Sea C. *opilio*, and the Bering Sea C. *bairdi* fisheries no owners would receive an allocation in excess of 5 percent and less than 20 would receive an allocation in excess of 1 percent.

To protect independent vessel owners and processors that are not vertically integrated, processor ownership of harvest shares will also be limited by caps on vertical integration. A processor's ownership of QS is limited

<sup>11</sup>Because use caps are applied on a vessel basis, no similar issue arises in applying use caps.

to 5 percent of the QS pool on a fishery basis. These caps are applied using a threshold rule for determining whether the shares are held by a processor, and then the individual and collective rule for determining the extent of share ownership. Under the threshold rule, any entity with 10 percent or more common ownership with a processor is considered to be a part of that processor. Any direct holdings of those entities would be fully credited to the processor's holdings. Indirect holdings of an entity would be credited toward the processor's cap in proportion to the entity's ownership. The rules for applying the caps on vertical integration are thought to be appropriate for limiting consolidation of harvest shares by processors. Initial allocations of shares above the cap would be grandfathered. The analysis of vertical integration relied on ownership data provided to the analysts by major processors that participate in the BSAI crab fisheries. These data were voluntarily submitted to assist Council staff with the analysis and were fully disclosed during the Council proceedings.

Table 3 shows the number of processors with affiliated vessels, the number of vessels affiliated with processors, and allocations to those vessels. A vessel and processor with 10 percent common ownership are considered affiliated, as required by the threshold rule in the Council's preferred alternative. Vertical integration varies by fishery. The three Aleutian Islands fisheries have a single processor affiliated with a single participating vessel. In the Pribilof and St. Matthews fisheries, four processors are affiliated with 9 and 10 vessels. These processor affiliated vessels will receive between 8 and 12 percent of the total allocation. In the Bristol Bay and Bering Sea fisheries, six processors are affiliated with between 25 and 35 vessels. These vessels will receive slightly more than 12 percent of the total allocation in these fisheries. Confidentiality restrictions prevent the disclosure of the number of allocations over specific levels.

**Table 3.** Number of processor/vessel affiliations by fishery.

<b>Fishery</b>	<b>Number of processors affiliated with vessels</b>	<b>Number of vessels affiliated with processors</b>	<b>Number of vertically integrated allocations over 2.5%</b>	<b>Number of vertically integrated allocations over 5%</b>	<b>Total allocation to processor affiliated vessels</b>
Western Aleutian Islands (Adak) Golden King Crab	1	1	0	0	*
Western Aleutian Islands (Adak) Red King Crab	1	1	0	0	*
Bristol Bay Red King Crab	6	31	*	*	0.125
Bering Sea C. Opilio	6	25	*	0	0.122
Bering Sea C. Bairdi (EBS Tanner Crab)	6	33	*	*	0.127
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab	1	1	*	0	*
Pribilof Red and Blue King Crab	4	9	*	*	0.117
St. Matthew Blue King Crab	4	10	*	0	0.086

\* Withheld for confidentiality.

Sources: NPFMC Crab Rationalization Database, Version 1, 2001 and processor vessel ownership information (2001).

## The Processing Sector

The preferred rationalization program would also create a processing privilege, which would be allocated to processors, that is analogous to the harvest privilege allocated to harvesters. These allocations to processors are intended to protect processor investment in the fisheries and balance the bargaining power of processors with harvesters receiving harvest shares. Processors will be allocated processing quota shares (PQS) in each fishery rationalized by the program. PQS are a revocable privilege to receive deliveries of a specific portion of the annual TAC from a fishery. These annual allocations of processing privileges are referred to as Individual Processing Quotas (IPQs). IPQs would be issued for 90 percent of the allocated harvests, corresponding to the 90 percent allocation of Class A harvest shares.<sup>12</sup> The annual IPQ allocation would equal the percent of the total PQS pool held by a processor times 90 percent of the TAC, the portion of the TAC for which processor shares are allocated. Leaving the remaining 10 percent of processing unallocated, and therefore deliverable to any processor, is intended to strike a balance of bargaining power between the harvesting and processing sectors. In addition, this unallocated 10 percent of processing would allow entry to that sector.

Processors that processed crab in either 1998 or 1999 would be eligible for an initial allocation of PQS. Under a hardship provision, a processor that failed to meet this requirement but that processed *C. opilio* in all years from 1988 to 1997 and invested in excess of \$1 million dollars in processing equipment and improvements after 1995 would be eligible for an allocation. The use of these eligibility criteria are intended to prevent reentry of processors that have already elected to exit the fisheries. Processing shares will be regionally designated for processing in a North or South region (corresponding to the regional designation of the Class A harvest shares).

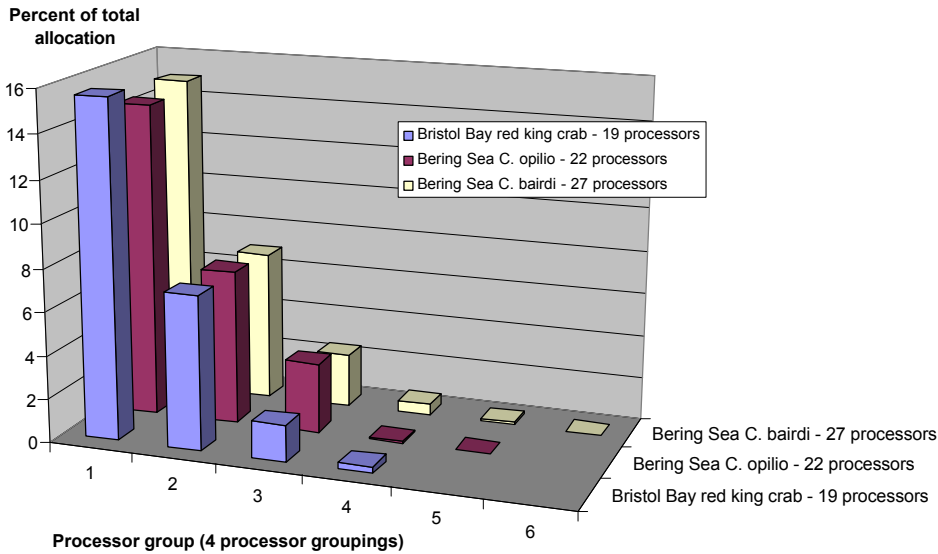
PQS allocations would be based on processing history during a specified qualifying period for each fishery. A processor's allocation in a fishery would equal its share of all qualified processing in the qualifying period (i.e., pounds processed by the processor divided by pounds processed by all qualified processors). The qualifying periods for determining processor allocations shown in Table 4.

**Table 4.** Qualification Periods for Processor Share Allocations.

<b>Fishery</b>	<b>Qualifying years</b>
Bristol Bay red king crab	1997 - 1999 (3 seasons)
Bering Sea <i>C. opilio</i> (snow crab)	1997 - 1999 (3 seasons)
Bering Sea <i>C. bairdi</i> (Tanner crab)	Based 50 percent on allocation for Bristol Bay red king crab and 50 percent on allocation for Bering Sea <i>C. opilio</i>
WAI (Adak) golden king crab	1996/97 - 1999/2000 (4 seasons)
EAI (Dutch Harbor) golden king crab	1996/97 - 1999/2000 (4 seasons)
WAI (Adak) red king crab - West of 179° W	Based on allocation for WAI (Adak) golden king crab
Pribilof blue and red king crab	1996 - 1998 (3 seasons)
St. Matthew blue king crab	1996 - 1998 (3 seasons)

Allocations will made to the buyer of record on Alaska Department of Fish and Game fish tickets, except if the buyer can be determined to be an entity other than the entity named on the fish ticket, by the State of Alaska

<sup>12</sup>Processor privileges would not apply to the remaining 10 percent of the TAC (corresponding to the 10 percent of the TAC allocated as Class B harvest shares).

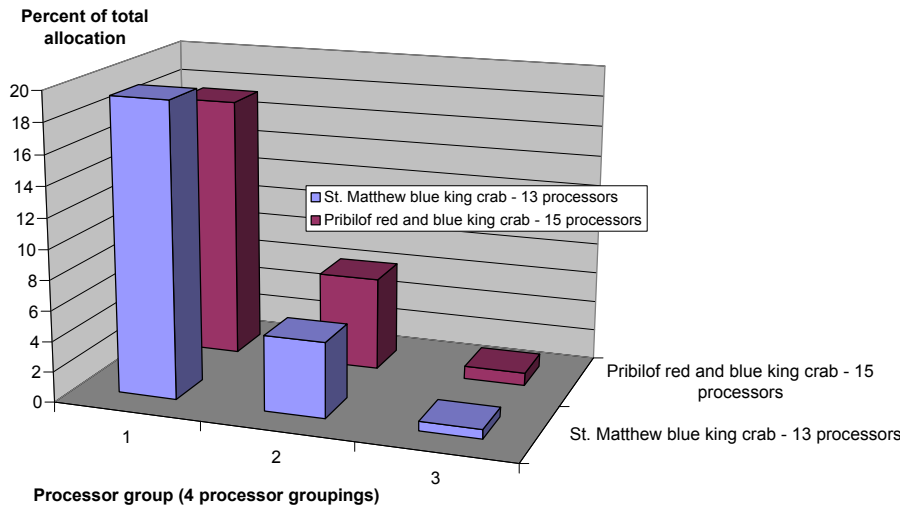


**Figure 7** Processor share allocations in the Bristol Bay red king crab, Bering Sea c.opilio and the Bering Sea c.bairdi crab fisheries. Source NPFMC crab rationalization database, 2001, Version 1

Commercial Operators Annual Report, fish tax records, or other evidence of direct payments to fishermen. This rule reflects an intention to allocate shares to the entity which purchased the crab and funded the processing activity. Several processors have made “custom processing” arrangements with other processors, under which one entity processes crab on behalf of another entity. Under these arrangements, the processing activity is often funded by an entity other than the entity taking

delivery of the crab.<sup>13</sup>

Figures 7, 8, and 9 show the distribution of processing share allocations.<sup>14</sup> As with harvesters, the allocations are grouped into 4 processor groupings to protect confidentiality. Processor groupings were made in descending order from the largest estimated allocation to the smallest allocation. The last and smallest grouping contains between 4 and 7 estimated allocations, since at least 4 persons’ activities must be included under confidentiality rules. The estimated allocation shown for each 4 vessel group is the average allocation to members of that group. Allocations are shown as shares of the total processing allocation. Each legend shows the total number of vessels that would receive an allocation in each fishery. Because allocations are averages it is possible, particularly in the grouping with the largest allocation,



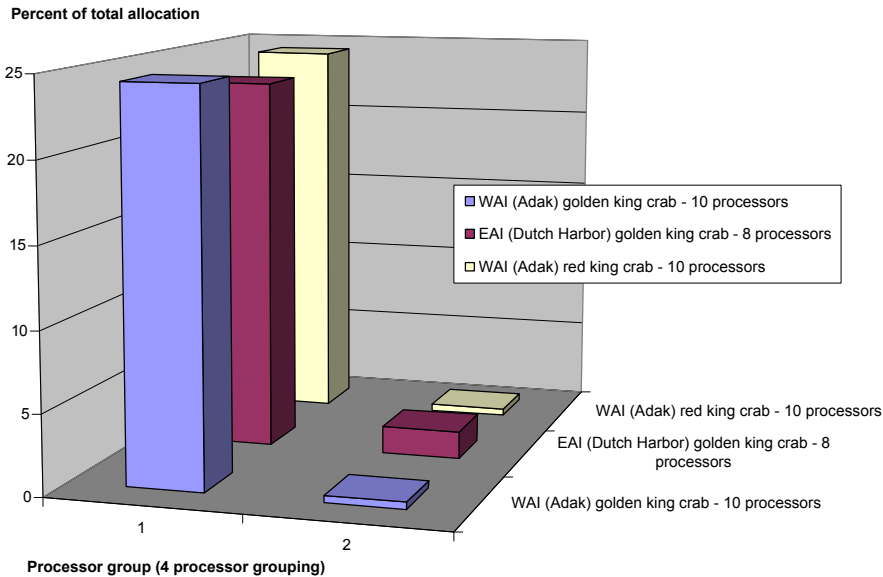
**Figure 8** Processor share allocations in the St. Matthew blue king crab and Pribilof red and blue crab fisheries. Source: NPFMC crab rationalization database, 2001, Version 1

that the largest allocation to a

<sup>13</sup> The quantitative analysis of the allocations relied strictly on fish ticket data, and therefore does not show custom processing relationships in the fishery. Detailed information on custom processing is not readily available. Available information shows that custom processing accounts for between 7 and 10 percent of all processing in the BSAI crab fisheries.

<sup>14</sup> Processor allocations are aggregated at the company level based on processor facility ownership information verified with participating processors.





**Figure 9** Processor allocations in the Aleutian Island king crab fishery  
 Source: NPFMC crab rationalization database, 2001, Version 1

single processor is significantly different from the average of those four processors. In addition to the graphs, Table 5 shows the average of the four largest allocations, the mean allocation, and the median allocation under each option.<sup>15</sup>

Processor allocations are substantially more concentrated than harvester allocations. This relative concentration occurs for two reasons. First and of greater importance, there are relatively fewer processors active in the fisheries than vessels active in the fishery. Second, more complete ownership information

is available concerning processors. Processor allocations were aggregated to the company level. Company ownership of facilities was determined based on existing records with the assistance of processor representatives.<sup>16</sup> This allowed the analysts to obtain a fairly reliable ownership aggregation of facilities. Records of vessel ownership that are reliable are not available. Allocations of processing to catcher/processors are included and are calculated in the same manner as for floating and shore based facilities, but are not aggregated at the company level because of the lack of vessel ownership data.

As in the harvest sector, processing allocation concentration varies across fisheries. The Aleutian Islands fisheries have the greatest concentration, with the four largest allocations comprising in excess of 90 percent of the total allocation. The Eastern Aleutian Islands golden king crab fishery has the largest median allocation - 6 percent. Only 8 processors will receive an allocation in this fishery, so only 4 processors would receive allocations in excess of the median. In the Pribilof and St. Matthews fisheries, the allocations are slightly less concentrated with the four largest allocations making up between approximately 70 and 80 percent of the total allocation. These fisheries have median allocations of approximately 4 percent, showing that between 6 and 7 processors would receive allocations larger than 3 to 4 percent. In the Bristol Bay and Bering Sea fisheries, the allocations to the four largest processors is approximately 60 percent of the total allocation. The low medians of these allocations together with the total number of processors receiving allocations show that approximately 10 processors would receive allocations in excess of 1 to 2 percent. In addition, the graph of the allocations in these fisheries show that approximately 8 processors would receive allocations in excess of 5 percent.

<sup>15</sup> The mean allocation is the average allocation. The median allocation is the allocation at the midpoint in the distribution, for which half of the allocations are larger and half of the allocations are smaller.

<sup>16</sup> The facility ownership aggregations used by the analysts appear in Appendix 3-3 of the Council analysis of Crab Rationalization, which is attached as Appendix A of this document. Some of the companies on that list have common owners. Peter Pan and Steller Sea have some common ownership, as do Westward Seafoods and Alyeska Seafoods. Depending on the rules chosen for determining ownership for purposes of applying caps, these companies with common owners might be considered a single entity. These companies were considered separate entities for purposes of the AFA.

Processor shares would be transferable, including leasing of PQS (or equivalently, the sale of IPQs) subject only to use and ownership caps. IPQs would be usable at any facility of a processor without transfer. In addition, new processors would enter the fishery by purchasing PQS or IPQs or by purchasing crab harvested with Class B shares or CDQ crab.

Ownership of PQS would be limited to 30 percent of the outstanding PQS in a fishery.<sup>17</sup> As with vertical integration caps, PQS ownership caps would be applied using a threshold rule for determining whether the shares are held by a processor and then the individual and collective rule for determining the extent of share ownership. Under the threshold rule, any entity with 10 percent or more common ownership with a processor is considered to be a part of that processor. Any direct holdings of those entities would be fully credited to the processor's holdings. Indirect holdings of those entities would be credited toward the processor's cap in proportion to the entities ownership. Initial allocations of shares above the cap would be grandfathered. In addition, in the *C. opilio* fishery no processor would be permitted to use in excess of 60 percent of the IPQs issued in the Northern region. Processing use caps for other species and regions were not included. The number of allocations in excess of the ownership cap in each fishery are shown in Table 5.

**Table 5** Processor allocation statistics and share caps.

Fishery	Mean	Median	Average of four largest allocations	Number of processors	Allocations in excess of the 30% cap
Western Aleutian Islands (Adak) Golden King Crab	0.100	0.008	0.244	10	*
Western Aleutian Islands (Adak) Red King Crab <sup>1</sup>	0.100	0.008	0.244	10	*
Bristol Bay Red King Crab	0.053	0.017	0.156	19	0
Bering Sea <i>C. Opilio</i>	0.045	0.020	0.145	22	0
Bering Sea <i>C. Bairdi</i> (EBS Tanner Crab)	0.037	0.006	0.150	27	0
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab	0.125	0.060	0.233	8	*
Pribilof Red and Blue King Crab	0.067	0.038	0.173	15	0
St. Matthew Blue King Crab	0.077	0.043	0.193	13	*

<sup>1</sup> Allocation is based on the WAI (Adak) golden king crab allocation.

<sup>2</sup> Withheld for confidentiality.

Sources: NPFMC Crab Rationalization Database, Version 1, 2001.

### Catcher/processor provisions

Catcher/processers participate in both the harvest and processing sectors and therefore have a unique position in the program. A few provisions of the program have been developed to address this unique position. These provisions are intended to protect the historic role and participation of catcher/processers under the program. Catcher/processers will be allocated catcher/processor QS and corresponding catcher/processor IFQs under the program. These shares will carry both a harvest privilege and an accompanying on board processing privilege. To be eligible for catcher/processor shares, a person must be eligible for a harvest allocation by holding a permanent, fully transferable catcher/processor LLP license. In addition, the catcher/processor must have processed crab in either 1998 or 1999. These requirements parallel the harvester and processor eligibility requirements. Persons meeting these eligibility requirements will be allocated catcher/processor shares in accordance with the allocation rules for harvest shares for all qualified catch that was processed on board.<sup>18</sup>

<sup>17</sup> As noted above, the Council will clarify its position on ownership and use caps at its October meeting. If the Council intends for ownership caps to apply to IPQ holdings, these caps are effectively use caps. If interpreted as such, the use cap on North shares in the Bering Sea *C. opilio* fishery would be an exception to the 30 percent cap on share ownership and use that is proposed for other fisheries.

<sup>18</sup> Catcher/processers that meet only the harvest eligibility requirement would receive an allocation of catcher/vessel shares for any qualified catch. Likewise, catcher processors that meet only the processing eligibility requirement would receive only processor shares.

Participants that meet one but not both eligibility requirements would be allocated shares for the sector in which they meet eligibility requirements.

Since catcher/processor shares provide both harvesting and on board processing privileges, a person holding those shares may harvest and process crab under the allocation. In addition, holders of catcher/processor IFQs may choose not to process harvested crab, instead delivering that unprocessed crab to any other processor. Use of catcher/processor shares in this manner would be akin to the use of Class B harvest shares, which do not require the receiving processor to hold IPQs. Catcher/processor shares would not have regional designations, so the delivery of these shares will not be regionally limited.

Holders of catcher/processor shares may also sever the harvesting and processing privileges, thereby creating separate Class A catcher vessel QS and PQS. These newly severed interests would create a privilege to annual IFQ allocations and IPQ allocations, which could be held by different individuals. When severed, the resulting QS and PQS must be designated for a region with both shares taking the same regional designation. Allowing the conversion of shares permits a catcher/processor shareholder to realize the full value of shares and provides greater flexibility in using the privileges. Adding a regional designation would prevent the creation of a new class of shares—Class A shares without a regional designation—for which the market would be extremely limited.

Some catcher/processors currently accept delivery of crab from catcher vessels for processing. PQS will be allocated based on this activity to the extent that vessels are eligible and have qualified processing history. In addition, catcher/processor will be permitted to purchase additional PQS for processing on board, provided that processing takes place within 3 miles of shore in the applicable region. The requirement of processing within 3 miles of shore is intended to ensure that regional benefits of processing activity are received by the region. The various rules affecting catcher/processors are intended to retain the historic role of catcher/processors in the BSAI crab fisheries, while at the same time protecting the interests of communities and other participants and beneficiaries of the fisheries.

## **Cooperatives**

The program would permit harvesters to form voluntary cooperatives associated with one or more processors holding PQS. Cooperatives are intended to facilitate efficiency in the harvest sector by aiding harvesters in coordinating harvest activities among members and deliveries to processors. Both sectors could realize efficiencies through well coordinated activities and flow of product. Harvesters can benefit by the cooperative relationship through which shares can be quickly traded under prearranged terms and conditions. These trades help harvesters consolidate small portions of their allocations on a single vessel when a small portion of each vessel's allocation is remaining. In the pollock cooperatives organized under the American Fisheries Act, harvesters have effectively coordinated harvests so that less than 1 percent of the TAC is unharvested. In the halibut and sablefish fisheries, which are managed with IFQs with limited leasing, harvesters have left more than 5 percent of the TAC unharvested. Processors can also benefit from cooperatives, which can coordinate deliveries so that processing crews and equipment have less down time between deliveries. Delivery coordination can also reduce queuing of harvesters waiting to offload their harvests, reducing deadloss of harvested crab.

A minimum membership of four unique QS holders would be required for cooperative formation. Cooperatives would be required to file a cooperative agreement with the Secretary of Commerce annually, after Council review. Once the filing is made, the cooperative would receive the annual allocation of its members in the applicable fisheries. Cooperative members would be permitted to leave a cooperative at any time after one season. Departing members would be permitted to retain their QS and the associated IFQ allocations, which they could bring to other cooperatives. Processors that associate with cooperatives would not be members of the cooperatives but would remain independent. A cooperative would not be bound to deliver any harvests to

an associated processor provided that the cooperative complies with any delivery requirements of the program associated with the harvest and processing shares. Processor association, however, is intended to facilitate delivery coordination.

Harvesters within a cooperative would be permitted to transfer shares freely and vessels on which cooperative shares are fished would not be subject to use caps. Shares would also be freely transferable between cooperatives, but these transfers would require filing with NOAA Fisheries Restricted Access Management office before shares could be fished.

New processors would be permitted to enter the fishery by purchasing PQS or IPQs, by purchasing crab harvested with Class B shares (which do not require delivery to a processor holding IPQs), or by purchasing CDQ crab. Entering processors would be permitted to associate with a cooperative and take delivery of crab harvested with Class A shares to the extent that they own IPQs to process that crab. Custom processing would be permitted under the cooperative program to facilitate greater efficiency in the processing sector.

### **Binding Arbitration**

BSAI crab fisheries have a history of contentious price negotiations. Harvesters have often acted collectively to negotiate an ex vessel price with processors, at times delaying fishing to pressure price concessions from processors. Participants in both sectors are interested in ending that practice in the rationalized fishery. Because the rationalization program is novel, the effects on price negotiations cannot be fully predicted. To ensure fair price negotiations under the new program, the Council has included a provision for binding arbitration for the settlement of price disputes. The binding arbitration system is intended to compel shareholders to offer reasonable terms and, if necessary, establish reasonable price when a negotiated price cannot be reached. In a system with a one-to-one relationship of harvest and processing shares, the market of persons for a shareholder to transact with will be limited. The concern is most acute for the shareholders from each sector that are last to contract for their shares. The system of arbitration would be available to settle price disputes between holders of Class A harvest shares (that restrict delivery to holders of unused IPQs) and holders of processor shares, because these are shares for which markets are limited. The Council has appointed a committee that is currently developing detailed options for the system of binding arbitration. After analysis, the Council will select a preferred arbitration option to incorporate into the rationalization program. The committee's primary objective in developing an arbitration program has been to ensure that the system is adequate to protect all participants in the fisheries. Under all of the options, each processor would act independently in its price negotiations with harvesters to prevent collusive behavior on the part of processors. Harvesters could act collectively as permitted by the 1934 Fishermen's Marketing Act.

NOAA General Council identified two concerns related to binding arbitration, which the committee has made significant efforts to address. The first concern is that administration of the arbitration program by National Marine Fisheries Service (NOAA Fisheries) or another federal agency would be very cumbersome, as each program change would require public decision making and the use of the related public notice and procedure for adopting the change. The committee has identified an approach to management, under which the Council and NOAA Fisheries would approve the framework and structure of the program. Direct program administration could be accomplished by participants. The program could be monitored through a series of reporting requirements, which could be relied on together with the public Council process to identify areas of program modification and adaptation. The second stated concern of NOAA General Counsel could also be addressed by this framework structure and monitoring approach. The second concern is that the program would entail over-involvement of the agency in private contracting and markets. The indirect management and monitoring of the arbitration process suggested by the committee would enable adequate oversight of the arbitration process, without over-involvement of the agency in private transactions. In short, the committee believes that it has developed a system of oversight and monitoring of the arbitration process that preserves an adequate and acceptable level of government involvement. A similar administrative system used for the

oversight of AFA cooperatives has proven highly successful. The committee believes the suggested framework would achieve similar success.

### **Captains Shares and the Crew Loan Program**

To protect captains' historical interests in the fisheries, eligible captains would be allocated 3 percent of the TAC under the program. To be eligible for an allocation a captain would be required to demonstrate both historical dependence on the fishery and recent participation. Allocations to captains would be based on participation in landings during the same qualifying years applicable to QS allocations. To ensure that these captain share allocations benefit at sea participants in the fisheries, holders of the underlying QS would be required to be on the vessel harvesting the IFQs. Additional provisions concerning the allocation of shares to captains, including rules governing eligibility for an allocation and transferability, are to be developed by a committee to be considered by the Council for incorporation into the rationalization program.

To further aid captains and crew a low interest loan program (similar to the loan program under the halibut and sablefish IFQ program) would be created. This program would be funded by 25 percent of the funds collected under the fee program applied to shareholders in the BSAI crab fisheries.

### **Regionalization**

To protect communities from the disruption of the current pattern of landings and processing that might be caused by changing the management of the BSAI crab fisheries, the Council has included a regionalization program as a part of its preferred alternative for rationalization. Completely constraining the geographic movement of activities would likely overly restrict consolidation of activities that might be desirable for reducing capacity and gaining efficiency in both the harvesting and processing sectors under rationalization. The regionalization program that the Council developed divides the fishery into two regions, allowing movement of activities within each region. The limited restraint on consolidation is intended to balance community interests against the need for consolidation and efficiency that motivated the change to a rationalized fishery.

Class A harvest shares (which require delivery to a processor holding unused IPQs) and processor shares would be regionally designated under the program. Crab harvested with regionally designated shares would be required to be delivered to a processor in the designated region. Likewise, a processor with regionally designated shares would be required to accept delivery of and process crab in the designated region. Class B harvest shares would not be subject to regional landing requirements. Crab harvested with Class B shares could be landed at any location under the program. Permitting harvesters greater latitude for landing crab harvested with Class B shares is intended to both simplify the logistical restrictions created by the regionalization program and provide harvesters with a broader market for that crab.

Two regional designations would be created in most fisheries. The North region would be all areas on the Bering Sea north of 56°20' N latitude. The south region would be all other areas. The regional designation is intended to preserve the historic geographic distribution of landings in the fisheries. Communities in the Pribilof Islands are the prime beneficiaries of the regionalization of the program.

Shares of both sectors would be designated based on the location of the activity that gave rise to the allocation. For example, qualified catch delivered in a region would result in shares designated for that region. Discrepancies in the North/South allocations in the two sectors would occur because of the differences in qualified catch caused by the qualification requirements and differences in qualification years for the sectors. This discrepancy would be corrected by redesignation of a portion of the harvest sector allocation. Only persons receiving harvest share allocations in both regions would have a portion of their shares redesignated. The number of a person's shares redesignated would be proportional to the total allocation in the region.

The Council's rationalization program would create exceptions to the North/South regional designations. In the Western Aleutian Islands (Adak) golden king crab fishery, 50 percent of the Class A shares and processing shares would be designated as Western shares. The remaining 50 percent of the Class A share and processing share allocations would have no regional designation and would not be subject to a regional delivery requirement.<sup>19</sup>

A second exception to the regionalization program would be the Bering Sea *C. bairdi* fishery, which would have no regional designation. This fishery is anticipated to be conducted primarily as an incidental catch fishery with the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries making any regional designation operationally difficult and potentially overly restrictive. The regional distributions of the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries are likely to determine the regional land pattern in the Bering Sea *C. bairdi* fishery.

Table 6 shows the distribution of shares under the regionalization program in fisheries with the North/South regionalization. Certain processing activity could not be regionally designated for this report. This processing took place on floating processors and catcher/processors, both of which are mobile, complicating the regional designation. The table shows that processing in the two Aleutian Islands fisheries was conducted almost exclusively in the South region. Processing in the Bristol Bay red king crab fishery is also almost exclusively conducted in the South, with less than 10 percent of processing in the North. Processing in the Bering Sea *C. opilio* fishery is split almost evenly between the two regions. Processing in the Pribilof red and blue king crab and the St. Matthew blue king crab fisheries are more concentrated in the North region, where between 65 and 75 percent of all harvests are landed and processed.

**Table 6** North/South Regionalization distribution of shares.

Fishery	Region	Share	Number of processors	Number of vessels
<b>Western Aleutian Islands (Adak) Red King Crab</b>	South	1.00*	8	24
	Unknown	*	2	6
<b>Bristol Bay Red King Crab</b>	North	0.095*	2	12
	South	0.905	15	245
	Unknown	*	7	46
<b>Bering Sea C. Opilio</b>	North	0.462	7	197
	South	0.468	18	209
	Unknown	0.070*	5	72
<b>Eastern Aleutian Islands (Dutch Harbor) Golden King Crab</b>	South	1.000	8	11
<b>Pribilof Red and Blue King Crab</b>	North	0.675*	4	74
	South	0.325	11	76
	Unknown	*	3	13
<b>St. Matthew Blue King Crab</b>	North	0.724	4	113
	South	0.276*	9	78
	Unknown	*	2	29

\* Value suppressed for confidentiality. All asterisked values are combined in a single cell for each fishery.

Source: NPFMC Crab Rationalization Database, Version 1, 2001

## Community Protection Options

In addition to the regionalization component, the Council action currently contains several different options intended to further protect communities. These will be evaluated as part of a trailing amendment package, including provisions requiring payments to communities by processors that wish to relocate processing activity, limits on pounds of IPQs that could be allocated in any season, and a first right of refusal to CDQ groups or community organizations for IPQs. If adopted these provisions would be intended to protect and grant benefits to individual communities (as opposed to regions) under the program.

<sup>19</sup> The Council could apply this designation either to all individual allocations regardless of landings history or based on historical landings of individual participants.

## Community Development Allocation

The program would also make changes in the allocations under the Community Development Quota program. The program would be broadened to include the Eastern Aleutian Islands (Dutch Harbor) golden king crab fishery and the Western Aleutian Islands (Adak) red king crab fishery. In addition, the allocations in all crab fisheries covered by the program would be increased to 10 percent from its current level of 7.5 percent.<sup>20</sup> CDQ groups would be required to deliver at least 25 percent of the allocation to shore based processors.

The Council motion also provides that an allocation would be made to the community of Adak from the Western Aleutian Islands (Adak) golden king crab fishery in an amount equal to the unused resource during the qualifying period. This allocation, however, would be capped at 10 percent of the total allocation in that fishery. Since approximately 12 percent of the GHL was unharvested during the qualifying period, the 10 percent cap would apply. This allocation to Adak is thought to be appropriate because that community was excluded from the CDQ program because of its history as a military community. The allocation to Adak is intended to stimulate economic activity, since the military has left the community leaving it with little economic base.

## Sideboards to Protect Participants in Other Fisheries

Rationalization of the BSAI crab fisheries will affect the fishing patterns of current participants. Some participants may sell or lease their shares. Other participants could change the timing of their fishing. In either case, rationalization could allow BSAI crab fishers to increase participation in other fisheries. To protect participants in these other fisheries, the Council will evaluate sideboards in a trailing amendment package. Sideboards will be considered for the Gulf of Alaska groundfish fisheries and the Bering Sea Korean haircrab fishery, the fisheries that are most likely to experience an influx of effort as a result of the rationalization program.<sup>21</sup>

Crab harvests by vessels that participate in the Bering Sea pollock fisheries are currently limited by sideboard restrictions established under the American Fisheries Act. Likewise, the quantity of crab processed by entities that participate in the Bering Sea pollock fisheries are also limited by sideboards established under the AFA. Since the crab fisheries would be rationalized, these sideboard restrictions would be removed under the crab rationalization program.

Rationalizing the BSAI crab fisheries will likely provide the opportunity for fishing and processing firms to consolidate their BSAI crab operations. As firms consolidate, some assets may be freed up to participate in fishing or processing activities they have not historically, or they may increase their levels of participation in fisheries outside the crab rationalization program. To protect the historic participants in those other fisheries, the Council is considering placing limits on the BSAI crab industries participation in fisheries outside the rationalization program. These limits are referred to as sideboards.

After an initial review of the opportunities that firms participating in the BSAI crab fisheries would have to expand into other fisheries, the Council has asked for additional analysis of potential impacts on the Gulf of

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<sup>20</sup> The increase would not apply in the Norton Sound fisheries, which are excluded from the rationalization program.

<sup>21</sup> The Korean hair crab fishery is a small fishery that is not included in the Federal Management Plan. The fishery is currently managed by the State of Alaska.

Alaska groundfish fisheries and the Bering Sea Korean hair crab fishery. Other fisheries were determined to be adequately protected, given the current management measures<sup>22</sup> already in place.

An analysis of the spillover impacts on the GOA fisheries (with emphasis on Pacific cod) as well as the Korean hair crab fisheries will be conducted prior to the release of the initial review draft of the EIS/RIR/IRFA in October 2002. Based on that analysis the Council will then be in a position to make a decision on the need for sideboard protections when it makes its final decision on the crab rationalization program. Sideboard protections could then be implemented as part of the overall crab rationalization program.

### **Data Collection**

The Council approved the development of a comprehensive, mandatory data collection system as part of the rationalization program. As envisioned, the program will mandate the collection of data (including cost, revenue, ownership, and employment data) from both harvesters and processors that participate in the BSAI crab fisheries. The data would provide analysts, managers, scientists, and the Council with adequate information to study the impacts of the rationalization program and develop any future amendments to the program.

A group of economists and other fisheries managers has been working with industry to develop the data collection program. The inter-agency workgroup has developed the following recommendations for the program.

1. Statutes be changed to require (or at a minimum allow) NOAA Fisheries and the NPFMC to collect these data from fish harvesters and processors.
2. The requirement to collect these data should include a time certain start date when the data collection would commence.
3. The requirement to collect historic data should be included in any legislation authorizing this program.
4. Authority to protect the confidential data from forced public release should be included in the legislation.

Each of these points is discussed in more detail.

Implementing the proposed program would require changes to the Magnuson-Stevens Act as well as other laws governing the collection of data from fishermen and processors. Changes to the Magnuson-Stevens Act would be required in Section 303(b)(7) and Section 402(a). Section 303(b)(7) prohibits the Council and NOAA Fisheries from collecting economic data from fish processors. Section 402(a) prohibits the Council from requesting that the Secretary implement an information collection program for the fishery which would provide the types of "information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations". Because other laws may also prohibit the Council and NOAA Fisheries from collecting these data, it may be appropriate to include a general statement that the authority and requirement to collect these data would supercede other Federal laws that may be in conflict.

Providing a time certain start date for the collection of these data would help to ensure that the program is implemented quickly. The goal of the program is to gather the data necessary to provide an understanding of

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<sup>22</sup>These measures include the License Limitation program (BSAI groundfish and scallop fisheries), Pacific cod allocations by gear type in the BSAI, AFA rationalization of the BSAI pollock fishery, and vessel length and gear restrictions in several State waters fisheries.



how crab rationalization changed the fishery and the impacts it has had on the participants<sup>23</sup>. To accomplish this goal a time series of data that starts well prior to the implementation of the program is needed. Starting the program as soon as possible will help meet this objective.

Also related to the need to have adequate data on the fishery prior to implementation of crab rationalization is the request that NOAA Fisheries and the Council be authorized and required to collect historic data. Currently NOAA Fisheries and the Council are unable to require the submission of data related to the activity of harvesters and processors in previous years. The authority and requirement to collect these data would provide the information needed to better understand the pre-rationalization fishery. Requiring that the data are submitted would also help to protect the confidentiality of the data.

To provide persons supplying these data with an assurance that these data will be held as confidential, strong protections on their release need to be implemented. Members of industry have expressed concern that the sensitive data being requested might be released to persons<sup>24</sup> who were not initially intended to access the data. Alleviating these concerns is an important part of developing the data collection program. Authority to protect these data from forced release once collected by NOAA Fisheries and the Council would help reduce the concerns of industry. Well defined limits on the release of the data could also help the agencies in developing their data sharing agreement.

### **Program Review**

Given the novelty of the program, the Council is acutely sensitive to the need for monitoring the program's success. Under the program, NOAA Fisheries Restricted Access Management in conjunction with the State of Alaska would be directed to produce annual reports concerning the program and a preliminary report on the program at three years. A full review of the program would be undertaken at the first Council meeting in the fifth year after implementation of the program. This fifth year review would be intended to objectively measure the success of the program in addressing the concerns and achieving the goals and objectives specified in the Council's problem statement and the Magnuson-Stevens Act standards. Impacts of the program on vessel owners, captains, crew, processors, and communities would be examined. The review would include an assessment of options to mitigate negative impacts of the program. Additional reviews would be conducted every five years.

### **Conclusion**

In recent years, participants of the BSAI crab fisheries have experience economic hardships because of stock declines and overcapitalization. The Council has worked hard to address these problems, evaluating a variety of management changes over several years. Recognizing the problem, Congress directed the Council to evaluate several different rationalization alternatives, including individual fishing quotas, processor quotas, cooperatives, and the allocation of quotas to communities. In response, the Council developed a suite of alternatives for rationalization of the BSAI crab fisheries. After thorough analysis of the options and nearly three years of discussion by industry and Council committees, the Council selected a preferred alternative for rationalization of these fisheries. The preferred alternative is a carefully crafted program that balances the interests of several identifiable groups that depend on these fisheries. The program is a "voluntary three pie cooperative" with protections to harvesters, processors, communities, and captains. The novelty of the program has compelled the Council to include several safeguards into the program, including a binding arbitration program for the

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<sup>23</sup> Participants include harvesters, processors, communities, and crew. To the extent possible impacts on related business would also be considered.

<sup>24</sup> Persons other than the staffs of federal and state agencies directly involved in the management of the fisheries under the Council's authority and their contractors.

resolution of price disputes and extensive data collection and review programs to assess the success of the rationalization program. These safeguards, together with the Council's continuing development of the program through a series of ongoing amendments and clarifications, demonstrate the Council's commitment to a fair and equitable rationalization program, which will protect the interests of all sectors that depend on the BSAI crab fisheries.