MEMORANDUM

TO: Council, SSC, and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME
14 HOURS

DATE: April 6, 2002

SUBJECT: Crab Rationalization

ACTION REQUIRED

(a) Initial review of the analysis of the crab rationalization alternatives.
(b) Discuss process and suite of alternatives for the EIS.

BACKGROUND

At its June 2001 meeting, the North Pacific Fishery Management Council (Council) adopted a suite of alternatives, elements and options for analysis of a rationalization program for the Bering Sea and Aleutian Islands (BSAI) crab fisheries. After status reports and reviews at its December 2001 and February 2002 meetings, the Council amended its motion to its current form (Item C-5(a)) and scheduled this item for initial review at this meeting. A document was provided to the Council family prior to the meeting. If the document is deemed to be sufficient, selection of a preferred alternative on the proposed crab rationalization alternatives would be scheduled for the June 2002 Council meeting.

The proposed action would develop an IFQ or cooperative program to manage the BSAI crab fisheries. A change in management from the current License Limitation Program (LLP) may be necessary to alleviate problems of resource conservation, bycatch and handling mortality, excessive harvesting capacity, lack of economic stability, and safety that have arisen because of the race to fish that occurred under the open access fishery prior to the LLP and under the current LLP management structure.

Final action for this package is unlike most final actions taken by the Council, since Congress may need to modify their moratorium on IFQ programs (and perhaps jurisdiction over inshore processors) before the Council could submit either an IFQ or cooperative alternative to the Secretary of Commerce (SOC). Once the Council's preferred alternative is identified, it would then need to be melded into the crab EIS, that is also currently being developed, as the preferred alternative. It is expected that this can be completed during the summer of 2002 for action by the Council in October, so that the formal EIS/RIR/IRFA package could be submitted to the SOC by the end of this year (assuming Congressional action allowing the Council to move forward at that time).

The analysis considers three overriding alternative management structures for the BSAI crab fisheries; status quo (or continued management under the LLP), an IFQ program, or a cooperative program. The IFQ program alternative includes options defining either a one-pie harvester only IFQ program or two-pie program, which would include both harvester shares and processor shares. The cooperative program alternatives include two structures that could be selected. The Voluntary Cooperative alternative is a program that would allocate shares to harvesters and processors and allow each harvester to join a cooperative with one or more other harvesters associated with one or more processors. The Plurality Assignment Cooperative alternative is a program that would allow each harvester to join a cooperative associated with the processor that it delivered

the most crab to during a specified qualifying period. Harvesters that join a cooperative would receive an allocation based on qualifying catch history. Harvesters that elect to forgo joining a cooperative would be limited to participating in an open access fishery. This program alternative includes several different options that would protect processor interests to varying degrees and that would define movement between cooperatives.

Initial review of the analysis of the crab rationalization alternatives

The current draft of the analysis of the crab rationalization alternatives is similar in format and content to the February 2002 draft. To assist in review of the document, a summary of the changes in the current draft from the February 2002 draft is provided at the end of this summary.

Introduction (Section 1)

At its June 2001 meeting, the North Pacific Fishery Management Council adopted a suite of alternatives, elements and options for analysis of a rationalization program for the Bering Sea and Aleutian Islands (BSAI) crab fisheries. After a status report and pre-initial review at its December 2001 and February 2002 meetings, the Council amended its motion to its current form and scheduled this item for initial review at its April 2002 meeting. The document is the initial review draft of the analysis of those alternatives. If the document is deemed to be sufficient, selection of a preferred alternative for the proposed rationalization of the BSAI crab fisheries would be scheduled for the June 2002 Council meeting.

The proposed action would develop an IFQ or cooperative program to manage the BSAI crab fisheries. A change in management from the current License Limitation Program (LLP) may be necessary to alleviate problems of resource conservation, bycatch and handling mortality, excessive harvesting capacity, lack of economic stability, and safety that have arisen under the race to fish that has occurred LLP management.

Final action for this package is unlike most final actions taken by the Council, since Congress may need to modify their moratorium on IFQ programs (and perhaps jurisdiction over inshore processors) before the Council could submit either an IFQ or cooperative alternative to the Secretary of Commerce (SOC). Once the Council's preferred alternative is identified, it would then need to be melded into the crab EIS that is also currently being developed as the preferred alternative. It is expected that this can be completed during the summer of 2002 for action by the Council in October, so that the formal EIS/RIR/IRFA package could be submitted to the SOC by the end of this year (assuming Congressional action allowing the action by that time).

The analysis considers three overriding alternative management structures for the BSAI crab fisheries; status quo (or continued management under the LLP), an IFQ program, and a cooperative program. The IFQ program alternative includes options defining either a one-pie, harvester only IFQ program or a two-pie program, which would include both harvester shares and processor shares. Two cooperative program alternatives are analyzed. The Voluntary Cooperative alternative is a program that would allocate shares to harvesters and processors and allow each harvester to join a cooperative with one or more other harvesters associated with one or more processors. The Plurality Assignment Cooperative alternative is a program that would allow each harvester to join a cooperative associated with the processor that it delivered the most crab to during a specified qualifying period. Harvesters that join a cooperative would receive an allocation based on qualifying catch history. Harvesters that elect not to join a cooperative would be limited to participating in an open access fishery. This program alternative includes several different options that would protect processor interests to varying degrees and that would define movement between cooperatives. The analysis examines several different aspects of the proposed programs and their impacts on the fisheries.

Background (Section 2)

As a foundation for the analysis of alternatives, the analysis contains an extensive background section that describes the current conditions in the different fisheries under consideration for rationalization. The section includes subsections describing the affected environment, fishery biology, fishery management, the harvesting sector, the processing sector, community and social impacts, ex vessel prices, and various market and economic conditions. **Table E1** shows the maximum GHL, the minimum GHL, and closure years (if any) for the fisheries under consideration for rationalization.

Table E1: Maximum and Minimum GHLs for various crab fisheries and years the fishery was closed

Fishery	Maximum GHL (millions of pounds)	Minimum GHL (millions of pounds)	Closures (Years/Season)
Bering Sea Snow Crab (*C. opilio*)	33.3 (1992)	25.3 (2001)	None
Bristol Bay Red King Crab	18 (1991)	5 (1996)	1994, 1995
Bering Sea Tanner (*C. bairdi*)	39.2 (1991/92)	2.2 (1996)	1997, 1998, 1999, 2000, 2001
Pribilof Islands Red King Crab	3.4 (1993)	1.25[a] (1998)	1991/92 & 1999, 2000, 2001
Pribilof Islands Blue King Crab	2.5[a] (1995)	1.25[a] (1998)	1991/92 & 1999, 2000, 2001
St. Matthew Blue King Crab	5 (1997)	2.4 (1995)	1999, 2000, 2001
Western Aleutian Islands (Dutch Harbor) Golden (Brown) King Crab	3.2 (1996, 1997, 1998)	3.0 (1998, 1999, 2000, 2001)	None
Eastern Aleutian Islands (Adak) Golden (Brown) King Crab	2.7 (1996, 1997, 1998)		None
Eastern Aleutian Islands (Adak) Red King Crab			1996/97, 1997/98, 1999/2000, & 2000/2001

[a]Combined red and blue king crab.

Table E2 reports the weighted average annual ex-vessel price of the various crab fisheries under consideration. These data were derived from ADF&G fishtickets. The data in the report generally show that the mid-1990s were in general strong years for ex-vessel prices. Ex-vessel prices also increased in 1999 and 2000 (relative to the 1997 and 1998) except in the Bristol Bay red king crab fishery.

Table E2: Weighted average annual ex-vessel prices from ADF&G fishtickets (prices have not been adjusted for inflation)

Year (Fishing Season)	WAI golden king[1]	Adak red king[1]	Bristol Bay red king[1]	*BS C. opilio*[2]	*BS C. bairdi*[2]	EAI golden king crab[2]	Pribilof blue king[2]	Pribilof red king[2]	St. Matthew blue king[2]
1998-1999	$ 2.04	closed	$ 6.26	$ 0.56	closed	$ 1.87	$ 2.34	$ 2.39	$ 1.87
1999-2000	$ 3.14	closed	$ 4.81	$ 0.88	closed	$ 3.22	closed	closed	closed
2000-2001	$ 3.15	closed	$ 4.14	$ 1.85	closed	$ 3.50	closed	closed	closed

1) Fishing seasons span two years
2) The fishing seasons that took place in one calendar year are identified by the first year listed in the year column.

Table E3 is a summary of the first wholesale prices derived from Commercial Operator Annual Report data. These prices were calculated by dividing the total first wholesale value reported by the processor by the total pounds of the product form produced.

Table E3: First Wholesale Crab Prices by Species and Product Form, 1991-2000 (prices have not been adjusted for inflation)

Species	Product	1998	1999	2000
Red King Crab	Shellfish Sections	$ 5.52	$11.25	$ 9.11
	Whole	$ 3.83	$10.69	$ 7.74
Blue King Crab	Shellfish Sections	$ 4.80	Conf.	Conf.
Golden King Crab	Shellfish Sections	$ 4.24	$ 6.90	$ 7.22
	Whole	$ 4.90	$ 3.79	$ 4.60
C. bairdi	Shellfish Sections	$ 4.81	$ 4.23	$ 5.83
	Whole	$ 2.95	$ 3.71	$ 3.33
C. opilio	Shellfish Sections	$ 2.03	$ 2.92	$ 4.16
	Whole	$ 2.05	$ 1.06	

Source: Commercial Operator's Annual Reports (1998-2000)

The harvesting and processing activity in the BSAI crab fisheries contributes to the economies of numerous communities in Alaska, Washington, and Oregon. Table E4 shows the distribution of value of harvests by region of vessel ownership to the extent feasible given data confidentiality considerations. Table E5 shows the regional distribution by value of processing by processing location. Mobile processors (for which community or regional attribution of processing location is problematic) comprise a significant proportion of total processing effort, and confidentiality restrictions allow local fixed processor totals for only two communities. As these tables suggest, the social and economic links to harvesting and processing sectors vary greatly by community and region, as does engagement with the fisheries through support service sector activities.

Table E4: Average Annual Value of Harvest for IFQ Crab Vessels in Various Fisheries Categories, by Fisheries Category and Community of Vessel Owner -- Alaska, Washington, and Oregon

Fishery Category	Alaska					Washington		Oregon		Grand Total
	Anchorage	Homer	King Cove/ Sand Point	Kodiak	Other Alaska	Seattle-Tacoma CMSA	Other Washington	Newport	Other Oregon	
Bristol Bay Red King Crab	$742,444	$1,089,341	$745,632	$4,339,152	$1,150,008	$20,094,192	$1,265,141	$1,377,501	$255,932	$31,380,338
Bering Sea Opilio Crab	$2,515,672	$3,693,719	$2,880,714	$16,544,540	$5,213,727	$90,650,428	$5,569,882	$4,602,465	$2,257,595	$123,739,514
Bering Sea Tanner Crab	$192,607	$563,492	$428,929	$2,929,761	$331,880	$11,759,320	$572,741	$537,438	$491,305	$18,337,467
BSRKC/BSST group	$3,450,722	$5,396,553	$3,835,276	$23,813,453	$5,595,610	$114,553,351	$5,469,123	$5,617,398	$3,344,823	$173,466,319
Other 6 IFQ Crab group	*	$302,773	$258,456	$4,851,370	$600,223	$11,415,832	$272,047	$3,035,245	*	$21,596,704
All 9 IFQ Crab group	$4,143,053	$5,699,326	$4,093,732	$28,664,823	$7,595,833	$125,979,193	$5,741,170	$9,652,645	$3,513,240	$195,053,024

Notes: (a) * = cells that must be suppressed due to confidentiality concerns; (b) Average annual community harvest values are computed using 1991-2000 (that is, including years various fisheries were closed; (c) IFQ crab fishery and group vessel counts are not additive, as some vessels fish several fisheries.
Source: Summarized from the NPFMC Bering Sea Crab Data Base / 2001_1

Table E5: Total Value in Dollars of Crab Processed, 1991-2000, by City/Port Category and QS/IFQ Crab Fishery

CITY2	QS/IFQ Crab Fishery									
	Adak Brown	Adak Red	BB Red	BS Opilio	BS Tanner	Dutch Brown	Pribilof Blue	Pribilof Red	SM Blue	Grand Total
OP	*	*	$31,911,659	$191,749,219	$27,787,852	*	*	*	$5,387,399	$305,415,404
Floating	*	*	*	$236,197,927	*	*	*	*	*	$328,631,328
Kodiak		*	*	*	$11,706,595		*	*	*	$35,420,388
Unalaska	$26,485,948	*	$150,697,153	$402,331,228	$75,893,402	$69,023,225	*	$7,641,142	$12,052,640	$769,427,591
Other South	*	*	*	*	$62,790,716	*	*	*	*	$318,576,029
South Combined	*	*	$280,886,800	$544,154,137	$140,390,702	*	*	*	*	$1,123,424,009
North		*	*	$445,046,386	*		*	*	*	$515,828,351
Grand Total	$88,375,383	$13,493,699	$367,814,418	$1,417,147,660	$318,228,294	$102,155,799	$7,476,001	$26,504,807	$70,701,739	$2,273,259,091

Notes: (a) * = cells must be suppressed due to confidentiality, (b) "OP" is the catcher processor sector, which is assigned its own QS/IFQ and is not regionalized, (c) "Floating" are mobile processors which could not be assigned city or port locations, (d) "Other South" includes all southern locations except Kodiak and Unalaska, (e) "North" includes St. George, St. Matthew, and St Paul. Because of confidentiality, only St. Paul (and no North or Overall Totals) or Grouped North (and other totals) can be provided.
Source: Summarized from the NPFMC Bering Sea Crab Data Base / 2001_1

Biology, Management, Environmental, and Safety Implications (Section 3.2).

The analysis includes an extensive discussion of the biological, management, environmental, and safety impacts of rationalization of the BSAI crab fisheries. This section examines the appropriateness of the different fisheries for rationalization, potential changes in deadloss, size limits, incidental catch, seasons, pot limits, the potential impacts of overlapping seasons of different species, and the effects of rationalization on rebuilding programs. The section also examines the environmental factors including the impacts of rationalization on endangered species and marine mammals. The section concludes with discussions of the division of management authority between State and federal managers and the impacts of rationalization on safety in the fishery. The analysis in this section was provided to Council staff by representatives of State of Alaska ADF&G and NMFS.

The analysis suggests that the Bering Sea *C. opilio*, Bristol Bay red king crab, Bering Sea *C. bairdi*, Pribilof blue king crab, Pribilof red king crab, St. Matthew blue king crab, and the two Aleutian Islands golden king crab be included in the rationalization program. The Aleutian Islands red king crab, the Aleutian Islands *C. bairdi*, the Pribilof golden king crab, and Bering Sea Tanneri fisheries are suggested for exclusion from rationalization.

Rationalization should have environmentally-friendly impacts on the crab stocks and their habitat as long as concerns over highgrading and ghost fishing from lost pots do not evolve. Managers are concerned that highgrading may occur when the time pressures are removed from the fishery. Fishermen will be more likely to keep only the highest valued catch since any catch landed will be counted against their quota. Therefore, keeping second quality crab (especially when there are large differences in ex-vessel price) might not maximize profits. Under the current low GHLs and race-for-fish management system all marketable crab are currently being retained. The State of Alaska feels that new regulations will likely need to be developed to protect the biological integrity of the stock. They also indicate that onboard observer coverage and dockside sampling are needed to determine if changes in fishery selectivity occur and the mechanisms that cause those changes. Pot limits may be relaxed in a rationalized fishery. For pot limits to be changed the BOF would need to be petitioned or a proposal would need to be submitted to the BOF requesting that pot limits be modified.

Seasons for the different species proposed for inclusion in the rationalization program are considered. The primary biological objective in scheduling seasons is avoidance of mating and molting. Table E6 shows the molting and mating seasons for the different species being considered for rationalization. The analysis also considers the use of concurrent seasons for species included in the rationalization program. An advantage of multispecies fisheries is the potential decrease in mortality of discards. As crab fishing seasons are

lengthened the possibility of gear conflicts with trawl and longline vessels increase. Those conflicts would need to be monitored to ensure that they were not increasing to an unacceptable level.

Table E6: Bering Sea Crab Fishery Molting/mating time periods as determined by the Crab Plan Team in September 2001

Species	Molting/mating time period
C. opilio	May 15 to July 31
C. bairdi	April 1 to July 31
blue king crab	February 1 to July 31
red king crab	January 15 to June 30
red king crab (Norton Sound)	September 15 to October 31
golden king crab	January 1 to December 31

The analysis also supports provisions which would create no allowance for overages or underages on the principle that overages and underages should be fully avoidable in a rationalized fishery. The analysis also supports full accounting of deadloss. The analysis suggests that the slower pace of a rationalized fishery will improve sorting of crab by gear, thereby decreasing handling mortality and deadloss.

The analysis states that the rationalized fisheries would need to be managed with TACs instead of the current GHL management. TAC management would provide certainty of allocations necessary to realize the full benefits of rationalization. The allocation of a minor open access fishery, as proposed in the Plurality Assignment cooperative program alternative, could also be problematic for managers that are required to monitor a small GHL in an open access fishery. The more precise management under a TAC (without provision for overages) could also aid rebuilding efforts in the fisheries.

Monitoring participants in a rationalized fishery would be challenging due, in part, to the extended seasons. The analysis supports the use of Vessel Monitoring Systems (VMS). VMS would not only improve monitoring activities of participants but also would improve data collection. ADF&G has suggested that the costs of this system could be borne by either participants in the fisheries or the federal government. Additional monitoring of landings may also be required. Observer requirements and the disbursement of costs of those requirements will also need to be assessed in a rationalized fishery.

The analysis assesses the need to maintain a minimum fleet size to ensure that harvests reach an optimum level. Caps on ownership could be used to ensure that fleets are maintained at a size necessary to maintain harvests in the event excessive stocks require additional harvesting power.

The section includes a discussion of the interaction of State and federal management and monitoring of the fisheries. Limitations of delegation of management authority by the federal government may require that NMFS assume responsibility for allocations of quota in the fisheries. Setting of TACs (or GHLs), regulating fishing activity, and collecting harvest date for monitoring harvest limits and enforcement of regulations are currently conducted by the State and could, for the most part, continue to be subject to State management in a rationalized fishery. Further detail on the joint management of the fisheries is provided in this section.

The section concludes with a discussion of the implications of rationalization on safety in the fisheries.

The Allocation of Harvest Shares (Section 3.3).

This section of the analysis examines the different alternatives for allocating harvest shares. The analysis examines the rules that define eligibility to receive an initial allocation and the calculation of those allocations. Both proposed options would base eligibility on whether a vessel has met the requirements for an LLP license. Table E7 shows the number of endorsed LLP licenses in the fisheries and the estimated number of vessels that would qualify for a crab endorsed LLP license and hence an initial allocation in each fishery being considered for rationalization.

Table E7: LLP licenses and the Estimated Number of Vessels that Qualify for LLP licenses endorsed for BSAI Crab Fisheries.

Fishery	Number of Permanent LLP Licenses	Number of Interim LLP Licenses	Number of Vessels Estimated to Qualify for an LLP License
WAI (Adak) Golden King Crab	27	14	23
WAI (Adak) Red King Crab	24	22	28
Bristol Bay Red King Crab	260	89	266
Bering Sea *C. Opilio*	260	93	256
Bering Sea *C. Bairdi*	260	93	266
EAI (Dutch Harbor) Golden King Crab	27	14	20
Pribilof Blue King Crab	110	48	84
Pribilof Red King Crab	110	48	122
St. Matthew Blue King Crab	154	59	180

Source: NMFS Alaska Region RAM Office and State of Alaska ADF&G Fish ticket files.

The sum of permanent and interim licenses is the maximum number of vessels that could qualify. The "number of vessels estimated to qualify for an LLP license" is the minimum number that could qualify, as that does not include vessels that rely on Amendment 10 exemptions for qualification, which define limited exemptions and circumstances when activities from multiple vessels may be combined to meet the qualification criteria. The consistency of the different allocation options with the current LLP management is discussed. The section also includes quantitative analysis of the allocations under the different qualifying year options for each fishery. The analysis shows that the allocations in the Bering Sea *C. opilio*, Bristol Bay red king crab, Bering Sea *C. bairdi*, Pribilof blue king crab, St. Matthew blue king crab, and Western Aleutian Islands (Adak) red king crab are very similar under all of the qualifying year options. In the Pribilof red king crab fishery, the allocation to the leading four vessels varies somewhat under the different options. In the two Aleutian Islands golden king crab fisheries (particularly in the Western subdistrict), the allocations under the various options show greater variation. Graphical representations of the allocations and descriptive statistics appear in the section. Graphs included in this section show groupings of four vessels to protect confidential data. The same vessels are not always in the same groups for the different allocation options. The portion of the total allocation to catcher/processors in each fishery under each option is also shown.

The IFQ Program Elements (Section 3.4).

This section analyzes the options for development of an IFQ program. The section includes analyses of the various measures that define the rights to own, purchase, and use harvest shares in the different fisheries. The section includes an analysis of the two-pie IFQ alternative, including the initial allocation, transfer rights, and ownership and use caps on processor shares and limits on vertical integration.

Harvest Shares

The analysis examines use and ownership caps on harvest shares in the different fisheries at the initial allocation. These caps are intended to limit consolidation of harvest shares, in part, to ensure competition in the harvest sector. This analysis is limited by the poor availability of vessel and LLP license ownership information. Based on available data, no persons would exceed a 5 percent ownership cap in the Bering Sea

C. opilio, Bristol Bay red king crab, Bering Sea *C. bairdi*, or St. Matthew blue king crab fisheries. Four persons would exceed the 5 percent cap in the Pribilof blue king crab fishery. Data concerning the number of persons exceeding an 8 percent or 5 percent cap in the Pribilof red king crab fishery cannot be shown because of confidentiality restrictions on the release of data. Several persons would exceed a 1 percent cap in all of these fisheries. In the Western Aleutian Islands golden king crab fishery, the number of persons exceeding a 40 percent, 20 percent, or 10 percent cap cannot be shown because of confidentiality restrictions on the release of data. In the Eastern Aleutian Islands golden king crab fishery, no persons would exceed the 40 percent cap. The number of persons exceeding the 20 percent cap in this fishery cannot be shown because of confidentiality restrictions on the release of data. If the allocation in Aleutian Islands golden king crab fisheries is based on the combined participation in both areas, no persons would exceed the 40 percent cap and the number of persons exceeding the 20 percent cap cannot be shown because of confidentiality restrictions on the release of data.

Processing Shares

A complete analysis of the two-pie IFQ program is also contained in this section. Program elements including the initial allocation of shares, transfer rights, and ownership and use caps are examined. Two options for allocating processing privileges to catcher/processors are proposed. Under the first, catcher/processors would be allocated processing shares in the same manner as those shares are allocated to other processors. Alternatively, catcher/processors could be allocated a "catcher/processor share" that includes both harvest and processing privileges.

Option under which catcher/processors are allocated processing shares

If catcher/processors are allocated processing shares, in the Bering Sea *C. opilio*, the Bristol Bay red king crab, and the Bering Sea *C. bairdi* fisheries slightly more than 30 processors will receive an allocation. The leading four processors would receive an average allocation of between 12 and 14 percent depending on which qualifying year option is selected. The average allocation would be less than 5 percent and the median[1] allocation would be approximately 1 percent or less. In the Pribilof red king crab, Pribilof blue king crab, and St. Matthew blue king crab fisheries approximately 15 processors would receive allocations. The leading four processors would receive on average less than 20 percent of the total allocation. The median allocation would be less than 5 percent. In the two Aleutian Islands golden king crab fisheries, between 8 and 13 processors would receive an initial allocation. The four largest processor allocations would be between 20 and 25 percent of the total allocation. In the Eastern Aleutian Islands fishery, the median allocation would be between approximately 4 and 8 percent of the total allocation. In the Western Aleutian Islands fishery, the median allocation would be less than one percent.

Ownership and use caps on processor shares are analyzed based on the initial allocations. These caps are intended to limit consolidation of processing shares, in part, to ensure competition in the processing sector. The analysis is limited because of confidentiality restrictions on the disclosure of data. The analysis shows that with the exception of the Western Aleutian Islands (Adak) golden king crab fishery, no processors would exceed a 50 percent cap based on the initial allocation. In the Bering Sea *C. opilio*, the Bristol Bay red king crab, the Bering Sea *C. bairdi*, the Pribilof red king crab, and the Pribilof blue king crab fisheries, no processors would exceed a 30 percent cap. A complete analysis of the caps appears in this section.

The section also examines vertical integration in the crab fisheries by analyzing the allocation of harvest shares to persons affiliated with processors. The Council has proposed limiting processor ownership of harvest shares to 8, 5, and 1 percent of the total allocation of harvest shares to restrict vertical integration in the fisheries. In the Bering Sea *C. opilio*, the Bristol Bay red king crab, and the Bering Sea *C. bairdi* fisheries

[1] The median allocation is the allocation at the midpoint of the distribution, for which half of the allocations would ber larger and half of the allocations would be smaller.

in excess of 40 vessels are affiliated with processors (including independently owned catcher/processors). Under almost all of the allocation options between 4 and 5 processors would exceed a 1 percent cap on harvest share ownership in these fisheries. No processors would exceed a 5 percent cap in the Bering Sea *C. opilio* or the Bering Sea *C. bairdi* fisheries. In the Aleutian Islands golden king crab fisheries, between 1 and 4 processors would receive harvest share allocations depending on the allocation option selected. In the Western subdistrict, the number of processors exceeding any caps cannot be shown because of confidentiality restrictions. In the Eastern subdistrict, no processors would exceed either an 8 or 5 percent cap. Under the option that would determine the allocation based on combined harvests in the two subdistricts, the number of processors exceeding any caps cannot be shown because of confidentiality restrictions. In the Pribilof red king crab and Pribilof blue king crab fisheries, between 4 and 6 processors would receive an allocation of harvest shares. In the Pribilof red king crab fishery, no processors would exceed an 8 percent cap. No further information on the caps can be disclosed for this fishery. In the St. Matthew blue king crab fishery, 11 processors would receive an allocation of harvest shares. No processors would exceed either an 8 or 5 percent cap in this fishery. The number of processors exceeding the 1 percent cap cannot be disclosed. In the Western Aleutian Islands red king crab fishery, three processors would receive an initial allocation of harvest shares. No information concerning the number of processors exceeding the proposed share caps can be disclosed for this fishery.

Option under which catcher/processors are allocated catcher/processor shares

Cooperative Program Alternatives (Section 3.5). This section examines the cooperative program alternatives advanced in the Council motion. The section begins with a brief discussion of the cooperative alternatives that the Council has considered and excluded from analysis. These cooperative program options were deemed unsuitable for the crab fisheries. These options would potentially distort allocations from the historical participation, providing limited share protection to both harvesters and processors.

More importantly, the section examines the Voluntary Cooperative program and Plurality Assignment Cooperative program currently under consideration. The Voluntary Cooperative program would allocate harvest and processing shares similar to those under the IFQ program alternatives. The program would permit harvest share holders to form cooperatives associated with one or more processors holding a processing allocation. The program is intended to provide maximum flexibility, allowing the development of cooperative arrangements between participants that see an advantage to creating those arrangements. These agreements could help to ensure that more of each person's allocation is more fully harvested. This would be accomplished though pooling remaining shares at the end of a season so one vessel from the cooperative could be sent out to "mop-up" the remaining quota. This has been done in the BSAI pollock cooperatives, where the percentage of the TAC being left unharvested each year is very low relative to the halibut and sablefish IFQ programs.

Under the Voluntary Cooperative program share allocations would be made to both harvesters and processors regardless of whether cooperative agreements are entered. Because of this allocation system there would be no "open access" fishery. Persons that do not elect to join a cooperative would still receive a protected allocation.

The second cooperative program (the Plurality Assignment Cooperative program) would permit each harvester to enter a single cooperative associated with the processor to which he/she delivered the most pounds of crab during the qualifying period. Allocations are made to each cooperative based on the catch history of its members. Allocations of harvesters that do not join a cooperative are made to an open access fishery that is fished competitively by harvesters that do not join cooperatives. Because of the eligibility rules and a requirement that a cooperative have at least two members, over half of the processors that received deliveries from the crab fisheries during the qualifying period (but were not the recipient of the most catch from at least two harvesters) would not be able to associate with a cooperative in the first year of the program. Also under a 1994-99 qualifying period, five vessels would not be eligible to join a cooperative because they were the only vessel qualified to form a cooperative with their primary processor. These

vessels would be required to participate in an open access fishery the first year of the program. Each year, participants in the open access fishery would become eligible to join a cooperative associated with the processor to which it delivered the most crab in the open access year.

The all-or-nothing allocation of catch history to processors under this alternative could result in disparities between processing history and processor allocations. Historical data show that many catcher vessels made deliveries to multiple processors over the qualifying period. For example in the Bristol Bay red king crab for the open season from 1993-1999, a total of 255 vessels had qualifying landings. Only 163 of the vessels delivered at least 50 percent of their catch to the same processor. That means that only about 64 percent of catcher vessels delivered at least half of their catch to one processor. Under the Plurality Assignment Cooperative all the catch would be assigned for delivery to a single processor. To lessen the impact of requiring all of the catch to be assigned to a specific processor, alternatives are included that would require a cooperative to deliver a set percentage (ranging between 10 and 100 percent) of its allocation to its associated processor. Members of the catcher vessel sector have indicated that requiring only 80 percent of the catch to be delivered to the cooperative's processor would benefit harvesters, in terms of bargaining power and maintaining traditional markets, much more than requiring a 90 percent delivery rate. Processors on the other hand feel that as the percentage decreases from 100 percent they tend to be in a much weaker position to negotiate prices and make long term plans for their operations.

This program is difficult to characterize because several options have been proposed with vary degrees of connection between harvesters in a cooperative and the associated processor. The most stringent option would require delivery of all or most of a cooperatives allocation to an associated processor. The most lenient option would not require any deliveries to the associated processor. Similarly, the program has options defining the ability of harvesters to move between cooperatives. These range from unrestricted movement, subject only to the approval of the cooperative to which the harvester is moving, to options that require a year in the open access fishery.

The alternatives for allocation of shares to vessels under the cooperative program are the same as under the IFQ alternatives. Therefore, the discussion of quota allocations is only covered in the section on IFQ allocations.

Regionalization (Section 3.6) - This section examines the two alternatives that would establish a regionalization program. Regionalization of the fisheries is intended to protect community interests. The first alternative would divide the fishery into north and south regions, creating a requirement that landings and processing activity be distributed between the regions in accordance with historic participation patterns. Estimates of the distribution of shares under the alternatives are provided. North allocations in the Pribilof red king crab and Pribilof blue king crab, and St. Matthew blue king crab fisheries exceed 50 percent of the fishery. The allocations, however, vary by more than 10 percent in the Pribilof blue king crab fishery and by more than 5 percent in the Pribilof red king crab fishery depending on whether the allocation is made under the years designated for allocating regional shares or the years designated for determining processor allocations. The significance of this difference is that use of different years for determining regional allocations and processor allocations could result in some processors being allocated shares for use in a region in which they have no processing history or facilities. In the Bering Sea *C. opilio* fishery the allocation to the north would be approximately 40 percent of the fishery. In the Bering Sea *C. bairdi* fishery the north allocation would be less than 5 percent under the only applicable regionalization option. Allocation of shares under the processor allocation option would allocate more than 20 percent to the north, because this allocation would be based on activity in the *C. opilio* fishery. In the Bristol Bay red king crab fishery, the allocation to the north would be less than 10 percent under either the regionalization options or the processor allocation option. In the Aleutian Islands golden king crab fisheries, the north would receive no allocation.

The second regionalization alternative would create a link between processing activity and communities in which processing historically occurred. Under this option, processing would be permitted to relocate from a community only with permission of the community. In this draft, analysis of this option is strictly

qualitative. The allocation of shares to communities has the potential to impose hardships on both harvesters and processors. Determining the appropriateness of this option requires balancing these potential hardships against the potential benefit to communities of establishing a link between the processing activity and communities. Small allocations could burden processors by requiring that they either run processing facilities with small processing allocations or forgo processing a portion of their allocation. In addition, coordinating deliveries of crab to communities to exactly match the community allocation could be very challenging. Inability to reach an exact match would result in a portion of the GHL (or TAC) going unprocessed (and unharvested).

Binding Arbitration (Section 3.7) - This section examines two alternative binding arbitration agreements proposed by industry to govern ex-vessel price determinations between harvesters and processors. The two agreements differ only in that one would provide for an administrator to oversee the binding arbitration process. The administrator would appoint the arbitrator in cases where the two sides cannot agree on an arbitrator. Therefore the administrator would have substantial power in the process. The literature on binding arbitration suggests that implementing a binding arbitration process increases the conflicts between the two sides, and suggests that better outcomes are reached when two sides reach a negotiated agreement.

Options for Skippers and Crew (Section 3.8) - This section examines five options that are intended to protect skipper and crew interests. The first option would make an initial allocation of quota shares to skippers and/or crew. The allocation would be intended to provide those actively working in the fishery with an interest in the fishery. Several options for determining the allocation have been proposed. Eligibility would be based on either landings, verifiable by ADF&G fish tickets (or affidavits in the case of crew), or a point system, under which points are awarded based on participation verified by fish tickets or affidavit. Allocations could be made equally to all eligible participants or could be based on landings or points or some combination of these measures. Quantitative analysis of the option is limited by available data.

The second option would provide skippers and crew with a first-right-of-refusal on a portion of each share allocation, when those shares are first transferred. The third option would designate a portion of each initial allocation as "owner on board" shares, which require the quota share owner to be on board the vessel fishing the quota. Both the first-right-of-refusal and the owner on board requirements are intended to provide a method of entry to skippers and crew that wish to have an interest in the fishery. The third option would protect skippers and crew by guaranteeing their historical crew share and prohibiting vessel and quota share holders from reducing crew shares to cover the cost of participation in a share based fishery. This option is based on a system in the Canadian groundfish fishery. Preliminary research on this option suggest that enforcement of the provision could be problematic. The last option would create a low interest loan program to fund the purchase of quota shares by skippers and crew. This option would establish a program similar to that in the halibut and sablefish fishery.

CDQ Allocations (Section 3.9) - This section examines options for changing the allocations to CDQ groups in the different fisheries proposed for inclusion in the rationalization program. The analysis examines the allocations to both the CDQ groups and non-CDQ participants. Based on the GHL in the most recent fisheries, assuming the option for the highest CDQ allocation is adopted, the allocations to CDQ groups could range from a high of 3.3 million pounds in the Bering Sea *C. opilio* fishery to approximately 150 thousand pounds in the Pribilof red and blue king crab fisheries combined. These allocations would result in a decrease of approximately 13 thousand pounds and 1.3 thousand pounds per vessel from eligible non-CDQ participants in these fisheries.

Other Management and Allocation Issues (Section 3.10) - This section examines various management implications of the rationalization program, including the effects of rationalization on other fisheries, the possible need to continue AFA sideboards to limit activities of AFA participants in the BSAI crab fisheries, options that would specify the duration of the rationalization program and schedule periodic review of the program, and the need for a cost recovery program to cover the cost of management of the rationalized fisheries.

Crab rationalization may increase the opportunities for BSAI crab vessels to participate in other fisheries. LLP data indicates that 253 of the crab vessels hold at least one groundfish endorsement (this includes the 42 AFA catcher vessels). These vessels would be allowed to participate in groundfish fisheries using that license. However the options for many of these vessels are limited in groundfish. Groundfish endorsements are area specific and licenses are expected to have gear endorsements added in the next year. Pacific cod endorsements are expected to be added to BSAI groundfish licenses as a result of Amendment 67 (47 pot catcher vessels are expected to qualify for a cod endorsement). Pacific cod is the most likely candidate for expansion by the crab fleet. However, the restrictions currently in place for the cod fishery limit the expansion that can occur in that fishery. The quota is already split among fixed, trawl, and jig gear vessels and Amendment 67 limits new entry. However, Amendment 64, which further allocates the quota among the fixed gear components, sunsets at the end of 2003. There may be more concern in the GOA cod fisheries where fewer restrictions are placed on entry. If the GOA cod fishery is a concern it could be protected as part of this program, the GOA rationalization program, or by a trailing amendment to this package.

Increases in participation of BSAI crab vessels in State managed fisheries, including the GOA crab and the State of Alaska GOA cod fishery, could be limited by State regulations. The State waters cod fisheries are often managed with pot limits and vessel size restrictions. Those limits either make the fisheries unavailable or less attractive to large crab vessels. The GOA crab fisheries have had relatively low GHLs, when open in recent years. The pot limits applied to those fisheries may also make them less attractive to large BSAI crab vessels.

Including AFA vessels/processors in the quota allocation process may eliminate the need for harvesting processing sideboards in the BSAI crab fisheries. The allocation alternatives would result in AFA vessel harvests and processing allocations similar to the caps. Limits on the amount of quota AFA vessels and processors can purchase after the initial allocation could prevent them from using BSAI pollock monies to increase their share holdings. These limits could also be accomplished through the ownership caps being considered.

A cost recovery program is mandated for all new IFQ programs. The maximum fee that can be levied against the fleet is 3 percent of the ex-vessel value for harvest IFQ programs. However, the possible processor allocations raise the question of whether cost recovery should apply to processors under a two-pie IFQ program. Since they are benefitting from an allocation that would have management costs associated with it, should they be included in a cost recovery program to pay for its management?

Economic Effects of Rationalization (Section 3.11) - This section compares the different rationalization alternatives, giving particular attention to the differences in competition and bargaining power of harvesters and processors under the different program alternatives.

Effects of Rationalization on Products and Consumers (Section 3.12) - This section examines potential changes in products and other effects on consumers of rationalization of the fisheries. The analysis draws on prior experiences in North Pacific fisheries as well as conversations with participants in the industry. The expected slower pace of the fishery and less compacted delivery times should allow processors to improve sorting and grading of crab and improve employee training. Improved product grading could benefit both participants in the fisheries and consumers. Also expanding season lengths should decrease storage costs and allow consumers to purchase a fresher product as harvests can be better timed to market demand. Freezing techniques could also be modified to make more use of plate and blast freezers which would result in a higher quality product.

The Effects of the Crab Vessel Buyback Program (Section 3.13) - This section of the analysis examines the effects of the vessel buyback program on the rationalization program. We have assumed that the buyback program will purchase vessels, LLP licenses, and catch history. The analysis is qualitative because the participation in this voluntary program cannot be quantitatively predicted.

The buyback program will tend to increase the allocation of the harvesters that remain in the fishery by the percentage of qualifying catch that was removed from the quota share pool. Because the buyback program is specific to harvesters, it will cause a redistribution of processor "allocations" under the Plurality Assignment Cooperative. Processors that have more of their fleet bought out (in terms of cooperative allocation) relative to other processors would be worse off as a result of the buyback. Also, because catcher/processors are not part of the buyback, they will receive a larger harvest allocation under all of the rationalization alternatives. Depending on whether processing allocations to catcher/processors are base on their harvest allocations or their processing history, buyback could either allow them to process their entire harvest and increase their processing allocations or prevent catcher/processors from processing their entire allocation and have no effect on their processing allocations.

This section concludes with a brief discussion of the issue of stranded capital in the processing sector and the potential for a buyback of capital from the processing sector. The lack on limits to entry pose a problem for any program intended to remove capital from that sector. In addition, quantifying stranded capital in the sector is difficult because some of the facilities that support crab processing can also be used in other fisheries.

Foreign Ownership (Section 3.14) - This section examines the potential allocation of harvest and processing allocations to foreign owned interests in the BSAI crab rationalization program. Since vessel ownership data are not available, foreign ownership of that sector cannot be determined. The AFA, however, requires a minimum of 25 percent U.S. ownership of vessels operating in U.S. fisheries, providing an upper limit on foreign vessel ownership. Processor foreign ownership is available from prior analyses. If processor shares are allocated, foreign owned companies are estimated to receive between 35 and 50 percent of the allocations in each fishery.[2]

Custom Processing (Section 3.15) - This section analyzes custom processing in crab fisheries in recent years. From 1995 to 2000, between 8 and 11 percent of all crab processed in the regions that process crab from the BSAI fisheries was custom processed. Approximately 6.7 percent of *C. opilio* and approximately 8.6 percent of all red king crab processed during those years was custom processed.

Data Collection Program (Section 3.16) - This section outlines a data collection program for the BSAI crab fisheries that is intended to provide the Council with information necessary to evaluate the success of the proposed rationalization program. The proposed program would collect the following data, which could be used to evaluate the success of the program in addressing the problems identified in the Council's problem statement

- Firm ownership (including ownership of quota, vessels, and processors)
- Trip operating characteristics (including data on pots and pot lifts, days fished, discards, deadloss, gear losses, crew sizes, trip length)
- Harvesting and processing employment data (including crew sizes, shares, and wages)
- Production and operating costs and revenues
- Prices and quantities of landed and processed products
- Prices and quantities of share exchanges

A complete evaluation of the program will require data for periods prior to the implementation of the program, as well as data from periods after the program is implemented. The analysis also includes discussions of data collection mechanisms, data verification, and some issues of confidentiality that must be resolved for an effective data collection program.

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[2] These allocation estimated do not include allocations in the Aleutian Island golden king crab fisheries, for which data cannot be released because of confidentiality requirements.

Consistency with Other Applicable Laws (Section 4) - This section examines the consistency of the proposed rationalization program with applicable laws, including the National Standards and Fishery Impact Statement requirements of the Magnuson-Stevens Act and Executive Order 12866.

Regulatory Flexibility Act (Section 5) - This section analyzes the impacts of the proposed rationalization program on small entities, as defined by the Regulatory Flexibility Act (the RFA). The proposed action could affect between 300 and 400 small entities in the harvest sector and between 50 and 60 small entities in the processing sector. Although the impacts of the program are difficult to predict, it is possible that allocation of shares could benefit small vessels that compete with larger vessels in the current fishery. Small allocations (based on limited success in crab fisheries historically), however, could limit the benefits. The effects of the proposed rationalization on small entities that process crab is also difficult to predict and will depend on the specific rationalization program adopted and the position of the processor in the current fishery. Class B harvest shares (that do not require a corresponding processing share) could provide an opportunity for entry and growth of small entities, if they are able to compete with larger processors. Several small governmental jurisdictions could also be affected by the proposed rationalization program. The impacts on communities will depend largely on the type of program adopted. If free movement of processing activity is allowed communities that are able to attract additional processing activity will benefit from the program at the expense of communities that are unable to retain processing activity. A regionalization program that restricts movement of processing activity is likely to benefit those communities that would lose processing activity in a program without community protections. These gains would come at the expense of communities that would attract processing in a program that permits free movement of processing activity.

Summary of Changes in the March 2002 Crab Rationalization Alternatives, Initial Review Draft.

- The revised problem statement is included in this draft on page 1.
- The analysis of community and social impacts in Section 2.6 has been revised to incorporate quantitative analyses of the community and regional distribution of harvest and processing effort under the rationalization alternatives.
- Several additional subsections are included in Section 3.2. These include analyses of the FMP issues to consider under rationalization (3.2.11), environmental impacts of the alternatives (3.2.12), Endangered Species and Marine Mammal Act implications (3.2.13), and stock rebuilding implications (3.2.14).
- The quantitative analysis of processor shares has been separated into two subsections. The first subsection (3.4.3.1) considers the scenario under which catcher/processors are allocated processing shares under the same rules that govern their distribution to shore based and floating processors. The second subsection (3.4.3.2) considers the scenario under which catcher/processors are allocated catcher processor shares, which include both a harvest privilege and a processing privilege.
- An analysis of the Alternative Regionalization/Community Protection option by NOAA General Counsel has been added to Section 3.6.
- An analysis of the options for binding arbitration by NOAA General Counsel has been added to Section 3.7.
- The analysis of the new owner on board options are included in section 3.8.2.
- The analysis of sideboard options is included in subsection 3.10.1, which analyzes the effects of rationalization on other fisheries.

- An analysis of the economic effects of rationalization appears in Section 3.11. This section includes analysis of the net benefits of rationalization, distributional effects of rationalization, opportunities for entry in a rationalized fishery, and the effects of rationalization on different vessel classes.

- An analysis of stranded capital in the processing sector and the potential for a processor buyback program is included in Section 3.13.

- An analysis of foreign ownership in both the harvest and processing sectors is contained in Section 3.14.

- An analysis of custom processing is contained in Section 3.15.

- An analysis of the proposed data collection program is contained in Section 3.16.

- Section 4 provides an analysis of the consistency of rationalization with National Standards of the Magnuson-Stevens Act, a Fisheries Impact Statement, and the conclusion with respect to Executive Order 12866.

- Section 5 provides the Initial Regulatory Flexibility Analysis.

- Appendix 2-6, on community and social impacts, has been revised to include additional quantitative and qualitative analyses.

- Appendices 3-4A and 3-4B have been revised to reflect recent additions to the binding arbitration agreement proposed by industry.

- The comparison of rationalization alternatives, which comprised Appendix 3-7, has been removed from the analysis. This document will be available on request from the Council office. A summary of this paper and other analyses of the economic impacts of rationalization of North Pacific fisheries appears in Section 3.11.

In addition to the specific additions and changes discussed above, several minor modifications are made throughout the analysis. These include updating of quantitative analyses because of new data availability, corrections to quantitative and qualitative analyses, and editorial changes. Community distributions under the regionalization options (in Section 3.6) have changed substantially because of new data.

"Efficiency and Equity Choices in Fishery Rationalization Policy Design," a report prepared for the State of Alaska Department of Fish and Game by Scott C. Matulich and Michael Clark was mailed to you. Dr. Matulich has prepared an addendum to that report, which is included in your notebooks (Item C-5(b)).

NMFS staff will be presenting a discussion paper (Item C-5(c)) on the process and schedule for the subsequent crab FMP EIS., including a discussion of the structure of alternatives to be included in that EIS.

Draft Council Motion for Item C-5 BSAI Crab Rationalization
February 10, 2002

C-5 BSAI Crab Rationalization

BSAI Crab Rationalization Problem Statement

Vessel owners, processors and coastal communities have all made investments in the crab fisheries, and capacity in these fisheries far exceeds available resources. The BSAI crab stocks have also been highly variable and have suffered significant declines. Although three of these stocks are presently under rebuilding plans, the continuing race for fish frustrates conservation efforts. Additionally, the ability of crab harvesters and processors to diversify into other fisheries is severely limited and the economic viability of the crab industry is in jeopardy. Harvesting and processing capacity has expanded to accommodate highly abbreviated seasons, and presently, significant portions of that capacity operate in an economically inefficient manner or are idle between seasons. Many of the concerns identified by the NPFMC at the beginning of the comprehensive rationalization process in 1992 still exist for the BSAI crab fisheries. Problems facing the fishery include:

1. **Resource conservation, utilization and management problems;**
2. **Bycatch and its' associated mortalities, and potential landing deadloss;**
3. **Excess harvesting and processing capacity, as well as low economic returns;**
4. **Lack of economic stability for harvesters, processors and coastal communities; and**
5. **High levels of occupational loss of life and injury.**

The problem facing the Council, in the continuing process of comprehensive rationalization, is to develop a management program which slows the race for fish, reduces bycatch and its associated mortalities, provides for conservation to increase the efficacy of crab rebuilding strategies, addresses the social and economic concerns of communities, maintains healthy harvesting and processing sectors and promotes efficiency and safety in the harvesting sector. Any such system should seek to retain parity between the harvesting and processing sectors, including healthy, stable and competitive markets.

Alternative Rationalization Programs

The Council adopted elements and options for analysis of alternative rationalization programs for the BSAI crab fisheries. The alternative models under consideration include several IFQ-style and cooperative-style rationalization models that may be structured as either harvester-only or harvester-processor programs depending on the Council's choice of options. Additional features may be included to address coastal community and skipper/ crew issues. The following elements and options apply to any rationalization model under consideration as applicable:

1. Harvesting Sector Elements

1.1 Crab fisheries included in the program are the following fisheries subject to the Federal FMP for BSAI:

Bristol Bay red king
Brown king (AI Golden king)
Adak red king
Dutch Harbor red king
Pribilof Islands blue king
St. Matthew blue king
Pribilof Islands red king
Opilio (EBS snow crab)
E AI tanner
W AI tanner
Bairdi (EBS tanner)

Other FMP species not included here are discussed under item L at the end of the alternatives section.

Options:

A) **Exclude the E AI tanner, W AI tanner, Dutch Harbor red king crab, and W AI red king crab.**

B) **Federal waters shall be closed to the harvest of Eastern (Dutch) and Western AI Tanner crab and Eastern (Dutch)and Western AI red king crab until such time as the State of Alaska develops a fishery management plan and harvest strategies that includes provisions to conserve the stocks and prevent overcapitalization.**

1.2 Persons eligible to receive an initial allocation of QS must be:

Option 1. Any person that holds a valid, permanent, fully transferrable LLP license; or

Option 2 A person, defined as a U.S. citizen that owns a MarAd certified and/or USCG documented BSAI crab vessel that: (i) was used to satisfy the General Qualification Period (GQP) and Endorsement Qualification Period (EQP) landings requirements of the License Limitation Program (LLP), and (ii) either was used to satisfy the Recent Participation Period (RPP) landings requirement of Amendment 10 or meets the exemption requirements of Amendment 10.

Suboption: A person who has purchased an LLP, with GQP, EQP, and RRP qualifications to remain in a fishery is eligible to obtain a distribution of QS on the history of either the vessel on which the LLP is based or on which the LLP is used, NOT both.

1.3 Categories of QS/IFQs

1.3.1 Crab Fishery Categories - QS/IFQs will be assigned to one of the crab fisheries included in the program as identified in paragraph 1.1, except Dutch Harbor red king, E AI tanner, and W AI tanner. (Note also that the Adak red king crab fishery has been closed for several years.)

1.3.1.1 Brown king crab (AI golden king crab) option.

Option 1. Split into two categories: Dutch Harbor brown king crab and Western Aleutian Islands brown king crab

1.3.2 Harvesting sector categories - QS/IFQs will be assigned to one of the following harvesting sector categories:

(a) catcher vessel (CV), or

(b) catcher/processor (CP)

QS-IFQ for the Catcher/Processor sector is calculated from the crab that were both harvested and processed onboard the vessel. This shall confer the right to harvest and process crab aboard a catcher processor in accordance with section 1.7.2.

1.3.3 Processor delivery categories - QS/IFQs for the CV sector may be assigned to processor delivery categories if processor quota shares (PQs) are included in the program. Two processor delivery categories (options for the percentage split between class A/B shares for initially allocated QS appear under the Processing Sector Elements):

(a) Class A - allow deliveries only to processors with unused PQs

(b) Class B - allow deliveries to any processor

1.3.4 Regional Categories - QS/IFQs for the CV sector may be assigned to regional categories if Regionalization is included in the program. Two regions would be defined as follows (see Regionalization Elements for a more detailed description of the regions):

(a) North Region - All areas on the Bering Sea north of 56° 20' N. Latitude.

(b) South Region - All areas on the Bering Sea south of 56° 20' N. Latitude and on the Gulf of Alaska

1.4 Initial allocation of QS

1.4.1. Calculation of initial QS distribution will be based on legal landings excluding deadloss.

(a) Calculation of QS distribution. The calculation is to be done, on a vessel-by-vessel basis, as a percent of the total catch, year-by-year during the qualifying period. Then the sum of the yearly percentages, on a fishery-by-fishery basis, is to be divided by the number of qualifying years included in the qualifying period on a fishery-by-fishery basis to derive a vessel's QS.

(b) Basis for QS distribution.

Option 1. For eligibility criteria in paragraph 1.2, Option 1, the distribution of QS to the LLP license holder shall be based on the catch history of the vessel on which the LLP license is based and shall be on a fishery-by-fishery basis. The underlying principle of this program is one history per vessel. However, the initial allocation of quota share will allow stacking or combining of valid, permanent, fully transferable LLP licenses and of histories of vessels as permitted under the LLP.

Option 2. For eligibility criteria in paragraph 1.2, the distribution of QS to the LLP license holder shall be based on the catch history of the vessel (including replacement vessels) on which the LLP license and endorsements are based and shall be on a fishery by fishery basis. The catch history upon which the fishing quota shares are derived, must have been earned on vessels that are currently MarAd certified and/or USCG documented fishing vessels. The initial allocation of quota share will allow stacking or combining of LLPs and histories that satisfied (i) the GQP and EQP landings requirements of the LLP, and (ii) either the RPP landings requirement, or one or more of the specific exemption requirements of Amendment 10 to the LLP.

Option 3: In cases where the fishing privileges (i.e. moratorium qualification or LLP license) of an LLP qualifying vessel have been transferred, the distribution of QS to the LLP shall be based on the aggregate catch histories of (1) the vessel on which LLP license was based up to the date of transfer, and (2) the vessel owned or controlled by the LLP license holder and identified by the license holder as having been operated under the fishing privileges of the LLP qualifying vessel after the date of transfer. Only one catch history per LLP License.

Suboption: Persons who have an purchased LLP, with GQP, EQP, and RPP qualifications to remain in a fishery may obtain a distribution of QS on the history of either the vessel on which the LLP is based or on which the LLP is used, NOT both.

1.4.2 Qualifying Periods for Determination of the QS Distribution:

1.4.2.1 Opilio (EBS snow crab)
Option 1. 1994 - 1999 (6 seasons)
(a) Best 5 seasons
Option 2. 1992 - 1999 (8 seasons)
(a) Best 7 seasons
Option 3. 1995 - 1999 (5 seasons)
(a) All seasons
(b) Best 4 seasons
Option 4. 1996 - 2000 (5 seasons)
(a) Best 4 seasons

1.4.2.2 Bristol Bay red king crab

Option 1. 1993 - 1999 (5 seasons, closed in '94 and '95)
- (a) All seasons
- (b) Best 4 seasons

Option 2. 1992 - 1999 (6 seasons)
- (a) All seasons
- (b) Best 5 seasons

Option 3. 1996 - 2000 (5 seasons)
- (a) Best 4 seasons

1.4.2.3 Bairdi (EBS tanner crab)

Option 1. 1992 - 1996 (5 seasons)
- (a) All seasons
- (b) Best 4 seasons

Option 2. 91/92* - 1996 (6 seasons)
- (a) Best 5 seasons

Option 3. Based on a 50/50 combination of Bristol Bay red king crab and opilio harvests.

*The biological season extended over a calendar year

1.4.2.4 Pribilofs red king crab

Option 1. 1993 - 1998
- (a) Best 4 seasons

Option 2. 1994 - 1998
- (a) All seasons
- (b) Drop one season[1]

1.4.2.5 Pribilofs blue king crab

Option 1. 1993 - 1998
- (a) Best 4 seasons

Option 2. 1994 - 1998
- (a) All seasons
- (b) Drop one season

1.4.2.6 St. Matthew blue king crab

Option 1. 1993 - 1998
- (a) Best 4 seasons

Option 2. 1994 - 1998
- (a) All seasons
- (b) Drop one season

1.4.2.7 Brown king crab (based on biological season)

(Options apply to both Dutch Harbor and western Aleutian Island brown king crab)

Option 1. 92/93 - 98/99 (7 seasons)
- (a) All seasons
- (b) Drop one season

Option 2. 95/96 - 98/99 (4 seasons)
- (a) All seasons
- (b) Drop one season

Option 3. 96/97 - 98/99 (3 seasons)
- (a) All seasons
- (b) Drop one season

[1] All potential recipients would drop their worst season during the qualifying period.

Option 4. 96/97 - 2000/01 (5 seasons)
(a) Best 4 seasons

Suboption: Award each initial recipient QS based on:
(a) GHL split Dutch Harbor/western Aleutian Island brown king crab
(b) historical participation in each region.

1.4.2.8 Adak Red King Crab
Option 1. 1992 - 1996
(a) All seasons
(b) Best 2 seasons
(c) Not appropriate for rationalization

1.5 Annual allocation of IFQs:

1.5.1 Basis for calculating IFQs:
Option 1. GHL
Option 2. Convert GHL to a TAC and use the TAC as the basis.

1.6 Transferability and Restrictions on Ownership of QS/IFQs:

1.6.1 Persons eligible to receive QS/IFQs by transfer:
Option 1.
(a) All persons or entities eligible to document a U.S. fishing vessel are eligible to own or purchase harvester QS and IFQs
(b) Persons or entities with 75% U.S. ownership
Suboption: Initial recipients of harvesting quota share are grandfathered

Option 2. US citizens who have had at least (3 options):
a. 30 days of sea time*
b. 150 days of sea time*
c. 365 days of sea time*
Suboption: Initial recipients of harvesting quota share are grandfathered

Option 4. Entities that have a U.S. citizen with 20% or more ownership and at least
a. 30 days of sea time*
b. 150 days of sea time*
c. 365 days of sea time*
Suboption: Initial recipients of harvesting quota share are grandfathered

*Definition of sea time (3 options):
Option 1. Sea time in any of the US commercial fisheries in a harvesting capacity
Option 2. Sea time in a harvesting capacity in any commercial fishery of the State of Alaska or the Alaska EEZ
Option 3. Sea time in any BSAI crab fishery

1.6.2 Leasing of QS (Leasing is equivalent to the sale of IFQs without the accompanying QS.)
Leasing is defined as the use of IFQ on vessel which QS owner holds less than 5-50% ownership of vessel or on a vessel on which the owner of the underlying QS is present:
Option 1. Leasing QS is allowed with no restrictions
Option 2. Leasing QS is not allowed
Option 3. A brown king crab QS holder may annually swap with any other brown king crab QS holder, on a pound for pound basis, IFQ in one district for IFQ in the other district.

1.6.3 Separate and distinct QS Ownership Caps - apply to all harvesting QS categories pertaining to a given crab fishery with the following provisions:

(a) initial issuees that exceed the ownership cap would be grandfathered;

(b) apply individually and collectively to all QS holders in each crab fishery;

(c) percentage-cap options for the Bristol Bay red king crab, Opilio, Bairdi, Pribilofs red king crab, Pribilofs blue king crab and St. Matthew blue king crab fisheries (a different percentage cap may be chosen for each fishery):

Option 1. 1 % of the total QS pool for the fishery
Option 2. 5% of the total QS pool for the fishery
Option 3. 8% of the total QS pool for the fishery

(d) percentage-cap ranging from 10%-40% for the Dutch Harbor and western Aleutian Island brown king crab (a different percentage cap may be chosen for each fishery or may be applied to the combined fisheries if not categorized separately).

Suboption: No initial issuance shall exceed the cap specified. Any amount of QS that would be issued to a person in excess of the cap shall be distributed to other qualified persons receiving an allocation in the fishery:

a) equally or
b) proportionally.

(e) percentage-cap ranging from 10%-30% for Adak red king crab (if QS for this fishery are issued).

(f) in the opilio fishery, the cap can be reduced to 0.5% of the total QS pool in the event the GHL increases to over 400 million pounds (with those over this cap prior to the reduction grandfathered).

1.6.4 Controls on vertical integration (ownership of harvester QS by processors):

Option 1: No controls
Option 2: A cap of 1%, 5% or 8%, with grandfathering of initial allocations
Option 3: An entity that owns PQs may not own harvester QS in addition to those harvester QS that were issued to the PQ holder in the initial allocation.

Vertical integration ownership caps on processors should be analyzed using both the individual and collective rule and the threshold ownership rule using 10%, 25%, and 50% minimum ownership standards for inclusion in calculating the cap. PQS ownership caps are at the company level.

1.7 Use of IFQs

1.7.1 Use by harvesting sectors - IFQs must be used in accordance with the privileges defined for the associated QS category. The following provisions also apply:

(a) "A" class CV-IFQs may be processed by either a shoreside processor or a catcher/processor so long as sufficient processor shares are held by the processor.

(b) "B" class CV-IFQ's may be processed by either a shoreside processor or a catcher/processor.

(c) "A" or "B" class CV-QS initially issued to a catcher/processor shall not be regionally or community designated.

(d) "A" or "B" class CV-QS purchased or obtained by catcher/processors shall retain their regional or community designation.

(e) No allowance of the use of purchased class B share IFQ crab on catcher processor vessels.

1.7.2 Catcher/Processor shares:

1.7.2.1 Catcher/Processors shall be granted "A" and "B" class CV-QS in the same manner as catcher vessels.

1.7.2.1.1 Catcher/Processors shall be granted CP-QS in the same manner as catcher vessels.

1.7.2.2 Catcher/Processors shall be granted PQ's based on their processing history.

1.7.2.3 Allowances for Catcher/Processors:

Option 1. Catcher/Processors are prohibited from purchasing additional PQs from shore based processors but are free to acquire PQs from other Catcher/Processors.

Option 2. Catcher/Processors shall be allowed to purchase additional PQs from shore based processors as long as the shares are processed within 3 miles of shore in the designated region.

Option 3. Catcher/Processors may purchase additional CV-QS but cannot process unless sufficient unused IPQs are held.

Option 4. Catcher/Processors may sell processed or unprocessed crab. Depending on the type of model (one-pie, two-pie, etc.), unprocessed crab may be delivered to:

(a) processors that hold unused IPQs, or
(b) any processor

Option 5. Only catcher processors that both caught and processed crab onboard their qualifying vessels in any BSAI crab fishery during 1998 or 1999 will be eligible for any CP QS in any IFQ or Coop program.

Option 6. CP-QS initially issued to a catcher/processor shall not be regionally or community designated.

1.7.2.4 Transfers to shore-based processors:

(a) Catcher/Processors shall be allowed to sell PQ's to shore based processors.
(b) When CP-PQ shares without a regional designation are sold to a shore based processor, the shares become designated by region.
(c) Catcher/Processors shall be allowed to sell CP/QS to shore based processors.
(d) When CP/QS shares, without a regional designation, are sold to a shore based processor, the shares become CV and PQ shares designated by region.

1.7.3 Catch accounting under IFQs - All landings including deadloss will be counted against IFQs. Options for treatment of incidental catch are as follows:

Option 1. No discards of legal crab will be allowed and sufficient IFQs for legal crab must be available.

Option 2. No discards of "marketable" crab will be allowed for opilio crab and sufficient IFQs for "marketable" crab must be available. (Legal size for opilio is 3.1 inches but the industry standard is 4 inches.)

Option 3. No discards of opilio crab with a carapace of 4 inches or greater in width.

Option 4. Discards of incidentally caught crab will be allowed. (This option would allow, for example, incidental catch of bairdi crab in a red king crab fishery to be discarded without counting against bairdi IFQs.)

1.7.4 Use caps on IFQs harvested on any given vessel:

Option 1.

a) fleet average percent of the catch
b) highest single vessel percentage of the catch

Time periods considered for determining the catch shall be:

a) the IFQ qualifying years;
b) the IFQ qualifying years plus the years from the end of the qualifying period through the year of the final Council action.

Option 2. No use caps

1.8 Other Optional Provisions

1.8.1 Options for skippers and crews members:

Option 1.

I. Percentage to Captains and/or crew:

A range of percentages for initial allocation from 0% to 20% should be analyzed.
(i.e. 0%, 10%, 20%)
A crewman is defined as a US citizen who held a a commercial fishing landing permit or crew license during the qualifying period.

II. Species specific:

As with vessels.

III. Eligibility:

(a) Determined on a fishery by fishery basis by 1) having at least one landing in the qualifying years used by the vessels and 2) having recent participation in the fishery as defined by at least one landing per year in the fishery in the last two years prior to adoption of a rationalization program by the Council.

(b) As a second option, eligibility could be determined by a point system modeled after that used by the State of Alaska in SE Alaska for limited entry in the Dungeness, King, and Tanner crab fisheries there.

(c) Eligibility will include:

1. Skippers only
2. All crew

IV. Qualification period:

As with vessels.

V. Distribution per Captain:

i) Shares based on landings (personal catch history based on ADF&G fish tickets).
ii) Shares distributed equally among qualified participants.
iii) distribution based on a point system
iv) A mix of one or more of the above, with a range of 0-50% distributed equally and the balance based on landings and/or points

VI. Distribution for All Crew:

i) Shares distributed equally among qualified participants.
ii) distribution based on a point system
iii) A mix of one or more of the above, with a range of 0-50% distributed equally and the balance based onpoints

VII. Transferability criteria:

(1) Sale of QS
a) QS is fully transferable
b) QS is only transferable to active participants

(2) IFQ leasing
a) IFQ is fully leasable
b) IFQ is only leasable to active participants
c) IFQ is leasable to smaller, distant fisheries (i.e. St. Mathew, Pribilof and Adak King Crab)
d) No leasing of IFQ

Use it or lose it would apply to all skipper/crew QS, with a one year hardship provision. If the skipper/crew QS holder does

not maintain active status in the fishery they would be required to transfer their QS to another active participant in the fishery.

An active participant is defined by participation in at least one delivery in the subject crab fishery in the last year as evidenced by ADF&G fish ticket or affidavit from the vessel owner.

VIII. Skipper/Crew on Board requirements

a) No onboard requirement for skipper/crew with QS

b) Initial issuees of QS would not be required to be onboard the vessel, subsequent tranferees would be required to be onboard the vessel when harvesting QS.

c) Requirement for skipper/crew to be onboard vessel when harvesting QS.

Option 2: First Right of Refusal on Quota Share Transfers

(1) A range of 0-20% of initially issued QS would be designated as crew shares, these shares would remain as a separate class of QS. Transfer of initially issued QS must include transfer of 0-20% crew shares for which there will be a first right of refusal for eligible crew to buy. The owner of the QS being offered for sale would have to give notice to NMFS RAM division of the impending sale. RAM in turn could then notify the fleet of the available QS. After this initial transfer crew QS will be available for transfer to any active participant in the fishery.

(2) If a qualified buyer cannot be found then 50% of the 0-20% crew QS offered for sale would have to be gifted to a pool available to qualified buyers and the remaining 50% of the 0-20% could then be offered for sale on the open market to any buyer.

(3) The crew pool of QS would be overseen by RAM. The proceeds from the sale of this QS by auction to the highest qualified bidder would go into a dedicated low interest loan program for crew.

(4) Time frame for the first right of refusal is 1-3 months.

(5) Eligibility of a U.S. citizen to purchase crew shares would be defined by participation in at least one delivery in the subject crab fishery in the last year as evidenced by ADF&G fish ticket or affidavit from the vessel owner.

Option 3. Protection of traditional and historical crew share percentages with no sunset based on the Canadian Groundfish Development Authority Code of Conduct.

Option 4. A low-interest rate loan program for skipper and crew purchases of QS would be established or made part of the existing loan program for IFQ purchases.

Option 5. Owner On Board Option

a. A portion (range of 5-50%) of the quota shares initially issued to fishers / harvesters would be designated as "owner on board."

b. All initial issuees (individual and corporate) would be grandfathered as not being required to be aboard the vessel to fish shares initially issued as "owner on board" shares

c. Shares transferred to initial issuees in the first (range of 3-7 years) of the program would be considered the same as shares initially issued

d. "owner on board" shares transferred by initial issuees, after the grace period, would require the recipient to be aboard the vessel to harvest the IFQ/ITQ

e. **In cases of hardship (injury, medical incapacity, loss of vessel, etc.) a holder of "owner on board" quota shares may, upon documentation and approval, transfer / lease his or her shares for the term of the hardship / disability or a maximum of (Range 1-3 years)**

f. **Shares issued to CDQ groups are exempt from owner on board requirements**

1.8.2 Overage Provisions:

(a) Allowances for overages during last trip:

Option 1. 1%
Option 2. 3%
Option 3. 5%

(b) Any overage would be deducted from the QS holder's IFQs (during the next season) at:

Option 1. same amount as overage
Option 2. twice the amount as overage

1.8.3 AFA vessels option: Eliminate AFA harvester sideboard caps on crab species upon implementation.

1.8.4 Discussion in the analysis of season opening dates under an IFQ program and the potential for concurrent seasons and multi-species fishing to reduce bycatch.

1.8.5 **Sideboards.**
Vessels that qualify for QS in the rationalized crab fisheries would be limited to their catch history in GOA fisheries. The years used for qualification (or the distribution of QS in the rationalized crab fisheries) would be the same years used to establish catch histories in the GOA fisheries. The Council also requests that the Board of Fish address sideboard issues in State Waters fisheries.

2. Processing Sector Elements

2.1 Eligible Processors - processors **(including catcher-processors)** eligible to receive an initial allocation of processing quota shares (PQs) are defined as follows:

(a) U.S. Corporation or partnership (not individual facilities) that
(b) processed crab for any crab fishery included in the IFQ program during 1998 or 1999.

2.2 Categories of Processing Quota Shares

2.2.1 Crab fishery categories - processing quota shares may be issued for the following crab fisheries:

Bristol Bay red king
Brown king (AI Golden king)
Adak red king
Dutch Harbor red king
Pribilof Islands blue king
St. Matthew blue king
Pribilof Islands red king
Opilio (EBS snow crab)
E AI tanner
W AI tanner
Bairdi (EBS tanner)

2.2.2 Regional categories - processing quota shares will be categorized into two regions if regionalization is adopted (see Regionalization Elements for description of regions):
(a) Northern Region - All areas on the Bering Sea north of 56° 20' N. Latitude
(b) Southern Region - All areas on the Bering Sea south of 56° 20' N. Latitude and all areas on the Gulf of Alaska

2.3 Initial allocation of processing quota shares

Option 1. Processing quota shares shall be initially issued to Eligible Processors based on three-year average processing history[2] for each fishery, determined by the buyer of record listed on ADF&G fish tickets, as follows:

(a) 1997 - 1999 for Bristol Bay red king crab
(b) 1996 - 1998 for Pribilof red king crab
(c) 1996 - 1998 for Pribilof blue crab
(d) 1996 - 1998 for St. Mathew blue crab
(e) 1997 - 1999 for opilio crab
(f) Bairdi crab based on 50/50 combination of processing history for BBRKC and opilio
(g) 1996/97, 1997/98 and 1998/99 seasons for brown king crab
(h) The council shall/may determine if the 4 species not included are appropriate for PQs, Dutch Harbor red king, E AI tanner, W AI tanner, and Adak red king

Option 2. Processing quota shares shall be initially issued to Eligible Processors based on the processing history for Opilio, BBRKC or brown king crab, determined by the buyer of record listed on ADF&G fish tickets, using the best 4 seasons during the 1996 - 2000 seasons.

Option 3. If an eligible processor is no longer active in the crab fisheries, the history of the processor will be allocated to open ~~access~~ delivery (Class B) shares but will retain its regional designation.

2.4 Percentage of season's GHL or TAC for which IPQs are distributed:

2.4.1 IPQs will be issued for a portion of the season's GHL or TAC for each species to provide open ~~access~~ delivery processing as a means to enhance price competition:

Option 1	100% GHL (or TAC) would be issued as IPQs
Option 2	90% GHL (or TAC) would be issues as IPQs - the remaining 10% would be considered open ~~access~~ delivery.
Option 3	80% of GHL (or TAC) would be issued as IPQs - the remaining 20% would be considered open ~~access~~ delivery.
Option 4	70% of GHL (or TAC) would be issued as IPQs - the remaining 30% would be considered open ~~access~~ delivery.
Option 5	0% - no processing shares

2.5 Implementation of the open ~~access~~ delivery processing portion of the fishery:

Catcher vessel QS/IFQs are categorized into Class A and Class B shares. Purchases of crab caught with Class A shares would count against IPQs while purchases of crab caught with Class B shares would not. Crab caught with Class B shares may be purchased by any processor on an open-~~access~~ delivery basis.

2.6 Transferability of processing shares - provisions for transferability include the following:

(a) Processing quota shares and IPQs would be freely transferable, including leasing
(b) IPQs may be used by any facility of the Eligible Processor (without transferring or leasing)
(c) Processing quota shares and IPQs categorized for one region cannot be transferred to a processor for use in a different region.

2.7 Ownership and use caps - different percentage caps may be chosen for each fishery:

2.7.1 Ownership caps

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[2] The three-year average shall be the three-year aggregate pounds purchased by each Eligible Processor in a fishery divided by the three-year aggregate pounds purchased by all Eligible Processors in that fishery.

Option 1. based on maximum share for processors by fishery plus a percentage of 5%, 10% or 15%.
Option 2. Ownership cap equal to largest share issued to processor at initial issuance.
Option 3. Range of caps from average to maximum with grandfather clause.

PQS ownership caps should be analyzed using both the individual and collective rule and the threshold ownership rule using 10%, 25%, and 50% minimum ownership standards for inclusion in calculating the cap. PQS ownership caps are at the company level.

2.7.2 Use caps

Option 1 Annual use caps ranging from 30% - 60% of the GHL (or TAC) by fishery.
Option 2. Annual use caps of quota share equal to the largest PQ holder's share in each specific fishery.

2.8 Other Optional Provisions:

2.8.1 The crab processing caps enacted by Section 211(c)(2(A) of the AFA would be terminated.

2.8.2 Penalties - Eligible Processors must fully utilize their processing quota shares in the season while a fishery is open or lose the amount that is not utilized for one season in the next season.

(a) Distribution of unused quota:

Option 1. Distributed to other processors proportionally
Option 2. Distributed to other processors equally
Option 3. Allocate to open ~~access~~ delivery
Suboption 1. If QS is reclassified from Class A to Class B:

a) reclassification of Class A QS will be distributed proportionally among all Class A QS holders
b) reclassification of Class A QS will be distributed equally among all Class A QS holders
c) reclassification of the unused Class A QS to B class

All three options for reclassification of these temporary B QS should require a regionalization designation to maintain the appropriate regional allocations. Additionally, include discussion of reasons a processor may not use its quota, including physical inability (e.g. plant breakdown); harvesters being unable to deliver when the processor is able to process; bona fide price disagreement; concern over exceeding the processor quota allotment (when there is only a small amount of processor quota remaining); and bonafide dispute over quality of the crab.

(b) Hardship provisions

2.8.3 Option for use of a private sector managed (non-governmental), binding arbitration process, for failed price negotiations, between fishermen and processors. To the extent that this may be a key design feature in a two pie IFQ program, the analysis should consider the mechanics and applicability to a two pie IFQ program.

Considerations for analysis of binding arbitration:

Individuals and groups of fishermen holding QS will negotiate independently and separately with individual processing companies holding PQs at any time, before season openings, the earlier the better, to seek best market prices;

Only required if negotiations fail to achieve acceptable price to both parties;

Private-sector financed and managed and conducted on a company-by-company basis;

Individuals, groups and companies that request binding arbitration jointly bear the cost;

Requires statutory definition, along with harvesting and processing quota shares;

Harvesting and processing sectors must agree to participate;

Agreements on price settlements are binding and will likely require an enforcement mechanism (i.e. contracts or statement of agreement between parties);

Biological seasons, overlap of the biological seasons, crab quality, weather and other considerations need to be contemplated in development of the process framework;

Need to establish criteria for pool of arbitrators

Elements of the binding arbitration process:

Requires independent market analyses for specified BSAI king, tanner (Bairdi) and snow (Opilio) crab species by a designated market analyst to be chosen by industry (fishermen and processors);

Arbitrator, chosen by industry (fishermen and processors) before start of negotiations, sits in on presentation of market analysis but does not sit in on negotiations;

Need to establish and adhere to deadlines for:

(a) Presentation of market analysis to industry (i.e. 8 to 10 weeks prior to season opening)

(b) Agreement on date to go to arbitration
    (1) Pre season
    (2) In season

(c) Agreement on deadline for price settlement
    (1) Date certain
    (2) or based on % of GHL caught

Arbitration will require the parties to submit best price and arbitrator picks one or the other price, but does not split the difference or other options

Options to establish a price:

Option 1. Prices established are a minimum price, based on market analysis, with processors agreeing to pay at least the minimum price (allows variability on prices between companies).

Option 2. Formula approach similar to some Bering Sea pollock operations, where the fleets share in the percentage of the sale price of the products. In this case, the arbitrator would decide the formula percentage.

3. Regionalization Elements

3.1 Two regions are proposed:

(a) Northern Region - All areas on the Bering Sea north of 56° 20' N. Latitude. (This region includes the Pribilof islands and all other Bering Sea Islands lying to the north. The region also includes all communities on Bristol Bay including Port Heiden but excludes Port Moller and all communities lying westward of Port Moller.)

(b) Southern Region - All areas on the Bering Sea south of 56° 20' N. Latitude and all areas on the Gulf of Alaska (This region includes all parts of the Alaska Peninsula westward of and including Port Moller. All of the Aleutian Islands are included in the South Region as are all ports and communities on the Gulf of Alaska.)

Suboption: Regional categories for deliveries of Aleutian Islands brown king and Adak red king crab split into a "Western" (west of 174 degrees West longitude) and "Eastern" (east of 174 degrees West) area with an option that up to 50% of W AI brown king crab must be processed in the W AI region.

3.2 Regional categorization of processing and/or harvesting quota shares

3.2.1 Categorization will be based on all historical landings. Periods used to determine regional percentages are as follows (two options):

Option 1. 1995 - 1999
Option 2. 1997 - 1999

3.2.2 Options for the harvesting sector:
Option 1. all CV quota shares are categorized by region
Option 2. only Class A CV quota shares are categorized by region

3.2.3 Options for the processor sector:
Option 1. Processing quota shares and IPQs are categorized by region
Option 2. Regional restrictions apply to deliveries made on an open ~~access~~ delivery basis

3.2.4 Once assigned to a region, processing and/or harvesting quota shares cannot be reassigned to a different region.

3.2.5 Options for addressing potential mismatch of harvesting and processing shares within the region.

1. The base years for determining processing shares and the base period for determining the share assigned to each region shall be the same.

2. If the cumulative harvester quota associated with each region differs from the total regional share, by species, the harvester share, by species, shall be adjusted, up or down, in the following manner:

a. The adjustment shall apply only to harvesters with share in both regions.

b. The adjustment shall be made on a pro rata basis to each harvester, so that the total share among those harvesters, by region, equals the total share assigned to each region.

3. The adjustment shall only be on shares that carry a regional designation; Class B quota would be excluded from the adjustment.

3.3 Delivery and processing restrictions - the following provisions apply to the delivery and processing of crab with IFQs or IPQs that are categorized by region:
(a) Crab harvested with catcher vessel IFQs categorized for a region must be delivered for processing within the designated region
(b) Crab purchased with IPQs categorized for a region must be processed within the designated region.

3.4 Alternative Regionalization/Community Protection Option: ~~Processing history may leave the region of origin (in which history was established) with permission of the community in which the crab was processed in the base period. The processing QS may change regions with negotiated agreement between processors and the originating communities. These agreements will be filed with the Secretary of Commerce 30 days prior to the quota share leaving the community.~~

Processing history may leave an eligible community of origin in which the history was established with permission of the eligible community. The processing QS may change communities with negotiated agreement between the processor and the originating (eligible) community; these agreements will be filed with the Secretary of commerce thirty days prior to the quota share leaving the eligible community.

"Eligible communities" shall be defined as any community in which aggregate (community) landings exceeded 0-8% of the species for which processor QS is awarded during the qualifying period.

"Community landings" for closed fisheries will be determined using a formula that mirrors "processor option one" as defined in the current analysis.

4. Community Development Allocation (based on existing CDQ program):

Option 1. No change from existing program

Option 2. Expand existing program to all crab fisheries under this analysis.

Option 3. Increase for all species of crab to 10%

Option 4. Increase for all species of crab to 12.5%

Option 5. For the Aleutian Islands brown king crab fishery, the percentage of resource not utilized (difference between actual catch and GHL) during base period is allocated to the community of Adak.

5. Program Duration and Review

The following options apply to all program elements:

Option 1. Program review after 2 years and every 3 years thereafter to objectively measure the success of the program, including benefits and impacts to harvesters (including vessel owners, skippers and crew), processors and communities by addressing concerns, goals and objectives identified in the Crab Rationalization problem statement and the Magnuson Stevens Act standards. This review should include analysis of post-rationalization impacts to coastal communities, harvesters and processors in terms of economic impacts and options for mitigating those impacts.

Option 2. Program review every 3 years to objectively measure the success of the program, including benefits and impacts to harvesters (including vessel owners, skippers and crew), processors and communities by addressing concerns, goals and objectives identified in the Crab Rationalization problem statement and the Magnuson Stevens Act standards. This review should include analysis of post-rationalization impacts to coastal communities, harvesters and processors in terms of economic impacts and options for mitigating those impacts.

Option 3. No program review

Option 4. Sunset in 5 or 7 years

6. Cooperative model options:

6.1 Coop model with the following elements and options:

State Voluntary Cooperative: The purpose of the voluntary cooperative for BSAI crab fisheries is to allow harvesting, processing and community interests to share in the benefits of a rationalized fishery, enhanced by formal cooperation between buyers and sellers. A cooperative structure encourages entities with common and mutual interests to approach those interests through a common perspective.

1) Individual harvesting and processing histories are issued to both catcher and processors.
(Harvesters under Section 1.3.2 a) which meet program qualifications. Processors under Section 2.1, 2.3, and 2.4 (Options 1-4) which meet qualifications of the program).

2) Cooperatives may be formed through contractual agreements among fishermen who wish to join into a cooperative with one or more processors holding processor history for one or more species of crab. Fleet consolidation within this cooperative may occur either by internal history leasing and vessel retirement or by history trading within the original cooperative or to a different cooperative.

3. 3) There must be at least 2 or more unique vessels/owners to form a coop with a processor. Vessels are not restricted to deliver to a particular plant or processing company.

Suboption: There must be at least 4 or more unique vessels engaged in one or more crab fisheries to form a coop with a processor. Vessels are not restricted to deliver to a particular plant or processing company.

4) New processors may enter the fishery by acquiring processor history from an initial issuee. Cooperative formation with a new processor lacking processing history requires the new processor to offer both an adequate payment to the vessel and to the originating plant where the prior processing history resided.

5) Custom processing would continue to be allowed within this rationalization proposal.

6) Provide an opportunity for communities. ~~Processing history may leave the region of origin (in which history was established) with permission of the community in which the crab was processed in the base period. The processing QS may change regions with negotiated agreement between processors and the originating communities. These agreements will be filed with the Secretary of Commerce 30 days prior to the quota share leaving the community.~~

Processing history may leave an eligible community of origin in which the history was established with permission of the eligible community. The processing QS may change communities with negotiated agreement between the processor and the originating (eligible) community; these agreements will be filed with the Secretary of commerce thirty days prior to the quota share leaving the eligible community.

"Eligible communities" shall be defined as any community in which aggregate (community) landings exceeded 0-8% of the species for which processor QS is awarded during the qualifying period.

"Community landings" for closed fisheries will be determined using a formula that mirrors "processor option one" as defined in the current analysis.

7) Regional Categories:

Option 1.	No regional categories.
Option 2.	Harvester cooperatives' regional categories for deliveries of Bering Sea crab as in paragraph 1.3.4.
Option 3.	Harvester cooperatives' regional categories for deliveries of Aleutian Islands brown king and Adak red king crab split into a "Western" (west of 174 degrees West longitude) and "Eastern" (east of 174 degrees West) area.

8) Duration of coop agreements.

Option 1.	2 years
Option 2.	4 years
Option 3.	6 years

9) Community Development Allocation (under existing CDQ program)

Option 1.	No change from existing program
Option 2.	Expand existing program to all crab fisheries under this analysis.
Option 3.	Increase for all species of crab to 10%
Option 4.	Increase for all species of crab to 12.5%
Option 5.	For the Aleutian Islands brown king crab fishery, the percentage of resource not utilized (difference between actual catch and GHL) during base period is allocated to the community of Adak.

10) Observer requirements. For crab vessels greater than 60' in length, maintain observer coverage at:

Option 1.	Status quo.
Option 2.	10%
Option 3.	20%
Option 4.	30%

11) Length of program:

Option 1. Sunset in 5 years

Option 2. Program review to objectively measure the success of the program by addressing concerns identified in the Crab Rationalization problem statement and the Magnuson Stevens Act standards.

Suboption 1. Program review after 2 years

Suboption 2. Program review every 3 years

12) Option for skipper and crew members: Protection of traditional and historical crew share percentages with no sunset.

13) Catch Accounting - All landings including deadloss will be counted against a vessel's quota. Options for treatment of incidental catch are as follows:

Option 1. No discards of legal crab will be allowed, and sufficient quota for legal crab must be available.

Option 2. No discards of "marketable" crab will be allowed for opilio crab and sufficient quota for "marketable" crab must be available. (Legal size for opilio is 3.1 inches, but the industry standard is 4 inches.)

Option 3. No discards of opilio crab with a carapace of 4 inches or greater in width.

Option 4. Discards of incidentally caught crab will be allowed. (This option would allow, for example, incidental catch of bairdi crab in a red king crab fishery to be discarded without counting against a vessel's bairdi quota.)

6.2 Use a co-op model that would have the following options:

1. Formation of Coop

A. There would be one coop formed with each eligible crab processor. Coops would be formed with the processor at the company level, not the plant level. Two or more vessels are sufficient to form a coop. The coop would handle all species of crab.

B. Crab processor eligibility would be determined using the qualifying period identified for allocation of initial IPQs (Eligible Processors, including C/P as revised in 1.7.2.3 option 5. Processors eligible to receive an initial allocation of processing quota shares (PQs) are defined as follows: U.S. Corporation or partnership (not individual facilities) that processed crab for any crab fishery included in the IFQ program during 1998 or 1999.)

C. Each crab vessel is eligible to join only one coop. Which coop the vessel is eligible to join is determined based on which eligible processor that vessel delivered the highest pounds of crab to during the processor qualifying period used for 1.B above.

D. Vessels that join a coop will have their catch history from the vessel qualifying period protected. A vessel that does not elect to join in the coop for which it is eligible remains under an open access fishery.

E. Each vessel's catch history is determined using the formulas identified for calculation of initial quota shares selected under section 1.4 as modified above.

F. A coop agreement would be filed annually with the Secretary of Commerce, after review by the Council, before a coop's catch history would be set aside for their exclusive use. The processor and each boat that is eligible and elects to join the coop must sign the agreement. Only the histories of those boats that sign will be protected.

2. Operation of Coop

A. The coop is responsible for allocating fishing quotas for each species of crab to the coop members. Each vessel is entitled to one vote, and decisions will be made by majority vote unless otherwise agreed to by the coop members.

B. The processor with which the coop is formed gets

i. first right of refusal for all crab harvested by coop members, with coop free to deliver crab to another eligible processor if no agreement is reached; or
ii. a guaranteed amount of coop crab to be delivered, with the amount ranging from 10% to 100%, the remainder of which can be delivered by the coop to either
I. any eligible processor, or
II. any processor, eligible or not (i.e., new entrant allowed).

C. If the processor buys the coop crab, it may process the crab itself or may arrange to have it processed by any other crab processor (i.e., the processor acts as broker for coop crab it does not wish to process).

D. In the alternative, the processor may elect to have the coop act as its own broker for crab the processor does not wish to buy, with the coop free to either sell the crab to another processor or allow individual vessels to make arrangements on their own.

E. Cooperatives may arrange to swap, purchase, or trade deliveries of crab by mutual agreement of the cooperatives concerned.

3. Movement of Vessels Between Coops

A. Three alternatives would be analyzed.

i. Vessels are free to transfer between coops once each year, with agreement of the coop to which they are moving. Vessel catch history goes to new coop.

ii. Vessels may move to a new coop after spending one year in the open access fishery. Coop must agree to entry of new vessel. Vessel catch history is not protected in open access, but is restored upon entering new coop.

iii. Vessels may only leave coop with agreement of the processor. Catch history only goes with vessel if processor agrees.

B. Vessels that did not join a coop in the first year coops are formed may join the coop of the processor to which they delivered the highest pounds ~~dollar value~~ of crab in the previous year after spending one year in the open access fishery.

4. Regionalization, Etc.

A. All other options in the June Draft Council motion regarding regionalization, skipper/crew shares, etc. would be applied to the Lead Fishery Cooperative Model based on the options identified for analysis in those areas.

5. Taxes

Require owners of CP vessels to pay a fee equivalent to the tax that would have been imposed had the CP operated in State waters.

Further, the Council reaffirmed its earlier policy statement that catch history in the crab fisheries beyond December 31, 1998 may not count in future rationalization programs, including a fishery cooperative system.

The Initial Council Review Draft of the plurality coop is complete. Further analysis should focus on the options for an individual quota framework - both one-pie and two-pie - for management of the BSAI crab fisheries. The analysis should include a discussion of the use of the voluntary cooperative as a fishery management tool within the individual quota framework.

The analysis should include information on the alternative fisheries that harvesters and processors have participated in, so that alternative allocation options can be better assessed based on an individual harvester or processor's dependence on a particular crab fishery.

The amount of stranded capital in the processing sector should be analyzed. Options for addressing the stranded processing capital issue, such as a processor buyback program should also be discussed.

The effect of regionalization on ownership caps should be added to the analysis.

The analysis should include a qualitative discussion of cumulative impacts of the options on different classes of vessels.

Motion to require certain socioeconomic data from the crab catching, processing and catcher/processors participants during implementation of the crab rationalization program. This information is to include, but not be limited to: harvest and production costs; expenditure patterns; vessel ownership data including vessel identifiers (name and address files); and employment and earnings data. Individual socioeconomic data will be collected from fishing and processing entities and tabulated by the resource agencies, and maintained in a secure and confidential manner for analysis by the State and Federal fishery management agencies and the NPFMC.

In addition the analysis should include the customary information that meets the requirements of an IRFA, RIR, EA etc.

Adopt by reference the recommendations on page 10 of the Final AP minutes of 2/9/02 and the SSC recommendations regarding improvements and changes to the crab rationalization document outlined in the SSC minutes of 2/7/02.

The state's current authority to set GHLs will be modified to include the setting of TACs under the BSAI Crab FMP.

Finally, the Council requested that the Analysis include to the extent possible a comprehensive qualitative and, where possible, quantitative consideration and examination of the following:

A. Processor ownership interest in BSAI crab harvesting vessels

B. CV ownership interest in processors

C. Processor ownership interest in BSAI crab fishing history

D. CV ownership interest in BSAI processing history

E. Foreign ownership interest in the BSAI crab processing sector

F. Foreign ownership in the BSAI crab harvesting sector

G. The percentage of Harvester QS that will be allocated to the processor sector as a result of processor sector ownership interest in BSAI crab harvesting vessels and BSAI crab fishing history.

H. The percentage of processor PQs that will be allocated to the harvesting sector as a result of harvesting sector ownership interests in the BSAI crab processing sector and BSAI crab processing sector history including CPs.

I. The anti-competitive impacts and economic barriers that may result from the cumulative and combined impacts of Individual Processing Quotas (IPQs) coupled with Regionalization. For example, are the combined impacts and barriers of IPQs and Regionalization different than the individual and respective impacts of IPQs or Regionalization and, if so, to what extent.

J. The general economic and social impacts and the impacts on free and open competition and markets of IPQs, including the Halverson report and Matulich report on a 2-pie IFQ-type program.

K. The impacts of IPQs on free markets and vigorous competition in the BSAI crab industry that may result from (1) processor sector ownership interest in BSAI crab harvesting vessels, (2) processor sector ownership interest in BSAI crab fishing history, and (3) the percentage of harvester QS that may be allocated to the processor sector as a result of processor sector ownership interest in BSAI crab vessels and BSAI crab fishing history.

L. Staff should provide information describing the issues related to recency and potential proxy QS from other crab fisheries for determining the initial allocations in the EAI tanner, WAI tanner, and EAI (Dutch Harbor) red king crab fisheries. The State of Alaska should be consulted on potential options which can be implemented as trailing amendments.

M. An analysis of the implications of rationalization on BSAI and GOA groundfish and other crab fisheries (including tanneri and Pribilof Islands brown king crab fisheries) shall be included in the analysis.

N. A comprehensive section on environmental consequences (including byctach, high grading, stock rebuilding) of the rationalization alternatives shall be included in the analysis.

O. An analysis of the impact of the crab vessel buyback on the rationalization alternatives (including the distribution of allocations and caps of harvester and processor shares and the regionalization alternatives) shall be included in the analysis.

P. The analysis shall include a discussion of the cost recovery program and its interaction with the current State fee program.

Q. The general impacts of IPQs on free markets and vigorous competition, price mechanisms, costs, distribution of rents and other competitive mechanisms:

(1) in the BSAI crab processor sector
(2) in the BSAI crab harvester sector.
(3) in the BSAI crab industry,
(4) in the non-AFA processor sector,
(5) in the Kodiak processor sector,
(6) in the BSAI and GOA fishing industry,
(7) that may result from mergers, acquisitions, combinations and concentrations in the processing sector,
(8) that may result from foreign ownership interest in the processing sector.

R. Restrictions of ownership of Harvester QS by processing entities that have more than 25% foreign ownership interest.

S. Spillover effects on other fisheries.

T. Include a discussion of the percent of GHL purchased by non-eligible processors on an annual basis and the effect on the final QS pool.

U. Include a conceptual discussion on how co-op management might work in the harvesting and processing sectors and a comparison of IFQs/IPQs, to co-ops including the Dooley-Hall co-op structure in addressing the problem statement.

V. Conservation benefits and other implications of each component of the program (IFQ, IPQ, Regionalization Co-ops). Present the analysis of these issues in a consolidated section in the EA/RIR.

Addendum to "Efficiency & Equity Choices in Fishery Rationalization Policy Design" prepared by Dr. Scott Matulich for the ADF&G

DRAFT

Implications of the Halibut and Sablefish Study for Crab Rationalization

While the halibut and sablefish study provides empirical evidence that a harvester-only IFQ redistributed wealth from processors to harvesters in those fisheries, the question remains if the results are qualitatively exportable to North Pacific crab fisheries. The halibut and sablefish fisheries are very different from the crab fisheries. Prior to IFQs, for example, as many as 5,000 vessels delivered halibut to 104 firms statewide. The report noted, however, that the processing sector was relatively concentrated, with 12 firms accounting for 71% of pre-IFQ statewide halibut purchases and nine firms accounting for 68% of statewide sablefish purchases. The crab industry structure, in contrast, appears to be quite different. There are roughly 300 LLP-qualified harvesters and at most 18 processors, excluding the LLP-qualified catcher/processors, depending on year and fishery.

The theoretical evidence provided by Matulich, Mittelhammer and Reberte (1996) and Matulich and Sever (1999) argues that season elongation from quota trading and fleet consolidation creates excess processing capacity which will be bid away by processors through higher exvessel price offers. If processors are sufficiently concentrated to exercise market power over harvesters after IFQs, then, it is conceivable processors might tacitly collude and not raise exvessel price offers to attract more crab.[1] Thus, a cornerstone of whether the qualitative conclusions of the halibut-sablefish study are exportable to crab is the degree of market concentration in the halibut, sablefish and crab fisheries. If halibut and sablefish processing were significantly less concentrated than crab processing, then the conclusions might not be exportable to crab.

[1] Of course, one would also expect to see evidence of such tacit collusion in a concentrated processing sector before the IFQ policy.

Industry concentration is typically measured as a function of the market shares of some or all of the firms in a market. The most common measure of industry market structure/concentration is the four-firm concentration index, C4, which is the share of industry sales accounted for by the four largest firms. It is, of course, arbitrary to focus attention on only the four largest firms. The U.S. government, for example, has also uses an eight-firm concentration index, C8. Another alternative to measure industry concentration is the Herfindahl-Hirschman Index (HHI), which is simply the sum of the squared market shares for each firm in the industry. This concentration index is a function of all firms' market shares. Empirical studies produce similar results regardless of the concentration index.

The C4, C8 and HHI concentration indexes are calculated below for each of four fisheries: halibut, sablefish, Bristol Bay red king crab and BSAI opilio crab. Both halibut and sablefish are managed according to geographic management areas, respectively, along the coast of Alaska. It follows that delivery/buying markets are reasonably well defined by those harvesting areas, so that market share and concentration indexes reflect the area-specific delivery/buying patterns. Fish ticket data was used to aggregate IFQ area-specific catch delivered to the various processing/buying plants. The COAR data was then used to identify plant-parent firm ownership. Firm-level market share was calculated as the cumulative percent of area-wide catch delivered to a unique firm. These calculations were done for each of the IPHC/IFQ management areas.[2] Market share and concentration indexes were calculated for the two, pre-IFQ years, 1992 and 1993.

[2] The sablefish IFQ management areas were overlaid on state statistical areas to determine catch origin and processing/buying destination.

A similar approach was taken to measure market share and processing sector concentration for Bristol Bay red king crab and BSAI opilio crab fisheries. However, there was only one management area for each crab fishery. The two years considered were 1998 and 1999.[3]

Results

The three concentration indexes are presented in Table 1 for each of the four species, by year. Both a weighted average mean (where each area-specific concentration index is weighted by area-specific catch relative to statewide landings) and the statewide low and high index range are presented for halibut and sablefish. Since both Bristol Bay red king crab and BSAI opilio crab are harvested n a single area, no range is reported.

Table 1. Comparison of Alternative Concentration Indexes for Pre-IFQ (1992-1993) Halibut and Sablefish Processing and for 1999-2000 Red King Crab and Opilio Crab Processing.

Concentration Index		Halibut		Sablefish		B.B. Red King Crab		Opilio Crab	
		1992	1993	1992	1993	1998	1999	1998	1999
C4	mean	57.1	54.9	58.6	66.5	63.1	64.5	63.3	62.9
	range	53.3-100	51.3-100	58.3-100	58.3-100	na	na	na	na
C8	mean	77.4	76.9	81.9	88.6	93.7	93.1	90.9	89.4
	range	71.9-100	77.1-100	70.8-100	87.3-100	na	na	na	na
HHI	mean	1101	1026	1367	1464	1307	1381	1333	1378
	range	892-3677	864-5128	708-100	876-9420	na	na	na	na

The "mean" is the statewide, weighted average processing/buying concentration index across all IFQ statistical areas in which halibut and sablefish were harvested. The "range" reports the area-specific lowest and highest concentration indexes.

[3] 1999 is the last year for which processing history is being considered in the initial allocation of crab quota.

There is striking similarity in buying/processing concentration across species; the buying/processing sector was concentrated in all four fisheries. The halibut industry was least concentrated. However, the top four firms still averaged in excess of 54% of the market share, by region. The top eight halibut firms captured, on average, more than three-quarters of the market, while the least concentrated catch area reflects nearly the same level of overall concentration as the average. Sablefish processing was somewhat more concentrated than halibut processing. The top four firms averaged 59-67% of the market share, depending on year. The top eight firms captured, on average, 82-89% of the market.

Processing concentration in the two crab fisheries was very similar to sablefish. The four largest buyers captured 63-65% of the market, while the top eight captured 89-94% of the market.

Not surprisingly, the Herfindahl-Hirschman Index is very consistent across species and years. It provides similar evidence of market concentration as the C4 and C8 concentration indexes.

Implications

Both halibut and sablefish processing sectors were concentrated before the introduction of IFQs (and became even more concentrated after introduction of IFQs). Despite the high degree of market concentration, halibut and sablefish processors did not exercise market power over the atomistic harvesting sectors. Ex-vessel prices paid to harvesters after IFQs more than doubled for halibut, on a 65% increase in wholesale price. Yet, quasi rents retained by processors dropped 56% after IFQs were implemented in both fisheries. IFQs liberated the halibut market, allowing more fish to be diverted into the higher-value fresh market. Sablefish

experienced no such product form change; it remains a frozen product destined for Asian markets. Accordingly, changes in the sablefish market are more likely to represent what one should expect if the Bristol Bay red king crab and BSAI opilio fisheries are rationalized with a harvester-only IFQ. In the case of sablefish, the processing sector was even more concentrated than in the halibut fishery. Nevertheless, this concentration could not avert processing quasi rents from dropping an estimated 75% in the sablefish industry following implementation of IFQs.

The empirical evidence that market shares and industry concentration are quite similar across halibut, sablefish, Bristol Bay red king crab and BSAI opilio crab fisheries suggests that market power among crab processors is unlikely to be an adequate deterrent to collapsing quasi rents under a harvester-only IFQ crab rationalization design. Differential market power in the selling sectors (during price formation) portends potentially larger redistribution of quasi rents from crab processors to harvesters. The harvesting sector was (is) more concentrated in the crab fisheries at the point of price formation by virtue of an effective, monopolistic bargaining association. Thus, if the similarly concentrated halibut and sablefish processing sectors were unable to exercise market power over harvesting sectors that were price takers, one should expect at least a qualitatively similar redistribution in crab fisheries, where countervailing power exists. Simply put, the fleet consolidation and season elongation forces that led to a redistribution of quasi rents from processors to harvesters in the IFQ halibut and sablefish fisheries will exist under a similar crab rationalization design. The extent of redistribution that would occur under a harvester-only IFQ remains an empirical question.

**Preliminary Materials for the
North Pacific Fishery Management Council on the
Environmental Impact Statement for the
Fishery Management Plan for Bering Sea/Aleutian Island King and Tanner Crabs**

April 3, 2002

Lead Agencies:	National Marine Fisheries Service (NMFS) Alaska Region, Juneau In consultation with the North Pacific Fishery Management Council (NPFMC)
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Contents

Introduction

This report provides the North Pacific Fishery Management Council (Council) with preliminary materials for making decisions for the Environmental Impact Statement (EIS) for the Fishery Management Plan for Bering Sea/Aleutian Island King and Tanner Crabs (FMP). The primary purpose of this report is to provide information to the Council in making its recommendations on the range of alternatives to be addressed in the EIS. It provides a preliminary purpose and need for the action, a description of the scope of the EIS, a summary of the comments received during the scoping public comment period, the environmental and socioeconomic issues identified during scoping and the Council process, and describe potential alternatives. Prior to drafting an EIS, the lead agency must determine the precise nature and extent of the proposed action, the range of alternatives, the specific impacts to be evaluated, and the methods used to determine their evaluation.

Included in this report are excerpts on National Environmental Policy Act (NEPA) guidance from the Council on Environmental Quality (CEQ) regulations, The NEPA Book (Bass et al. 2001) and How to Write Quality EISs and EAs (The Shipley Group 1998) to assist the Council and the public understand the NEPA requirements for an EIS and how the pieces of an EIS fit together. All excerpts are in italics. Using this guidance, we are asking the Council for input on each section to ensure that the EIS is progressing in a manner that the Council agrees with.

Purpose and Need for the Action

We are asking the Council to review and comment on this purpose and need for the proposed action.

*NEPA Guidance: The statement of purpose and need helps the lead agency select the range of alternatives to be evaluated in the EIS. This section explains the underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action (40 C.F.R. 1502.13), and the benefits that would be realized by carrying out the proposed action. Make your purpose and need an honest, full explanation of why the agency is considering an action. **Explain who wants to do what and where and why they want to do it.** The "need" to be addressed in the statement is the overall reason for the action while the "purpose" is a set of specific objectives to be achieved by the action. An EIS need include only those alternatives that would achieve at least some of the federal agency's objectives as set forth in the statement of purpose and need. If the purpose and need for the project are rigorously defined, the number of solutions which will satisfy the conditions can be more readily identified and narrowly limited. If properly described, it also limits the range of alternatives which may be considered reasonable, prudent, and practicable in compliance with the CEQ regulations. The federal agency's preferred alternative is the one that it believes would best fulfill the purpose and need of the action. (Bass et al. 2001, The Shipley Group 1998)*

The Council is proposing a new management regime that rationalizes the crab fisheries in the Bering Sea and Aleutian Islands (BSAI). A rationalization program is a limited access program that allocates shares of the harvesting privilege of the crab resource to individuals or groups of harvesters. It may also allocate quota to process crab to processing companies. Allocating shares of the resource significantly changes how people fish and how the fisheries are managed. Thus, a rationalization program potentially impacts the human environment.

Problems facing the BSAI crab fisheries are overcapitalization and the consequent race for fish and resource conservation and management problems. The race for fish exists because harvest capacity greatly exceeds the amount of crab available for harvest. Under the current management regime, each fishery is opened on a specific date with a specified harvest limit. Fishermen compete to harvest as much crab as they can before the harvest limit is reached and the fishery closes. This race for fish causes short, unprofitable seasons, resource and conservation problems, unsafe fishing conditions, and management difficulties. These problems are illustrated by the 2001 Bristol Bay red king crab regular commercial fishery in which 232 vessels caught 7.8 million pounds of crab in 3 days and 8 hours. Due to the management difficulties of determining the harvest of so many vessels in such a short amount time, the preseason guideline harvest level of 6.6 million pounds was exceeded by 1.2 million pounds. Some vessels fished during a storm, causing significant damage to 3 vessels and the loss of one human life at sea. The management tools in the existing FMP do not provide managers with the ability to effectively solve the excess harvesting capacity and resource allocation problems in the BSAI crab fisheries.

The need for a rationalized crab management regime is explained in the Council's *BSAI Crab Rationalization Problem Statement*:

> Vessel owners, processors and coastal communities have all made investments in the crab fisheries, and capacity in these fisheries far exceeds available resources. The BSAI crab stocks have also been highly variable and have suffered significant declines. Although three of these stocks are presently under rebuilding plans, the continuing race for fish frustrates conservation efforts. Additionally, the ability of crab harvesters and processors to diversify into other fisheries is severely limited and the economic viability of the crab industry is in jeopardy. Harvesting and processing capacity has expanded to accommodate highly abbreviated seasons, and presently, significant portions of that capacity operate in an economically inefficient manner or are idle between seasons. Many of the concerns identified by the NPFMC at the beginning of the comprehensive rationalization process in 1992 still exist for the BSAI crab fisheries. Problems facing the fishery include:
>
> 1. Resource conservation, utilization and management problems;
> 2. Bycatch and its associated mortalities, and potential landing deadloss;
> 3. Excess harvesting and processing capacity, as well as low economic returns;
> 4. Lack of economic stability for harvesters, processors and coastal communities; and
> 5. High levels of occupational loss of life and injury.
>
> The problem facing the Council, in the continuing process of comprehensive rationalization, is to develop a management program which slows the race for fish, reduces bycatch and its associated mortalities, provides for conservation to increase the efficacy of crab rebuilding strategies, addresses the social and economic concerns of communities, maintains healthy harvesting and processing sectors and promotes efficiency and safety in the harvesting sector. Any such system should seek to retain parity between the harvesting and processing sectors, including healthy, stable and competitive markets.

The purpose of the proposed action is to provide a management program that improves resource conservation and management; decreases bycatch and deadloss; decapitalizes the fisheries; provides economic stability for harvesters, processors, and communities; and improves safety at sea. Given that the problems in the

BSAI crab fisheries are due to overcapacity and the race for fish, the Council has determined that the institution of some form of rationalization program is warranted. The allocation of harvesting and possibly processing privileges would allow harvesters and processors to manage their operations in a more economically efficient manner since they no longer must compete with other users for a portion of the available resource. Rationalization of the harvesting sector eliminates the derby-style race for fish by providing economic incentives to consolidate, thus reducing capacity by decreasing the number of vessels participating in the fishery. The extent of this consolidation depends on efficiency differences across the fleet, how the rationalization program is set up and what restrictions are placed on amassing shares. Shares are expected to be consolidated on the most efficient vessels, thus removing excess capital from the fishery and allowing remaining vessels to fish for a longer amount of time. With a guaranteed share of the catch, fishermen can choose when to fish depending on weather conditions, market considerations, and other factors. Eliminating the race for fish is also thought to decrease the potential for harvest limit overruns that can result from the difficulty of monitoring catches during short fishing seasons with many vessels participating.

Scope of the EIS

We are asking the Council to review and provide input on the proposed scope of the EIS.

*NEPA Guidance: A programmatic EIS is prepared for a broad federal action, such as the adoption of a regulation, policy, plan or program. A programmatic EIS is required only when there is a proposed formal agency program. The preparation of a programmatic EIS facilitates and expedites the preparation of subsequent project-specific NEPA documents through the use of a process called "tiering." Tiering refers to the coverage of general matters in broader EISs with subsequent narrower EISs or EAs incorporating by reference the general discussions [from the programmatic EIS] and concentrate solely on the issues specific to the [subsequent projects-specific action]. Although **NEPA's legal requirements are the same for both the programmatic EIS and the project-specific EIS**, lead agencies generally focus on different factors when preparing each of them. (Bass et al. 2001)*

The purpose of the EIS is to provide decisionmakers and the public with an evaluation of the environmental and economic effects of the proposed action and alternatives to the proposed action. The EIS will examine the direct, indirect, and cumulative effects of the alternatives, including the proposed action and status quo, on the physical, biological, and human environment. The EIS will be programmatic in scope because the proposed action is a program. According to the CEQ regulations, a programmatic EIS is prepared for a broad federal action, such as the adoption of a plan, program or policy. The EIS will also include an environmental assessment of the FMP overall and the effects of the fisheries prosecuted under the FMP.

The scope of this EIS will include decisions before the Council and also before the State of Alaska, which shares the responsibility for the management of BSAI crab. The Council will decide on whether to continue management under the existing crab FMP or to manage crab under a rationalization program. An underlying principle of this EIS is that a rationalization program will affect most aspects of BSAI crab fishery management by making some existing management measures unnecessary and requiring modification of other management measures. If the Council recommends a rationalization program, the State will make changes to State regulations governing the BSAI crab fisheries so that fisheries management responds to the unique demands of the rationalization program. To the extent possible, the EIS will identify alternative

rationalization programs, alternative modifications to the existing management measures in the FMP, and ranges of potential changes to State management measures. Once these have been identified, the EIS will then analyze the effects on the human environment of the status quo and each alternative, and discuss ways to avoid or mitigate any adverse effects. Alternatives considered but rejected will also be briefly addressed in this EIS.

In order to analyze the proposed action, the EIS needs to provide the decisionmakers and the public with a basic understanding of the fishery, including a description of the historic and existing fishery, against which they can judge the alternatives. This EIS will analyze the environmental effects of all activities authorized under the FMP, the current suite of FMP management measures, as amended over the years, and the State and Federal regulations developed to implement those measures. As such, the scope of this analysis is not limited to alternative rationalization programs. By thoroughly analyzing the status quo, subsequent amendments to the FMP can tier off this EIS, thus focusing that NEPA analysis on the issues specific to the future proposed action. The EIS will not present alternatives to specific elements in the FMP that are not impacted by the proposed action because these are outside of the purpose and need for the action and were not brought up during scoping. FMPs are adaptive and alternatives to specific FMP measures can be adopted by the Council in the future, even if they are not foreseeable now and not specifically laid out in this EIS. A programmatic look at the existing FMP will also provide valuable information to the State in managing these fisheries and in making future management decisions beyond those required to manage under a rationalization program.

Summary of Public Scoping

Scoping for the EIS began with the publication of a Notice of Intent in the Federal Register on September 20, 2001 (66 FR 48410). Public comments were initially due to NMFS by November 16, 2001; however, NMFS extended the scoping period until December 10, 2001 to provide the public with more time to develop comments (66 FR 59771). The CEQ has issued informal guidance for the scoping process, which we have followed. The Draft EIS will be based on and prepared from the issues identified in the scoping process. NMFS presented the Council with a report on the results of public scoping in February 2002.

Scoping is an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. A principal objective of the scoping and public involvement process is to identify a reasonable range of management alternatives that, with adequate analysis, will delineate critical issues and provide a clear basis for distinguishing between those alternatives and selecting a preferred alternative.

NMFS held three public scoping meetings. At the scoping meetings, NMFS requested written comments from the public on the range of alternatives to be analyzed and on the environmental, social, and economic issues to be considered in the analysis. Each scoping meeting was held in conjunction with another formal public meeting on BSAI crab fishery management to make it convenient for interested public to attend. In addition to the Notice of Intent, the scoping meeting was on the agenda for each of these meetings. The scoping meetings were attended by fishermen; vessel owners; fishing and processing industry representatives; representatives from environmental organizations; ADF&G, Council, NMFS, and NOAA-GC staff; community representatives; and the general public. Attendance lists for each meeting are filed in the administrative record and available on request.

Three public scoping meetings were held as follows:

Anchorage, Alaska: Thursday, September 20, 2001, from 2-4 p.m., at the Hilton Hotel, 500 West 3rd Street. This meeting was held in conjunction with the Council's Crab Plan Team meeting and approximately 15 people attended, including Plan Team members.

Seattle, Washington: One on Monday, October 1, 2001, from 2:30-4:30 p.m., at the Leif Erikson Hall, 2245 N.W. 57th Street. This meeting was in conjunction with the Annual Bering Sea/ Aleutian Islands Crab Industry Meeting and approximately 86 people attended. The second meeting was on Thursday, October 4, 2001, from 7-9 p.m., at the airport Doubletree Hotel, 18740 International Blvd., in conjunction with the October Council meeting. Approximately 23 people attended this meeting.

Summary of Comments and Issues Addressed in Written Comments Received During Scoping

NMFS receive three written comments during the scoping period. Copies of the three comments were provided to the Council at the February Council meeting and are available in the administrative record. The comments are summarized below.

Comment 1: Consider Alaskan Communities.

This comment requested consideration of the impacts of proposed rationalization programs on Alaskan coastal communities, and the City of Unalaska specifically. The comment explained the importance of crab harvesters and processors to the economic viability of the city and the need for the development of an alternative management system that will lead to industry consolidation. The comment focused on four main areas of concern:

- Vessel safety
- Resource management
- Economic stability
- Excess harvesting capacity

The comment also recommended NMFS comply with NEPA and the Magnuson-Stevens Act national standards as it develops the EIS.

Comment 2: Analyze a harvester-only IFQ alternative.

This comment recommended moving forward with a harvester-only individual fishing quota (IFQ) program before analysis of a processor quota (PQ) program. The comment discussed issues in support of an harvester-only IFQ program over a two-pie IFQ program, and asserted that:

- Considering processor quota along with IFQ will delay implementation of an IFQ program because of the complexities of a PQ program,
- IFQs are an accepted and reasonable management tool for rationalization of the BSAI crab fleet, and will address significant resource conservation and management objectives, as well as specific economic and social objectives,
- PQs are not authorized by Congress and there is no precedent PQ program,
- PQ has anti-trust implications,

- PQs equate to a distribution of ownership rights of a natural resource to a small class of large businesses, many of which are vertically integrated and multinational.

Comment 3: Make conservation and sustainability of biological resources the highest priority for a rationalization program.

This comment recommended that the EIS evaluate rationalization alternatives against the following conservation and community objectives:

- Reward clean fishing (promote low bycatch and minimize impact on ocean floor).
- Create opportunity for future generations of independent fishermen.
- Prevent excessive consolidation and vertical integration of the seafood industry.
- Preserve healthy competition among seafood processors and prohibit processor monopolies.
- Promote healthy community fishing economies and maintain diverse independent fishing fleets.
- Recognize historic regional fishing and processing patterns.
- Require good stewardship of the public's marine resources as a condition for continuing participation in IFQ fisheries.

This comment also recommends that the EIS evaluate the success of the crab pot escape rings and mesh size required by State of Alaska regulations in reducing crab bycatch in the crab fisheries. In addition, the comment recommends that the EIS detail with GIS mapping the spatial extent of the crab fisheries, degree of fishing effort, and spatial extent of the crab stocks.

This comment also raises a number of issues outside the scope of this EIS. The comment recommends changes to the groundfish fisheries which are not under the management jurisdiction of the BSAI crab FMP and therefore will not be directly considered in the EIS for the BSAI crab FMP.

Additional Comments

In addition, one verbal public comment suggested an alternative structured around exclusive Federal management of the BSAI crab fisheries.

Other Scoping Efforts

Significant issues were also raised during a trip Mark Fina (Council staff) and Gretchen Harrington (NMFS staff) took to Dutch Harbor/Unalaska and Akutan in October 2001. The purpose of the trip was to meet with members of industry, harvesters (vessel owners, skippers, and crew) and processors (shore-based and catcher/processors), and ADF&G staff to listen to their position on various issues surrounding crab rationalization. In addition, staff observed the landing and processing of red king crab from Bristol Bay.

In developing alternative rationalization programs, a number of meetings to discuss rationalization have occurred in the Council arena. Beginning in late 1999, interested parties met on an informal basis in a series of meetings to discuss rationalization. In December 2000, this ad hoc industry committee was formalized into the Council's the BSAI Crab Rationalization Committee. The Council appointed members to the BSAI Crab Rationalization Committee, which included representatives for harvesters, processors, skippers and crewmen, communities and environmental organizations. The Committee was tasked with developing elements and options for analysis and reporting to the Council at the April 2001 meeting. The Committee

met once in February and once in March, 2001. In summary, the BSAI Crab Rationalization Committee made significant progress during its meetings in developing a set of elements and options for Council consideration and analysis of a crab rationalization program. Also, the Council, the Advisory Panel and Scientific and Statistical Committee have discussed rationalization at a number of meetings since October 1999, focusing on the alternatives, elements, and options under consideration during the June, October, and December 2001 meetings. The public comments received and the issues discussed during these meetings are part of the scope of the EIS and are included under relevant issues below. They are also discussed in detail in the Initial Council Review Draft of BSAI Crab Rationalization Alternatives, which is available on the web at http://www.fakr.noaa.gov/npfmc/default.htm.

Relevant Issues

We request that the Council review and comment on the proposed list of relevant issues for the proposed action.

NEPA Guidance: CEQ regulations indicate that agencies are responsible for a clear and efficient definition of issues. An issue is an effect (or a perceived effect, risk, or hazard) on a physical, biological, social, or economic resource. An issue is not an activity; instead, the predicted effects of the activity create the issue. Your goal is to educate readers as to why a particular issue is truly relevant (and thus important to the decision at hand). (The Shipley Group 1998).

This section defines and summarizes the relevant issues raised during scoping and the Council process. The issues are organized by the five problem areas identified by the Council. These issues will analyzed in depth in the EIS, as required by the CEQ regulations (1502.7(2)).

The stakeholders impacted by the crab FMP and proposed rationalization programs include crab vessel owners, skippers who do not own vessels, crew, owner/operators, crab processors, communities, crab consumers, participants in other State and Federal managed fisheries, and the general public.

1. Resource conservation, utilization and management problems

Crab mortality - legal male crabs

Harvest limits are set to account for all sources of fishery induced mortality on legal male crabs so that total mortality in the fishery does not exceed a threshold. Thresholds are set to ensure sustainable harvests. When the fisheries cause mortality that is not accounted for in the harvest strategy, stock abundance may be negatively impacted. Two sources of unaccounted for mortality of legal male crabs of the target species are harvests above the guideline harvest level and highgrading. Harvests that exceed the harvest level are difficult to prevent in the derby-style fisheries. Highgrading is sorting through the legal crab for the largest, cleanest crab, and discarding the remaining legal crab to ensure that only the highest-priced portion of the catch is landed and counted against the quota. This leads to additional fishing mortality in excess of the quota. Highgrading is an environmental concern because it may alter the composition of the stock by removing only the largest, cleanest crab. Highgrading may be a problem in the rationalized fisheries.

Fishery Impacts on ESA species

NMFS has determined that the crab fisheries, as prosecuted under the FMP, do not adversely affect any listed species or their critical habitat in the action area. A rationalization program will need to be evaluated to determine if it changes the prosecution of the fisheries in such a way that adversely affects listed species or critical habitat in the action area.

Manageability of fisheries

Derby-style fisheries are difficult to manage because of the many participants, especially when the harvest amounts are small. Since the goal of most management measures is conservation, the increased ability of managers to ensure compliance with harvest limits and other regulations has conservation benefits. Seasons are short and it's difficult to prevent the fleet from exceeding the harvest level. Monitoring provides information to managers on the amount of catch and bycatch, and the location of harvest. This information is vital for setting the harvest levels, measuring the effectiveness of bycatch reduction measures, and determining when each vessel has reached its quota. Many inefficient management measures are put in place to limit effort that may no longer be necessary under a rationalization program.

Data collection

Data collection is important for establishing the scientific foundation on which the fishery is managed. Rationalization programs require extensive data collection to ensure compliance. A rationalization program will increase the need for sophisticated monitoring, catch accounting, recordkeeping, reporting, and enforcement procedures.

Habitat Impacts

The extent to which pot gear impacts the benthic habitat is unknown. Any new management program should not increase damage to habitat from pot gear, either single pots or longlined pots. Increased damage may come from greater numbers of pots deployed or changes in location of the fishery.

Spillover effects on other fisheries - harvester side

If fishermen are allocated a portion of the crab harvest, this may free-up vessels to target other fisheries, such as Pacific cod or crab in state waters. Spillover effects can be mitigated by sideboard measures.

Stewardship

The NRC report discusses stewardship in terms of a fisherman's increased incentives for conservation motivated by the belief that a healthy resource will increase the value of each fisherman's individual quota. Public comment recommends that the Council require that good stewardship of the public's marine resources be a condition for continuing participation in the IFQ fisheries.

Abundance of stocks

Crab stock abundance fluctuates with changes in environmental conditions. Crab stocks experience cyclical abundance. Currently, many stocks are in periods of low abundance and NMFS has declared three stocks overfished. When stocks are low, the problems of overcapacity are exasperated because each harvester can only harvest a small percentage of a small harvest limit. Thus, many fishermen cannot harvest enough crab in a season to cover the costs of fishing. Also, when stocks are low, management difficulties increase and actual harvest often exceeds the pre-season harvest limit. Due to these management problems, a minimum harvest level is established under which the fishery is closed. Bycatch and handling mortality can negatively impact stock abundance when the stock is at low abundance levels, delaying stock rebuilding.

Seasons

The State of Alaska specifies seasons according to FMP criteria. Seasons last until the guideline harvest level has been reached. With small harvest levels and the race for fish, crab fishing seasons are very short. Rationalization may result in longer seasons, which slow down the pace of the fisheries and allow the fishermen to improve fishing methods, such as gear operation and sorting on deck. With more time, fishermen would be able to soak pots on the bottom longer to allow the escape mechanisms to work, which would reduce bycatch. Also, with more time, fishermen would be able to improve handling methods and reduce the mortality of all crabs brought on deck. Changes to the length of fishing seasons would still be within the biological constraints of the FMP.

Pot limits

Pot limits restrict the number of pots deployed by a vessel to limit harvest capacity. Pot limits also help ensure that vessels do not exceed their ability to manage the pots they set. Increased season lengths and soak times may reduce the need for pot limits designed to limit effort on the grounds and reduce wasteful fishing practices resulting from deploying more pots than could be retrieved during a short fishing season. Relaxing pot limits may improve efficiencies for the fishing fleet. It may also cause environmental consequences that will need to be evaluated.

2. Bycatch and its associated mortalities, and potential landing deadloss

Deadloss

Deadloss is the amount of dead crab landed at the dock. It is a direct result of the extended amount of time a crab spends in the boat. Deadloss can be increased by having diseased or dead crab in the tank with live crab. Currently deadloss is about 1 percent of all crab landed. Because rationalization could change fishing practices, it is possible that the amount of deadloss increase or decrease as well.

Bycatch

Bycatch in the crab fisheries is predominantly female crab, small crab, and other species of crab not targeted by the fishery. Crab bycatch can be up to two thirds of the total catch and all bycatch is discarded. Its is estimated that 25% of discarded crab die from handling. This negatively effects stock abundance.

3. Excess harvesting and processing capacity, as well as low economic returns

Excess capacity in the crab harvesting sector.

Excess capacity in the harvest sector occurs if the harvest capacity of vessels participating in the crab fisheries exceeds the amount of crab available to harvest. Crab abundance is cyclical and fishing effort in the crab fisheries has increased during times of high abundance. This level of fishing capacity is retained during periods of low abundance. Derby-style fisheries also encourages excess harvest capacity as fishermen increase vessel capacity to catch more than the other fishermen. With the current level of capacity and stock abundance, each vessel is harvesting a share of the resource that is too small to be economically efficient. Vessels that might have left the fishery for economic reasons still participate because of the future prospects of a rationalization program and the associated benefits of receiving quota.

Excess capacity in the processing sector.

Excess capacity in the processing sector occurs if processing capacity dedicated to crab exceeds the amount of crab available to process. The current crab processing capacity is designed to process crab quickly at the end of seasons when the entire fleet offloads its catch. A program that rationalizes the harvesting sector would spread deliveries to processors over a longer time period. Processors could then have excess processing capacity. The rationalization of the fishery could result in a reduction of processing capital utilized in the crab fisheries.

Derby fishery

Fishermen are compelled to race to catch as much crab as possible before the season closes, resulting in very short seasons when harvest levels are low. Racing to catch crab often leads to fishing in rough weather and make other choices based on time efficiency, such as pulling pots as quickly as possible limiting the ability of fishers to move to avoid congregations of female and small male crabs. In response to the derby fishery, managers have implemented measures, such as pot limits and fair-start measures, to control effort in the fisheries. These effort limits create inefficiencies in how the crab are harvested.

Availability and quality of crab to consumers

Currently, crab is processed primarily at the end of the each season. The majority of the product is processed into frozen crab legs. Lengthening the seasons would provide processors with more time to process crab and potentially the ability to develop other products and provide live crab to the market over a longer period.

Fair and equitable allocation of interests in the fisheries

Fairness and equity in eligibility to participate and allocation of interests in a fishery are important to the management of public resources. Several factors could affect the fairness of a quota distribution including breadth of the distribution and historical reliance. A broad distribution of quota may better reflect reliance on the fishery. The Magnuson-Stevens Act states that any new IFQ

program shall provide for a fair and equitable initial allocation of individual fishing quotas (§ 303(d)(5)(C)).

4. Lack of economic stability for harvesters, processors and coastal communities

Entry Opportunities

Entry into the harvesting and processing sectors can be affected by fishery management. The current management program limits entry to those who meet certain participation criteria. Programs that allocate shares in a fishery can either create entry opportunities or limit opportunities based on several factors.

Excessive shares

Excessive share concerns in a fishery arise when interests are consolidated to the extent that persons can influence the market for outputs, influence labor markets, influence opportunities for entry, or capture a disproportionate share of the benefits of a fishery. Management structures can influence excessive shares by limiting entry or permitting the consolidation of interests by a relatively few number of participants. Excessive share provisions typically are intended to prevent excessive consolidation and vertical integration of seafood industry. The Magnuson-Stevens Act states that any new IFQ program shall prevent any person from acquiring an excessive share of the quotas issued (§ 303(d)(5)(C)).

Competition

Competition can be used to facilitate efficiency and ensure a reasonable return on investment to skippers and crews and the harvesting and processing sectors. Competition is important for fair price negotiations between harvesters and processors. Competition can also affect the distribution of activity and the benefits of the fisheries among communities. Management can influence the market power of these different interests to ensure a fair distribution of the resource rents. Vessel owners are concerned that the Council may recommend a rationalization program that eliminates competition and thus disadvantages harvesters in negotiating price with processors.

Skipper/crew concerns

Changes in management can affect the interests of skippers and crew in a fishery. Skipper and crew shares, which are the percentage of the vessel earnings paid to skippers and crew, can be affected by management. A quota system that allocates quota to vessel owners only, without any provisions to allocate or provide assistance for the purchase of quota share would create a barrier to entry by skippers and crew. Also, as the number of vessels participating in the fisheries decreases, skippers and crew will loose their jobs.

Community stability

Many communities are home to crab processors and harvesting vessels. With a change in management (and consequent consolidation) may come decreases in the numbers of vessels and

processing facilities in the crab fisheries. Communities are concerned that, under rationalization, processors may leave the local area. In addition, communities could be affected by changes in the regional distribution of harvest vessels. On the other hand, a rationalization program could provide economic stability to communities that are home to the remaining vessels and processors. Public comment recommends that a rationalization program promote healthy community fishing economies, maintain diverse independent fishing fleets, and recognize historic regional fishing and processing patterns.

Spillover effects on other fisheries - processor side

Changes in the processing sector under crab rationalization could have influences on other fisheries. Processors that are successful in a rationalized crab fishery could use resources developed in the crab fisheries to expand activities in other fisheries. In addition, consolidation of crab processing could lead to the exit of processors from other fisheries, as well as the crab fisheries. If processors that process crab as well as other species close facilities, fishermen that target other species, such as Pacific halibut and Pacific cod, may be left with fewer processors to which to deliver their harvests. Any decline in competition among processors could affect the ex vessel price realized for harvests and could increase delivery costs for harvesters.

Efficiency in the fishery

Management of a fishery can affect the efficiency of the harvest and processing sectors. If the incentive structure of the fishery promotes cost minimizing production, benefits can be realized by both participants and consumers. The change to a rationalized fishery could improve efficiency in the fishery.

5. High levels of occupational loss of life and injury

Safety

Safety is an important concern for the crab fisheries because of when the fisheries occur, primarily in the winter, and the fact that crab vessels haul and transport pot gear. Between 1990 and 2001, 61 fatalities occurred and 25 vessels were lost in the BSAI crab fisheries. Current management creates incentives for fishers to risk vessels and lives to fish when the season is open because harvests are maximized by maximizing time spent fishing. In cases of very short seasons, harvest opportunity is forgone completely if a vessel does not fish when the season opens. Changes in management in a rationalized fishery could reduce incentives to fish in dangerous weather.

Alternatives

NEPA Guidance: The content and scope of the discussion of alternatives should depend on the nature of the proposed action. The evaluation of alternatives is governed by the rule of reason that requires a Draft EIS to consider a range of alternatives that could accomplish the proposed action's purpose and need. The court has stated that the content and scope of the discussion of alternatives should depend upon the nature of the proposed action (NRDC v. Callaway). In general, if the statement of purpose and need has been clear and concise and all of the alternatives satisfy the purpose and

need, then the courts will uphold the alternatives discussion in the EIS. The number of alternatives within the reasonable range is directly related to the statement of purpose and need. (Bass et al. 2001, The Shipley Group 1998)

The proposed action is a rationalization program. The Council has developed alternative rationalization programs, with numerous elements and option, during an extensive public process over the course of eight Council meetings, six ad-hoc industry meetings, and four Council Crab Rationalization Committee meetings. The alternative rationalization programs are fully described in the Council's Initial Review Draft for the Bering Sea Crab Rationalization Program Alternatives. This report will be a appendix to the EIS. The Council has also received a report on the results of scoping for this EIS, which provided public comments on FMP alternatives. The Council plans on choosing its preferred rationalization program alternative in June 2002.

The decision before the Council now is how to construct alternatives for the EIS. Decisions on the exact content of alternatives may be made in June, when the Council chooses its preferred alternative. The CEQ regulations explain that the discussion of alternatives should present the environmental impacts of the proposed action and the alternatives to the proposed action in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The CEQ regulation require an EIS to consider three types of alternatives, a no action alterative, alternatives describing other reasonable courses of action, and an alternative that advances mitigation efforts to the proposed action (40 CFR 1508.25(b)).

The no action alternative is status quo FMP. The preferred alternative in the EIS will be the rationalization program the Council identifies as its preferred alternative. The Council will select a preferred alternative from the range of alternatives, elements, and options presented in the Council's analysis for alternative rationalization programs. When the Council chooses its preferred alternative, it may want to put forward other alternatives.

At this stage the range of alternatives for Council consideration is as follows:
Alternative 1 - Status Quo FMP
Alternative 2 - Rationalization FMP
Alternative 3 - no fishing FMP

One outstanding issue is whether or not a specific 'mitigation measures' alternative is necessary. NOAA-GC has interpreted the CEQ regulations as requiring a separate mitigation alternative (Letter from Craig O'Connor, December 11, 2001, page 7). The letter states that without a discussion of a mitigation measures alternative, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects. Another point of view is that all management alternatives mitigate unregulated fishing. So the proposed action would be a mitigation measures alternative to status quo and unregulated fishing.

If the decision is made that a mitigation measures alternative is good idea, we proposes a 'no fishing' alternative as the mitigation alternative, because the environmental effects, most likely, will be from the prosecution of fisheries. A 'no fishing' alternative will allow the EIS to properly evaluate the magnitude of the effects on the human environment caused by the proposed action and no action alternatives. The Council may also choose another mitigation alternative that would mitigate the effects of the crab fisheries,

such as a rationalization program with additional environmental mitigation components, such as 100% observer coverage.

One unusual aspect of this EIS is that Congress may define the rationalization program, and that program may not mirror the any of alternatives recommended by the Council. At this stage, we think that once Congress takes action, NMFS, the Council, and ADF&G will need to assess the situation and determine the best way to proceed.

Cooperating Agencies and Tribal Governments

ADF&G and the U.S. Coast Guard have agreed to participate in the preparation of the EIS as cooperating agencies. ADF&G is also preparing sections of the EIS, as discussed below. On November 1, 2001, NMFS mailed a letter to 113 Alaska tribal governments, providing information about the EIS and soliciting input from interested parties. As of the date of this report, no meetings have been scheduled and no correspondence has been received from any of the tribal governments.

Preparation of the EIS

A steering committee was created for the EIS. The steering committee consists of Jim Balsiger, NMFS; Chris Oliver, Council staff; Kevin Duffy, ADF&G; Robert Otto, NMFS-Alaska Fisheries Science Center (AFCS); Tom Meyer, NOAA-GC; Ramona Schreiber, NOAA; and Tamra Faris, NMFS. The Steering Committee's charge is to ensure the scope of analysis adequately spans the action being taken and to coordinate staff tasking among the various government agencies and departments.

We have determined that the best way to organize the preparation of this analysis is to convene an analytical team comprised of NMFS staff, Council staff, and ADF&G staff, supplemented by contracts for the environmental justice and cumulative impact analyses. We have established staff assignments for the preparation of this analysis and confirmed the staff assignments with ADF&G, the Council, and the AFSC. The analytical team consists of Gretchen Harrington, NMFS; Robert Otto, Brad Stevens, AFSC Kodiak Lab; Herman Savikko, Wayne Donaldson, Forrest Bowers, ADF&G; Mark Fina, Council; and Jessica Gharrett, NMFS-RAM. We have contracted with URS Corporation for the cumulative impacts analysis; URS will revise these sections in response to public comments between draft and final EIS, and edit the entire document for internal consistency. We have also established deadlines for completing each section to ensure timely completion of the EIS.

The first analytical team meeting was in November 2001. At this meeting, the team developed an analytical framework for identifying the affected environment and reviewed the FMP issues that arise from rationalization. Potential modifications to the FMP and to State regulations were also identified. These issues are reflected in the draft outline. The next analytical team meeting will be April 15 to review the Council's range of alternatives and determine significance criteria for the direct, indirect, and cumulative effects assessments.

Organizational Structure of the EIS

The CEQ regulations that implement NEPA recommend a format for organizing an EIS (40 CFR 1502.10). Federal agencies are given the flexibility to modify the standard format to encourage good analysis and

provide for a clear presentation of the alternatives including the proposed action. A draft outline has been prepared for this EIS that encompasses all of the required elements for an EIS, but organizes the presentation of information, alternatives, and issues in a way that best meets the needs of this project. The draft outline is a work in progress and many sections and subsections are likely to change, be moved, or be added as the analysts prepare the draft EIS.

The draft outline also includes deadlines for completing sections. Some sections will be completed before others so that the document will be coherent. Also, some sections are not possible to complete until after the Council has chosen a preferred alternative. The proposed deadlines assume that the Council will choose a preferred alternative in June. With this schedule, a draft of the first three chapters must be finished by June, so that a draft of chapter 4 can be completed by August. The Council would then initially review the draft, perhaps in October, and decided to send the draft out for public review. Also, if Congress has not provided statutory authority before October, NMFS will consult with the Council on whether to release the draft for public review or wait for Congressional action before releasing the draft to the public. NMFS would then file the draft EIS with EPA and distribute it for public review. Public comment received by NMFS on the draft EIS would be summarized and responded to, to the extent possible, prior to the February 2003 Council meeting. This way, the Council would have the draft EIS and public comments when it takes final action to recommend a rationalization program. Any delays in Council or Congressional action will lengthen the time for preparation of the draft EIS. Alternatively, Congress may decide to enact the rationalization program as a statute, similar to their action for the AFA or the crab vessel buyback program. In this case, an EIS would still be required.

Draft Outline and Deadlines

Notes: 1) Due dates assume the Council will recommend a preferred alternative in June 2002 and that Congress will make the required statutory changes necessary for the Council to take final action on a rationalization program in February 2003. Following this schedule, a draft EIS will be ready for initial Council review in October 2002. 2) This outline may change as the EIS is written and in response to Council input and public comments.

Section		Due Date
Chapter 1 Purpose and Need for Action		**June 2002**
1.1	Introduction	
1.2	Action Area	
1.3	Purpose and Need for Action	
1.4	Public participation	
	1.4.1 Notice of Intent and Scoping	
	1.4.2 Public participation in development of rationalization	
1.5	Coordination with other agencies	
1.6	Issues to be addressed in the EIS	
1.7	Related NEPA Documents	
1.8	Relationship of this action to other federal laws and action	
Chapter 2 Alternatives		
2.1	Development of the Alternatives	**June 2002**
	2.1.1 How the alternatives are constructed	

2.2.2 Key policy issues and decision points in the development of the alternatives
2.2.3 NMFS and Council development of Alternatives

2.2 Alternative 1: Status Quo - FMP **April 2002**
2.2.1 Category 1 - Federal management measures fixed by the FMP
2.2.2 Category 2 - framework management measures (*What is in the FMP, what is in the State regs, and why*)
2.2.3 Category 3 - management measures deferred to State

2.3 Alternative 2: ??????????[1] **June 2002**
2.3.1 Description of alternative
2.3.2 Description of potential changes to FMP measures resulting from IFQ (*These are changes to FMP text required to implement the rationalization program*)

2.4 Alternative 3: ??????????
2.4.1 Description of alternative
2.4.2 Description of potential changes to FMP measures resulting from IFQ (*These are changes to FMP text required to implement the rationalization program*)

2.4 Alternative 3: No Fishing[2] **June 2002**

2.5 Comparison of the alternatives **June 2002**

2.6 Alternatives considered and rejected[3] **June 2002**
2.6.1 ????????
2.6.2 ?????????
2.6.3 ??????
2.6.4 ???????
2.6.5 ???????

2.7 Impact Assessment Methodology

Chapter 3 Affected Environment

3.1 BSAI Ecosystem **April 2002**

3.2 Crab Life History Approach (physical and biological environment) **April 2002**
3.2.1 Larval stage
3.2.2 Settlement stage
3.2.3 Juvenile stage
3.2.4 Adult stage
3.2.5 Spawning stage

3.3 Other Biological Resources **April 2002**
3.3.1 Benthic species caught as bycatch in the crab fishery
3.3.2 Benthic species impacted by pot gear
3.3.3 Marine mammals
3.3.4 Seabird
3.3.5 ESA listed species present in action area

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[1]Details of this alternative recommended by the Council.

[2]This is the default alternative for purposes of constructing the outline. The alternatives will be determined through public participation in the scoping process and input from the Council.

[3]These are also for discussion purposes and may change in response to public and Council input.

3.3.6 Environment in vicinity of crab processors

3.4 Features of the human environment **April 2002**

3.4.1 History of the BSAI crab fishery (*This section can be summarized from the ADF&G AMR*)

3.4.2 History of BSAI crab management

3.4.3 Profile/Description of the BSAI crab industry

3.4.4 Affected communities

3.4.5 CDQ groups

3.4.6 Other Fisheries in the BSAI

3.4.7 Other human activity

Chapter 4 Environmental and Economic Consequences of the Alternatives

4.1 Anticipated changes to BSAI crab fishing patterns resulting from the alternatives **July 2002**
(*This section can be largely summarized from the Council's economic analysis*)

4.1.1 Scenario 1: Status quo fishery (Alternative 1–No action)

4.1.2 Scenario 2: ????????

4.1.3 Scenario 3: ????????

4.1.4 Projected changes to fleet composition (*vessels, skippers, crew*)

4.1.5 Projected changes to processing practices (*shore-based, floaters, CPs*)

4.1.6 Projected changes to State management of BSAI crab fisheries

4.1.6.1 Fishing Seasons

4.1.6.2 Pot limits

4.1.6.3 Guideline Harvest Levels

4.1.6.4 In-season adjustments

4.1.6.5 Closed Waters

4.1.6.6 Reporting Requirements

4.1.6.7 Bycatch Limits

4.1.6.8 Other Measures

4.1.7 Projected change to Federal management of BSAI crab fisheries

4.1.8 Projected changes to other State and Federal fisheries [4]

4.1.9 Summary of expected changes in BSAI crab fishery

4.2 Predicted effects of the alternatives on the life history stages of crab **August 2002**

4.2.1 Effects of the alternatives on larval life stage

4.2.2 Effects of the alternatives on settlement stage

4.2.3 Effects of the alternatives on juvenile stage

4.2.4 Effects of the alternatives on adult stage

4.2.5 Effects of the alternatives on spawning stage

4.2.6 Cumulative Effects on crab life history

4.3 Predicted effects of the alternatives on other biological resources **August 2002**

4.3.1 Effects of the alternatives on benthic species caught as bycatch in the crab fisheries

4.3.2 Effects of the alternatives on benthic species impacted by pot gear

4.3.3 Effects of the alternatives on marine mammals *(non-ESA)*

4.3.4 Effects of the alternatives on seabirds *(non-ESA)*

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[4] Federal groundfish fisheries, jointly managed scallop fishery, and State managed snail, GOA crab, Pacific cod, and hair crab fisheries.

4.3.5 Effects of the alternatives on ESA listed species present in action area
4.3.6 Effects of crab processing on water quality and substrate
4.3.7 Other environmental consequences
4.3.8 Commutative effects on other biological resources

4.4 Essential Fish Habitat assessment **August 2002**

4.5 Predicted effects of the alternatives on the BSAI Ecosystem **August 2002**

4.6 Economic and socioeconomic effects of the alternatives *(This section can be largely summarized from the Council's economic analysis)* **August 2002**
4.6.1 Crab allocations and eligible participants
4.6.2 Economic structure under FMP - status quo
4.6.3 Economic structure under ??????
4.6.4 Economic structure under ???????
4.6.5 Effects of the alternatives on management and enforcement[5]
4.6.5 Effects of the alternatives on communities
4.6.7 Effects of alternatives on other State and Federal Fisheries
4.6.8 Effects of alternatives on CDQ groups
4.6.8 Commutative economic effects

4.7 Regulatory Impact Review (RIR) **July 2002**
4.7.1 Introduction
4.7.2 Benefit-Cost Analysis
4.7.3 Distributional impacts
4.7.4 Evaluation of significance

4.8 Initial Regulatory Flexibility Analysis (IRFA) **July 2002**
4.8.1 Statement of Problem
4.8.2 Objective Statement of Proposed Action and its Legal Basis
4.8.3 Description of each Action
4.8.4 Reasoning for, and focus of, an IRFA
4.8.5 Requirement to prepare an IRFA
4.8.6 What is a Small Entity?
4.8.7 Description of Fleet, Fishery, & Industry Directly and Reasonably Indirectly Impacted by Proposed Action
4.8.8 Discussion of the potential negative effects of alternatives on small entities
4.8.9 Mitigation of negative impacts
4.8.10 Recordkeeping and reporting requirements
4.8.11 Summary and conclusions

4.9 Environmental Justice Considerations **August 2002**

4.10 Energy Requirements and Conservation Potential of Alternatives **July 2002**

4.11 Cumulative Effects Assessment **August 2002**

4.12 Summary and Conclusions **August 2002**

Chapter 5: List of Preparers **July 2002**
5.1 EIS Steering Committee

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[5] Includes full discussion of recordkeeping, reporting, and catch accounting requirements of proposed programs.

5.2 Project leaders
5.3 Contributors
5.4 Consultant contributors

Chapter 6: List of Agencies, organizations, and persons to whom copies of the statement are sent

Chapter 7: Literature cited

Appendix 1: Council Analysis of BSAI Crab Rationalization Program Alternatives - Report to Congress

Appendix 2: Scoping process documentation (NOI, meeting records, summary of comments, issues identified for analysis)

Appendix 3: History of FMP (previous FMPs, approval dates, NEPA analysis, list of FMP amendments, list of regulatory actions)

Appendix 4: State crab regulations

Related NEPA Documents

This EIS is a standalone NEPA document that does not tier of any previous EISs because this is the first EIS prepared for the BSAI crab FMP. An environmental assessment/regulatory impact review (EA/RIR) was prepared for the current FMP in 1988. Environmental Assessments have been prepared for each of the subsequent 15 amendments to the FMP, including revising the FMP in 1998. These EAs will be incorporated into the EIS to fully explain status quo and the analyze the cumulative effects of status quo on the human environment.

This EIS will incorporate by reference information from other EISs produced by the NMFS Alaska Region, were applicable. For example, the Draft Programmatic Supplemental EIS for the groundfish FMPs provides a detailed discussion of the Bering Sea and Aleutian Islands physical environment and ecosystem; life history, habitat, and stock status of groundfish species; seabird life history, population biology, and foraging ecology; and marine mammal life history, population biology, and foraging ecology (NMFS 2001). Most likely, these sections will be summarized and incorporated by reference into the Chapter 3, Affected Environment.

page 1

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM ~~C-2 (a) Halibut Regs~~ C5 CRAB

PLEASE SIGN ON THE NEXT BLANK LINE.
LINES LEFT BLANK WILL BE DELETED.

	NAME	AFFILIATION
1.	Dr. Robert Halvorsen/Earl Comstock	CRAB Group
2.	DAVID HILLSTRAND	OWNER/OPERATER F/V TIMEBANDIT
3.	Jake Jacobsen	Alaska Marketing Assn.
4.	Coleman Anderson	Pavlof - owner/operater
5.	Linda Kozak	Kozak & Associates
6.	BETH STEWART	Aleutians East Borough
7.	Joe Sullivan	Mundt MacGregor
8.	RUSS MOORE	F/V NORTH PACIFIC - CRAB Group
9.	BARNEY OLSEN	SEA
10.	CHRIS HENKER	F/V owner Starlight Five
11.	John Gauer	North Pacific Crab Assn.
12.	JAMES MIZE	Blue North Fisheries
13.	Greg Baker	Westward Seafoods
14.	Terry Leitzell	Icicle Seafoods
15.	Gary Painter	F/V Trailblazer
16.	Tom Casey	~~AFCG~~
17.	Gorda Blue	
18.	Larry Cotter	APICDA
19.	Max Malavansky	City of St. George
20.	Bret Coburn	St. George Tanaq Corp.
21.	Paula Brogdon	Fishermen of Dutch (FOA)
22.	Tom Sunyan	SEA / AMA
23.	Dorothy Childers	AMCC
24.	Arni Thomson	ACC
25.	Jerry Larson	Royal Aleutian Seafoods

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM C 5 CRAB

page 2

PLEASE SIGN ON THE NEXT BLANK LINE.
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	NAME	AFFILIATION
1.	WALT CHRISTENSEN	SEA
2.	Margaret Hall	
3.	Tim Kennedy	
4.	Mark Maring	
5.	Bob Storrs	Unalaska Native Fishermen's Assoc.
6.	Leonard Herzog	
7.	Steve Minor	Saint Paul
8.	Pat Carlson	Kodiak Island Borough
9.	Frank Kelty	City of UNIAlaska
10.	DAVID LETHIN	Ba Mar Env.
11.	Gary Johnson	Peter Pan Seafoods
12.	~~David's~~	~~Trident Sea Foods~~
13.	Bing Henkel	F/V ERLA-N
14.	Stephen Hall	F/V Spirit of the North
15.	David Polushkin	Kachemak Bay Fisheries Assoc.
16.	JOHN ROTTER	F/V ALASKA DAWN
17.	JAMES MIZE	BLUE NORTH FISHERIES
18.	Todd Hinrick	SEA GIA
19.	Rick Shelford	ALEUTIAN LADY
20.	Jeff Stephan	UFMA
21.	Jane Benson	Trident
22.	Kevin Sygdan	Lady Alaska
23.	Dave Grimson	Muir Milach
24.	~~Bill Prout~~	F/V Nordic Viking
25.	Jerry Bongen	F/V Jeanoah

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM C-5 P. 3.

PLEASE SIGN ON THE NEXT BLANK LINE.
LINES LEFT BLANK WILL BE DELETED.

	NAME	AFFILIATION
X 1.	Buck LAUK ITIS	
X 2.	Charles King	
3.		
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Alaska Crab Coalition
3901 Leary Way N.W., Suite #6
Seattle, Washington 98107
206.547.7560
Fax 206.547.0130
acc-crabak@msn.com

DATE: March 18, 2002 **Reference: RC 16**

TO: Ed Dersham, Chairman Total pages: 5
Alaska Board of Fisheries

FROM: Arni Thomson, Executive Director

RE: COMMENT ON COMMITTEE A, PROPOSAL **425**
CLARIFICATION ON ACC PUBLIC COMMENTS, **RC 16**,
INCLUDING RAY HILBORN'S COMMENTS ON OPILIO HARVEST STRATEGY, APRIL 2, 2000

Following the Board of Fisheries approval of the Opilio Harvest Strategy in March of 2000, the ACC contracted Dr. Ray Hilborn to conduct a hasty review of the Magnuson – Stevens overfishing definition and the opilio harvest strategy and to make a presentation to the NPFMC Scientific and Statistical Committee for the April 10, 2000 NPFMC meeting.

MAGNUSON-STEVENS ACT OVERFISHING DEFINITION:
Mr. Hilborn's comments were attached to ACC's original comments on proposals, primarily to illustrate that most of the complexities and controversy surrounding the opilio harvest strategy are derived from the Magnuson-Stevens Act overfishing definition and the mandates and guidelines that agencies must adhere to in order to rebuild fisheries. The overfishing formula was developed primarily for finfish, and it is ill-suited as a guideline for management of king and tanner crabs. Mr. Hilborn notes some key differences between finfish harvest strategies and shellfish harvest strategies. Finfish fisheries are generally not sex selective, whereas king, tanner and dungeness crab fisheries are selective to males only. He notes in the opilio crab fishery, that it is specific to large male crabs and it has no effective fishing mortality on females. Following Mr. Hilborn's presentation, the NPFMC Scientific and Statistical Committee concurred with Mr. Hilborn on the associated problems with the overfishing definition and its lack of relevance to the opilio fishery and other fisheries. They also expressed concern that "the perception will be created that NPFMC and Board of Fisheries management practices led to the decline of certain NPFMC populations because NMFS determined they were "overfished", even though fishing had no demonstrable effect,..." (PNCIAC Minutes October 1, 2000, Advisory Committee #1).

Although Mr. Hilborn's comments about the overfishing definition were accurate, he made a number of factual errors in his specific comments about the 2000, opilio harvest strategy. Doug Pengilly, ADF&G, Kodiak filed comments with the NPFMC on Mr. Hilborns's comments, dated April 8, 2000 that are attached to this memorandum, that rebutted Mr. Hilborne.

REVISED HARVEST STRATEGY CHANGES:
ADF&G's revised 2002 opilio harvest strategy, which is a framework harvest strategy, now allows for adjusting thresholds and exploitation rates. The exploitation rate for new shell >4 inch males has been increased to 58%, and the 25% cap on the exploitation rate for old shell crabs has been removed. The new strategy has allowance for a variable harvest rate that can be adjusted as the fishery selectivity changes and it will enable a larger harvest of old shell crabs. In addition, ADF&G has now proposed to reduce the minimum threshold for a fishery opening from 25 million pounds, to 15 million pounds, provided the pot limits are reduced. Exploitation rate adjustments can be accomplished without further regulatory approval of the Board of Fisheries and the NPFMC. These are significant improvements over the 2000 harvest strategy.

PACIFIC NORTHWEST CRAB INDUSTRY ADVISORY COMMITTEE (PNCIAC):
Industry concerns and recommendations regarding the problems associated with the NMFS overfishing definition as it mandated a conservative harvest strategy have been a primary focus of the PNCIAC, under the chairmanship of Garry Loncon, since March 1, 2000. These concerns, including a recommendation to revise the old shell harvest rate, are summarized and restated in the PNCIAC minutes of October 1, 2000, (Advisory Committee Comments #1 for this meeting).

RECOMMENDATIONS:

- ADF&G has informed the ACC that the Crab Plan Team will soon be initiating a review of the current FMP "overfishing" and "overfished" threshold definitions for the BS/AI King and Tanner crab stocks. The ACC recommends the CPT initiate this review in the spring and summer of 2002.

- The NMFS at some point when the controversy over the overfishing definition became widespread in 2000, agreed to convene regional workshops to solicit further public input on possible modifications to the Magnuson-Stevens overfishing definition. That series of workshops never took place, however, the ACC strongly encourages the NMFS to initiate a series of workshops to coincide with the MSFCMA congressional amendment process to review the overfishing definition.

cc: James Balsiger, Regional Director, NMFS, AK Region
Chris Oliver, Executive Director, NPFMC

Comments on: "Comments on ... 'A rebuilding plan for the Bering Sea C. opilio stock', Dr. R. Hilborn, 2 April 2000"

Prepared by:
Douglas Pengilly
ADF&G, Kodiak
8 April 2000

Dr. Hilborn argues that fishery management guidelines established for finfish fisheries may not be optimum in application to crab fisheries. That argument may have merit because, unlike finfish fisheries, females are not typically harvested in crab fisheries and minimum size limits are established for male crabs that are typically greater than their size-at-maturity. In particular, Tanner crabs are also distinguished from finfish by such characteristics as skip sperm storage by females and (or possibly terminal) molting.

On the other hand, Dr. Hilborn's comments and conclusions on the eastern Bering Sea opilio fishery and the current status of the opilio stock are based either on errors or without any substantiating information at all. Additionally, Dr. Hilborn misrepresents the "word and intent" of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) relative to preventing overfishing and achieving optimum yield.

I've divided my comments on Dr. Hilborn's comments into "Errors" and "Unsubstantiated Comments", below.

Errors:

Sex-ratio graph (page 2)

- Graph on sex ratio is based on misreading of NMFS AFSC Processed Report 2000-01 Table 5 ("large" and "very large" males are mistakenly added together), so the ratios are wrong.
- Interpretation problems remain even if Table 5 had been read correctly:
  - Effects of survey catchability by size and geographic distribution?
  - Look at ratio based on maturity status rather than size? Gives a different picture than ratios based on size.
  - Should shell age be factored in? What would be the most meaningful ratio?

"Any overfishing definition based on sex ratio would assure that the long term ability of the stock to produce MSY would not be hindered" (page 4)

- Stock size should always remain at least part of the consideration of a crab stock's status relative to the risks of fishing (even if the hypothesized minimum sex ratio can be established).

"The word of the law (i.e., the MSA) and the intent is to manage fisheries to produce MSY" (page 5)

- Statement is absolutely and unambiguously false.
  - The "word of the law" (National Standard 1 of the MSA, Section 301) is:
    "Conservation and management measures ***shall prevent overfishing*** while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing Industry" (bold italics mine).
    - "optimum yield" is defined in the MSA **to be less than** MSY
      "The term 'optimum,' with respect to the yield from a fishery, means the amount of fish which... is prescribed as such on the basis of maximum sustainable yield from the fishery, ***as reduced by any relevant economic, social, or ecological factors.***" (Section 104-297 28; bold italics mine)
- This misunderstanding carries into statements on page 2 (second paragraph) and page 3 (ast paragraph in sectiop headed "Analysis"), which erroneously assume that the goals of a harvest strategy under the MSA is to maximize yield.

Unsubstantiated statements:

"...fertilization has not been affected by directed fishing on males..(page 2)"

- This is a conjecture, based on no data, and is presented as fact.
  - Conjecture is hypothesized from misreading of sex-ratio information (above)

"...quite **simply there is no impact from the fishery on the long term yield of opilio"** (page 2; bold are Hilborn's).

- Statement is based upon nothing more than the above unsubstantiated statement.

"To maximize the biological yield from this stock, you would simply maximize the yield-per-recruit of males, which is done by the size limit combined with a 58% exploitation rate" (Page 2)

- Is this statement based on a review of the work and assumptions leading to the 58% exploitation rate and the 4-inch industry minimum size?

"Nothing in the current status of this fishery suggests that the fishery has affected the capacity of the fishery to produce MSY" (page 3).

- Statement is apparently based on no information other than the (earlier noted) misreading of a table in a stock status report. Dr. Hilborn has not demonstrated that he possesses the familiarity with this stock to justify making such a statement.

"The yield in this fishery is being driven by environmental factors affecting recruitment" (Page 3).

- Which factors and how?

"Clearly...the fishery has not 'jeopardized the capacity of a fishery to produce maximum sustainable yield on a continuing basis" (Page 4)

- If the data to back up this statement was available it should have been provided (and the arm-waving use of "clearly" would not be necessary here).

Dear Chairman Benton:

My name is Maria Painter. I live in Kodiak Alaska. I am 50% owner in a Bering Sea crab boat. Alaska fisheries are my families' single source of income. I am writing you this letter because I need your help.

Foreign owned canneries will soon own most of the Alaska fisheries in federal waters; and the small entities (our crab boat operations), are rapidly become a thing of the past.

The foreign owned canneries have accumulated their own fleet of fishing vessels. They can catch the crab quotas on their own. They have no need to be competitive with price, if the small entities decline a price; the canneries fish it themselves. It leaves the crab boat owners with no negotiating power and little hope for the future.

The American Fisheries Act is another thorn. Because of the AFA most of the Bering sea canneries have caps on the amount of crab they can buy per season; but there are a few canneries that have unlimited purchasing rights. With this arrangement, the canneries with unlimited purchase power set the price how they see fit.

Is this an Anti-Trust issue?
Is this a form of price fixing?
What can we do?

Unless these problems are addressed, the small entities that are dependent on the crab fisheries will be destroyed.

The solution: No cannery owned fishing vessels
No caps on canneries

Please help us!

Your response would be greatly appreciated.

Respectfully,

Maria E. Painter
P.O. Box 3137
Kodiak, AK 99615
907-486-2639

F/V BIG BLUE, INC.
Rick Turvey, Owner/Skipper
P.O. Box 161
Kodiak, Alaska 99615

March 21, 2002

Senator Ted Stevens
Washington, D.C.

Dear Senator Stevens,

The purpose of this letter is to express concern regarding the crab rationalization proposal at the North Pacific Fishery Management Council and in Washington, D.C., to issue processor shares that would guarantee processors a delivery; processor shares that would require a match with most or all of a fisherman's IFQ.

Processor shares do not make sense if the goal is to provide a competitive market for the independent harvesters, the commercial fishermen. If processors are given a delivery guarantee, without competition, it will be like going back before statehood, when the processors from Seattle controlled the seafood industry and Alaskan residents couldn't find jobs in the fishing industry. Senator, this is our livelihood we are talking about, our ability to support our families and our communities. Processor shares will rob us of this ability. The ex-vessel price for fish will go down, as the processors will have NO incentive to be competitive if they are guaranteed product. Without a competitive price to fishermen, crewmembers and communities will suffer.

Senator, please consider that most crab processors who want guaranteed deliveries are part of the American Fisheries Act (AFA) program and highly diversified, with little or no dependence on crab, while most crabbers have no other real source of fisheries income. In addition, most crabbers are losing money fishing, but the processors are still making their margin. The benefits from the crab fishery are now being retained by the processors. This is not equitable and if the goal of this proposal is to try to maintain the status quo in pricing, the result will be that the independent vessel owners go under.

I would like to close with one final point: I don't believe this will be limited to the crab fishery. If the processors have delivery guarantees in one fishery, they will want them in everything, including salmon. That will be the end of Alaska's independent fishermen. Thank you for your time and consideration.

Sincerely,

Rick Turvey

Cc: Senator Frank Murkowski
Senate Commerce Fisheries Subcommittee
House Fisheries Subcommittee
Dave Benton, Chair NPFMC

Alan A. Lauritzen
P.O. Box 191
Sand Point AK 99661

March 19, 2002

Dear NPFMC Board members,

I am writing to you to express my opinions on the CRP Crab. I'm 44 years old and have been fishing out of Sand Point since I was 10 years old. My father was born and raised just outside of Sand Point in Unga. I live in Sand Point now but do not spend much time there. Fishing is all I've done. In 1977 I graduated from high school and went right to the Bering Sea crab fishing. I did crab with my father before that between Salmon and school. For the last 14 years I've operated two boats, the F/V Bering Star from 1988-1994 and from 1994 until now the F/V Ocean Fury. Although I'm in good standings with the owners of the Ocean Fury it does not guarantee my future with them. If (CRP) goes the way the AFA boats went, then a lot of us skippers including myself will be looking for other professions. We need to be protected. I am a member of the S.E.A. and would like to see their proposals enacted to insure my longevity in the fishing industry. I've talked to a lot of people who are following this pretty close, and many things do not sound good. Quotas being piled up on top of each other. The corporations with the most money will win big time. I have hope the processors will not succeed they will get the crab either way. They just want to insure a very high profit range for themselves with little negotiating power from the fleet. I hope you can sort it out. Most things do not come out fair for the little guys. I guess we can always hope though. There are a lot of long time skippers (prior deck hands) in my position right now. I have a great safety record, probably because I came from the deck. I care about the people that work for me. I spent enough years on deck myself. A lot of the people I worked for did not care, I've seen the results. Some of the injuries can't be helped no matter what you do. Shit happens. Most injuries can be prevented. It comes from experience and when to say we are going to jog boys. I have a certain values in this fishery now, my ability to catch crab and keep my crew safe. That will be all out the window for the most part if my fellow skippers and me are left out. I've spent a lot of time in the Bering Sea to get where I am at, and there have been sacrifices. Mainly being away from family and little life outside of fishing. I have no regrets. I'm asking you to not drop us from the equation. Let us have a piece of the pie. I would testify in person but finances prohibit me. I'll let S.E.A. speak for me.

Sincerely,

Alan A. Lauritzen

ROBERT TRUMBLE
F/V DENALI

P.O.Box 238
King Cove,Ak. 99612 Phone (907) 497-2392 Fax (907) 497-3118

March 27, 2002

Mr. David Benton
North Pacific Fishery Management Council
605 West 4th Avenue,Ste.306
Anchorage, Ak. 99501-2252

Dear Mr. Benton

This letter is pertaining to the options for distributing Bairdi quota shares to catcher boats in the BSAI crab rationalization plan. I have been involved in the BSAI crab fisheries since 1977. I personally worked on crab decks for 11 years prior to operating the Denali in 1988. In 1991 I joined a partnership in the boat. We targeted Bairdi while most of the fleet went after Opilio. We have already given up a lot of our Opilio catch history by targeting Bairdi during those qualifying years, and now there is a chance we will be sharing our Bairdi catch histories with the rest of the fleet. Where is the fairness in this option?

As I understand this rationalization, catch histories are what determines who goes where, so lets stick with the issues at hand here and allocate quota shares to boats who created those catch histories, only.

In the preliminary rationalization draft, in NMFMC own words ; It is a time to stem the flow of additional unneeded vessels into the fisheries, to address existing and emerging problems resulting from an overcapitalized fishery.

I am all for rationalizing this fishery, I've wrote to you on previous occasion stating the fact. I am also all for the quota share program and the fact that catch histories are the avenue of choice, so let the catch histories speak for themselves and qualify those who belong.

Sec.1.4.2.3. Bairdi (EBS tanner crab),

Option 3; Based on a 50/50 combination of Bristol Bay red king crab and opilio harvests.

.....Doesn't take into consideration the catch histories that were made during the qualifying year options.

.....Gives Bairdi allocations to vessels without much if any Bairdi catch history.

..... Bases allocations on a much broader base than needed.

Thank you for taking time to read and consider this letter.

Sincerely

Robert Trumble

ROBERT TRUMBLE

David Hillstrand
Box 1500
Homer, AK 99603

North Pacific Fisheries Management Council.
Item: C-5

Of all the issues concerning rationalization of the Crab fisheries, the Qualifying period is our highest concern; the second would be job losses from transferability.

The NPFMC has been progressing along with a process, this process is to create a stable fisheries.

a. The first was the Moratorium on vessels entering the fishery. 1988-1992
b. The second was the LLP endorsements from 1992-1995
c. The third was the recency requirement on one landing from 1995-1997

We encourage the Council to use the most current years. With all years considered protecting those dependent upon the fishery.

Opilio
Option 4. 1996 – 2000 (5 seasons)
(a) Best 4 seasons

Bristol Bay Red King crab
Option 3. 1996 – 2000 (5 seasons)
(a.) Best of 4 seasons

Baridi
Option 1. 1992-1996 (5 seasons)
(a) Best 4 seasons
We would consider the option of ones percentage of Opilio, and Bristol Bay Red King crab to determine ones Baridi catch.

St. Matthews

Option 2. 1994-1998
(a) Drop one season

Pribilofs Red & Blue

Option 2. 1994-1998
(a) Drop one season

We encourage the biological split in the Quota between the Red and Blue crab.

a. We recommend that the Red and Blue catch be determined off of ones overall catch of the quota. Than that percentage applied to the population estimate of each species.
b. Historically the catch was mostly blue crab; between 2-6 million pounds. With 11 million being the highest.
c. Current catches which will determine a catch history are mostly split between the species, with some years being better for reds and others blue.
d. If ones catch history for the last six years of the fishery; 1993-1998 was mostly Red king crab, their catch of the overall harvest when the fisheries changes back to a Blue king crab harvest would be nonexistent. The same could be true if the red king crab biomass continues to grow as well.
e. By allowing ones overall catch to determine their history the ADFG can determine the percentage of the population estimate of each species each year and apply the percentage for each species. This will reduce bycatch as well.
f. This will not cause hardship or a loss to a fishery that one has participated in each year.

We would also like to request the State of Alaska to include the Korean Hair crab fisheries with the NPFMC rationalization of the crab fisheries.

We highly recommend that the NPFMC apply a consistent time period with a high participation requirement for all fisheries! These options do. We recommend all others be dropped.

Transfer/Leasing

We highly recommend that the NPFMC limit transfers, sales and leasing to preserve jobs.

1. Allow sale of catch history.
   a. No owner can purchase or lease another vessel if they own interest in more than one vessel.
   b. Owners that own only one vessel can purchase or lease another vessel or its shares if it does not exceed the cap set by the NPFMC.
2. Are largest concern is to not to allow too much consolidation.
   a. Owners that have 2 or more vessels should not be allowed to lease additional shares.
   b. We recommend only 2 vessels for consolidation for leasing. From a fleet of 250 to 125 vessels is a dramatic reduction in crew and jobs.

Excessive Share Caps

1. 1% For King crab red, blue and Baridi.
2. 3% to 5% for Brown king crab.
3. 1% for Opilio.

4. Grandfather provisions if one exceeds the excessive share cap in the original endorsement.
5. This will determine if an owner can purchase more shares; remember caps apply for a single vessel owner or an owner with more than one vessel to see if they are allowed to consolidate two vessels. Again please watch for owners accruing a large monopoly.

1. **We also would like for the NPFMC to consider IFQ for vessels that are owner operated without any ties to processors or communities. We will gladly supply ownership data for the NPFMC if they include this option.**

2. **We would like the NPFMC to consider AFA sideboards for Pacific Cod for all pot vessels that qualify for crab shares. This will cap their catch at current levels.**

    A. **Alaska Groundfish Data Bank has come up with what we consider a fair option; using the same qualifying period and years applied to determine ones catch.**

3. We would also like the NPFMC to add another recency requirement of one landing of crab in 2001.

David Hillstrand

David Hillstrand

Kaldestad Management LLC

Mariner Boats

5470 Shilshole Ave. N.W. #410 • Seattle, WA 98107 • (206) 783-3018 FAX (206) 783-3145

Date: January 29, 2002

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

Re: C-5 Crab Rationalization, Options for Skippers and Crew

Dear Council Members,

One of the elements and options of Crab Rationalization is the treatment of skippers and crew under a new program. I believe there is general consensus in the crab industry that there should be consideration of skippers and crew in the new quota-based system. The Council must decide which method would best achieve this goal.

Under an Olympic style fishery, skippers and crew are valued for their ability to catch crab efficiently, effectively and safely. In a quota based fishery, the same qualities will be sought in skippers and crew by vessel owners for their operation. There is a concern among some that skippers and crew will underbid each other in the competition for jobs. It is assumed that today the crab fleet is overcapitalized, that there are too many vessels in the crab fishery and consolidation is needed. One of the early steps being considered is a fleet sponsored buyback. After consolidation under a buyback and rationalization, there will, by necessity, be fewer jobs in the crab fishery assuming each vessel had a distinct crew. However, the remaining jobs will be more stable financially and may in fact be filled by more that one person in a crab season, assuming crab stocks can rebound. As in any fishery, the best skippers and crew will be sought by vessel owners for these jobs and will be compensated as such.

The best and fairest way to include skippers and crew, and to allow an avenue for new entrants in a rationalization program, is to set up a first Right of Refusal Program based on quota sales, funded by a Low Interest Loan Program and a pre-tax savings account which can be used for quota purchases (similar to CCF program used to purchase vessels). These would provide the opportunity to purchase quota and the ability to access capital for purchases. This approach, I believe, would have wide support from vessel owners.

Another option is for skippers and crew is for them to receive initial allocation of quota share. This option is unfair to vessel owners who have taken the financial and emotional risk associated with ownership of a vessel. The quota associated with a vessel under a new quota program is a transfer of value from that vessel to the quota. This has been shown in the halibut and sablefish program where vessels are worth a fraction of what they were under Olympic fisheries. The quota will be the cream of that value. The vessel owner will

be left with all the negative things associated with vessel including operational costs, legal requirements, crew injuries, etc. while non-owner recipients would receive a portion of the most valuable portion of the overall operation, the quota. Vessel owners who have made the financial and emotional investments in vessels should be the recipients of quota, not skippers and crew who have not. Crewmembers have benefited financially from the owners investment in the fishery (skippers as much as 3 times as crew) and some have chosen to participate as owners while other have chosen not to invest in the crab fishery with their earnings. Some have invested in other fisheries such as salmon and halibut. The ones who have become investors will be awarded quota as a result of their investment.

I would urge the Council to move forward with First Right of Refusal and Low Interest Loans as the preferred option for skippers and crewmembers.

Sincerely,

Kevin L Kaldestad

Kevin L. Kaldestad

March 28, 2002

Mr. David Benton, chairman
Mr. Chris Oliver, Executive Director
North Pacific Management Council
605 West Fourth Avenue, Suite 306
Anchorage, AK. 99501-2252

Gentlemen,.

I am writing to you in regard to Option 3 pertaining to the Bairdi fishery as stated on page 157 of the BSAI Crab Rationalization Program Alternatives 1.4.23. dated January 22, 2002. I think it should be disqualified for the following reasons:

1. I targeted Bairdi tanner crab for most of the qualifying years. I have no catch history for most of the Opilio tanner qualifying years. This is a severe penalty on Bairdi fishermen.
2. For this legislation to be rational you must qualify for the fishery to start with. I don't see how you can give quota shares to a boat that doesn't have catch history in the fishery?

3. If you use Option 3, use a bairdi/opilio seasonal quota ratio to make it fair for the bairdi fishermen.

Gentlemen please allow all boats participating in future crab fisheries in the state of Alaska, enter thereon their past catch histories.

Thanks for your time

Captain Leslie G. DeLong
F/V Gayla Maureen

Leslie DeLong
P.O. Box 162
King Cove AK 99612

The *C. Bairdi* Fishery.

The Council motion includes the following qualifying year options for the distribution of QS in the Bering Sea *C. bairdi* fishery:

1.4.2.3 Bairdi (EBS tanner crab)
Option 1. 1992 - 1996 (5 seasons)
(a) All seasons
(b) Best 4 seasons
Option 2. 91/92* - 1996 (6 seasons)
(a) Best 5 seasons
Option 3. Based on a 50/50 combinatino of Bristol Bay red king crab and opilio harvests
*The biological season extended over a calendar year

Option 3 would base the allocation on the allocations in the Bristol Bay red king crab and the *C. opilio* fisheries, weighting each of those allocations equally for purposes of determining the allocation in the *C. bairdi* fishery.

Table 3.3-7 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Bering Sea *C. bairdi* fishery . Figure 3.3-4 is a graph of the distribution in the fishery under the different options. As in the *C. opilio* and the Bristol Bay red king crab fisheries, the allocations are quite similar. Although the graph appears flatter than the graphs from the other fisheries, that is largely an artifact of the scale of the graph. The shape of the curve and the average of the four largest allocations is approximately the same as in the other fisheries. The average allocation to the four vessels receiving the largest allocations under all of the options is slightly more than one percent of the total allocation in the fishery, while the median (midpoint) and mean (average) allocations are slightly less than one-half of one percent. Under that Option 2A, one more vessel (269 vessels) is included in the initial allocation than under the other two options. All reported descriptive statistics are approximately the same under the options.

Table 3.3-7 Mean, median, and average of the four largest allocations under the different qualifying year options in the Bering Sea *C. bairdi* fishery

Fishery	Mean	Median	Average of four largest allocations
Bering Sea Bairdi (EBS Tanner Crab)			
Option 1A-1992 - 1996 (All seasons)	0.004	0.004	0.011
Option 1B - 1992 - 1996 (Best of 4 seasons)	0.004	0.004	0.011
Option 2A -1991-1992 - 1996 (Best of 5 seasons)	0.004	0.004	0.011

Aleutian Pribilof Island Community Development Association

□ 234 Gold St. • Juneau, Alaska 99801 • (907) 586-0161 • 1-888-9APICDA • Fax (907) 586-0165

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March 29, 2002

Mr. David Benton, Chairman
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, Alaska 99501-2252

Re: Crab Rationalization

Dear Chairman Benton:

There is no question that the crab industry is in desperate need of some form of rationalization. Any crab processing company, crab harvesting vessel, or community dependent upon crab is acutely aware of the problems facing the industry. Although there are a myriad of proposals to address rationalization, of particular concern to APICDA and our member communities are those proposals that could eliminate our present and/or future participation in the crab industry.

Three of APICDA's member communities either participate in the crab processing industry or are preparing to participate in the crab processing industry: St. George, False Pass, and Atka.

For a number of years, St. George has been the home for one or two floating crab processors. This has provided sorely needed tax revenue and employment opportunities for the island. This year, no processors operated in St. George due to the low GHL. The financial impact upon the community has been devastating. The community is scared to death that under one or more of the rationalization alternatives being considered by the Council, there may never be crab processing in St. George again.

Neither False Pass nor Atka have ever processed crab, although both plan to in the relatively near future. In both communities, APICDA has made significant investments in shoreside processing operations (Bering Pacific Seafoods in False Pass and Atka Pride Seafoods in Atka). Construction of a boat harbor in False Pass is expected to begin in 2003. We have also initiated the process for construction of a boat harbor in Atka.

St. George, False Pass and Atka are viable crab processing communities. APICDA's plans, commensurate with the desires of the three communities, is to construct a shoreside processing facility in St. George (capable of processing crab, cod, halibut and

other species) and expand the processing capabilities of both the False Pass and Atka plants to crab. This would strengthen the economies of all three communities and help provide a viable future for their residents. That is the purpose of the CDQ program.

As mentioned above, we are concerned that some of the rationalization proposals before the Council could eliminate our community's present and/or future participation in the crab industry. Any of the proposed rationalization requirements that identify or limit in any way future participation in the crab industry to current participants serves to eliminate the development of shoreside crab processing operations in these communities. For example, adoption of processor quota shares would make it virtually impossible for us to participate in the industry, since we will not be able to afford to purchase any quota shares that go on the market. The proposed open access set asides will not alleviate this situation since we will not be able to compete for product against companies that are guaranteed product.

One might argue that CDQ crab should be allocated to address these needs. The fact is that there is not enough CDQ crab in total to meet the needs of a shoreside processing facility, much less if the CDQ quota is divided among the six CDQ groups.

It is extraordinary difficult for the residents of these communities to understand why their community cannot directly participate in the crab processing sector when they have finally reached — or will soon reach — the capability to construct the shoreside facilities to participate. In False Pass, for example, dozens of crab vessels transit False Pass to and from the Bering Sea to participate in the fishery. Under some of the rationalization proposals, they will be allowed to sell crab in various Gulf of Alaska ports, such as King Cove, Sand Point, and Kodiak, but only after sailing past False Pass which will finally have a boat harbor and processing facility capable of handling crab.

We are very sensitive to the debate over processor quota shares, regionalization, co-ops, ITQs, etc., and the needs of the industry. We are also supportive of rationalization because it is necessary. Therefore, we propose and request the Council include a provision in the rationalization package that provides some measure of protection to CDQ communities that currently do not have a shoreside crab processing facility. Our proposal reads:

> Any limitation of future crab processing entities, whether as a result of crab processor quota shares, the formation of cooperatives, or some other limitation, shall not apply to a CDQ community that does not have a shoreside crab processing facility, providing the crab processing facility constructed is owned at least fifty percent by the CDQ group representing that community.

We believe this is a fair and reasonable proposal. Realistically, we expect this to apply only to three communities (St. George, False Pass and Atka) since weather, geography and other considerations (including current operating shoreside crab processing facilities) effectively preclude their participation in this proposal. The proposal would also alleviate any conflict between the purpose of the CDQ program and crab rationalization. In APICDA's case, we have already invested millions of dollars in infrastructure and facilities in each of these communities. From the beginning, our intent has included crab production as a necessary means to utilize the resources available to the community, diversify our operations, and develop stable local economies.

Thank you for your consideration.

Sincerely,

Gilda M. Shellikoff

Gilda Shellikoff, Chair
APICDA Board of Directors

cc: APICDA Board of Directors
City of St. George
City of False Pass
City of Atka
Council Members

FANNING FISHERIES

164 Pelican Way, Friday Harbor, Washington 98250
Phone 360 378 2821 ~ Fax 360 378 2830
F/V Denali ~ F/V Entrance Point ~ F/V McKinley ~ F/V Gayla Maureen

March 26, 2001

Mr. David Benton, Chairman
Mr. Chris Oliver, Executive Director
North Pacific Fishery Management Council
605 West Fourth Avenue, Suite 306
Anchorage, AK 99501-2252

Gentlemen,

I am writing with regard to Option 3 pertaining to the Bairdi fishery as stated on page 157 of the BSAI Crab Rationalization Program Alternatives, 1.4.2.3, dated January 22, 2002. Option 3 should be deleted for the following reasons:

1. Boats that specifically targeted Bairdi consequently acquired very little Opilio history and the boats that targeted Opilio acquired very little Bairdi history. Everyone targeted their favored fishery by choice. This option allows the Bairdi fishermen to be put out of business because their fishery would be misappropriated to boats that never fished it.

2. This option to allocate Bairdi to boats that fished Opilio makes no more sense than an option to allocate Opilio to boats that fished Bairdi, which is NOT an option. Bairdi fishermen would certainly like to be awarded Opilio by their Bairdi history, but that is not fair.

3. This option could allow the concept of allocating brown crab to some other group that never fished it nor depended on it. Should this happen ? NO. Should this happen to Bairdi ? NO. Should this happen to Opilio ? NO.

Let the fisheries' history dictate who receives what quota based on who fished that quota and has subsequently depended on it. Please do not allow the Bairdi fishermen to be put out of business. Delete Option 3.

Sincerely,

FANNING FISHERIES, INC.

Kris L. Fanning, President

To: North Pacific Fisheries Management Council

From: Randy Walton F/V Snug Harbor

Reference To: Including Skippers in any BSAI Crab I.F.Q. Program

In the past I have expressed my concerns to the council about why the skippers need to be included in any B.S.A.I. crab I.F.Q. system that is to put into place and would like to express them again.

The skipper is the one person that keeps these vessels going, he hires new crew members and see to the training of them (which is getting to be more and more frequent) due to small quotes and small prices for product. He see to the safety equipment and makes sure it's up to Coast Guard specks and trains the crew on how to use it. He makes sure these vessel are maintained and in working order so they do not have brake downs in the middle of these short seasons.
The skippers job is 24 hours a day, 7 days a week once he steps foot onboard through to the end of a season or until the vessel is back in port. As a skipper I purchase all the Iterm Use Permit Cards that are required before the vessel can participate in any given crab fishery, these cards then produce the catch history (fish tickets) that is going to be used in determining any I.F.Q.s to be issued.
The skipper is the one that is liable for any fines, tickets, or any fee's to be paid to the State of Alaska for any small crab that might be delivered, any pots that might be rigged wrong, any pots that do not have the right pot tag or any tag on them at all.
A skippers job is more than just driving the bus from point A to point B. It is his knowledge and skill that produces a catch history, and keeps the crew safe in bad whether during these fisheries.
The most important fact for skippers to be included is to keep a NEXT GENERATION in the fisheries itself. If we are not included, are chances will be severely jeopardized.

Sincerely,

Randy Walton
F/V Snug Harbor

Alaska Marketing Association

To: Mr. Mark Fina

North Pacific Fishery Management Council

1 April 2002

Mark,

Please include the enclosed options regarding the funding of binding arbitration in the items to be considered by the AP and the Council.

Thanks,
Jake Jacobsen, Manager, Alaska Marketing Association

4917 Leary Ave NW Seattle WA 98107 Phone (206) 784-8948 Fax (206) 784-9813 ama@foxinternet.net

Options for Funding Binding Arbitration
Per Initial Council Review Draft, Section 3.7 Binding Arbitration

Original Language:

4. Each party shall be responsible for its own costs incurred in connection with the arbitration, and the parties agree to pay the arbitrator's fee in equal shares. Notwithstanding the foregoing, should any party fail to participate in arbitration in good faith or fail to perform in accordance with the arbitral award, then the other party shall be entitled to an award of costs, arbitration fees and attorneys fees incurred as a result of the first party's failure to participate or to perform, including any such costs and fees incurred in enforcing the arbitral award.

New Options:

1. Retain original draft language as noted above.
2. Retain original draft language as noted above with the inclusion of the italicized language: Each party shall be responsible for its own costs incurred in connection with the arbitration, and the parties agree to pay the arbitrator's fee in equal shares. *Each party shall pay the arbitrator's fee in advance; failure to pay the fee shall result in the party that failed to pay losing the arbitration.* Notwithstanding the foregoing, *and in addition to it*, should any party fail to participate in arbitration in good faith or fail to perform in accordance with the arbitral award, then the other party shall be entitled to an award of costs, arbitration fees and attorneys fees incurred as a result of the first party's failure to participate or to perform, including any such costs and fees incurred in enforcing the arbitral award.
3. Costs of arbitration and market research is to be funded by one-quarter of one percent of the raw fish tax collected from fisheries subject to the rationalization plan distributed equally to an arbitration fund and to the harvesters legally constituted collective bargaining association. The arbitration trust fund will only be used to pay the arbitrator's fee. Processors and the collective bargaining association will hold the fund jointly, and removal of funds must be authorized by signatories of each party. Should any party fail to participate in arbitration in good faith or fail to perform in accordance with the arbitral award, then the other party shall be entitled to an award of costs and attorneys fees incurred as a result of the other party's failure to participate or to perform, including any such costs and fees incurred in enforcing the arbitral award.

   Option 3A: The raw fish tax remains the same. One quarter of one percent is allocated from the existing tax.

   Option 3B: Increase raw fish tax one quarter of one percent.

   Option 3C: The arbitration trust fund may be funded to a maximum of $400,000.00 or ( ). Any monies collected in excess of

that amount will be distributed to a separate trust for families of fishermen lost at sea administered by the Alaska Marketing Association.

4. Additional language in options 1 or 2 defining "party" as a processor (or group of processors) or a legally constituted collective bargaining association. Membership in a legally constituted collective bargaining association is mandatory for harvesters to participate in the fishery.

Comments:
A "best offer" binding arbitration process in the event of failed price negotiation is a necessary part of crab fishery rationalization. It will establish a mechanism to ensure a timely start of fishing, equitable price levels for processors and fishermen and bring much needed stability to the fishery and marketplace. Funding of market research by harvesters and the arbitration process is an essential part of rationalization.

The Alaska Marketing Association was established in 1981 as the collective bargaining association for the Bering Sea/Aleutian Island crab fleet. The association has been effective, particularly since 1994, in bringing millions of extra dollars into the fishing fleet and into the State of Alaska. For example, Prior to the last opilio season, we received a serious "best and final" initial offer from a processor of $1.00/lb. Through negotiation, we eventually were paid $1.40/lb., increasing the value of the catch by .40 and thereby increasing the tax collected by the state by approximately $360,000.00. In some years with larger opilio quotas, we have increased the value of the catch by as much as 50 million dollars, increasing the revenues to the state by over $1,500,000.00.

The State of Alaska has a vested interest in insuring a fair and equitable price for fishermen. It can well afford the tiny investment of one-quarter of one percent of the raw fish tax collected from rationalized crab fisheries to fund collective bargaining and binding arbitration. Depriving fishermen of recourse to arbitration in the event of failed negotiation would result in substantial losses to the state.

Throughout the history of the Alaska Marketing Association, there have been harvesters who have neglected their responsibility to the association and have been content to ride the coattails of the majority of the fleet. Several vessels have even fished while the rest of the fleet remained in port until a price was settled. Option 3 will most effectively distribute the cost of collective bargaining and arbitration between all participants and beneficiaries.

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April 1, 2002

Mr. David Benton
Chairman
North Pacific Fishery Management Council
Suite 306, 605 West Fourth Avenue
Anchorage, Alaska 99501-2252

Via Facsimile & U.S .Mail
271-2817

Re: Crab Rationalization

Dear Chairman Benton:

This letter is in regard to rationalization in the Brown Crab fishery.

As you may remember, I represent Kevin Suydam, an Alaskan fisherman in the Brown Crab fishery. I will not recount the circumstances of his particular situation, as I have done so in a previous letter to you. However, I do want to highlight again for you our particular concerns.

First and foremost, it is important for the Council to understand the uniqueness of the Brown Crab fishery. It is unlike the other fisheries, in that there are a limited number of participants, and until the year 2000 the Brown Crab fishery had not been fully harvested. In fact, it is telling that in the Initial Review Draft, dated in March 2002, the answer to the three questions posed in considering rationalization of a fishery are a resounding "no" for the Brown Crab fishery. *See* Initial Review Draft, March 2002, pg. 137. The questions are as follows:

> 1) Is there documented overcapitalization in the harvesting and/or processing sector as a result of this fishery? 2) Is the participation level high enough to generate a race for fish under shorter and shorter seasons? 3) Are there outstanding biological or management concerns such as overfishing, bycatch, etc.?

This is a fishery in which rationalization is not merited. However, if the Council chooses to go forward and rationalize this fishery, it is imperative that consideration be given to all participants in the fishery, so that there is a fair and equitable outcome in this unique fishery. Below are some concerns we feel must be addressed by this Council in order to ensure a fair outcome.

Specifically, Mr. Suydam is concerned that the catch history (1996-2000) currently being considered is in violation of National Standard 1 and 4 of the Magnuson-Stevens Act. 16 USC § 1851(a)(1) and (4). Recent testimony by William Hogarth, the Assistant Administrator for Fisheries in the NOAA, before the House Subcommittee on Fisheries Conservation, Wildlife and Oceans, re-enforces the importance of following National Standards 1 and 4. We were pleased to see that although Mr. Suydam's specific situation was not resolved during the Council meeting in February, the Council did address our concerns about excessive shares in adding a suboption to 1.6.3(d). However, after looking at staff comments and research on this particular suboption, I think it is safe to say that with all the confidentiality requirements in the fishery, the suboption was unable to accurately address the issue of excessive shares. Therefore, our concerns regarding that issue still stand.

Furthermore, our concerns that the current options being considered almost inevitably exclude those who entered the fishery before full-utilization remain. This concern relates directly to National Standard 1, which states that "[c]onservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry." 16 USC § 1851(a)(1).

Finally, as brought up in Mr. Suydam's testimony at the last meeting, we continue to press the Council to consider recency in determining appropriate options. In the Initial Council Review Draft dated January 2002, the staff included the following comments on the use of recent catch history in determining quota share allocations:

> In defining qualification criteria for allocating quota shares, consideration should be given to present participants up through the date of the Council's final action. NOAA GC notes that the potential for an IFQ program to grant quota shares to persons no longer participating in the fisheries was a pivotal issue in the lawsuit concerning the halibut and sablefish IFQ program. The use of "stale" qualification criteria has the potential to award QS to persons no longer in the fishery and **fails to consider the present participation of relatively new entrants;** the court in the IFQ litigation was very critical of the halibut and sablefish IFQ program on both counts.

Initial Council Review Draft, January 2002, page 33 (emphasis added). The current options proposed in the Brown Crab fishery ignore NOAA General Counsel's words of warning. We understand the Council's concerns that there would be a rush in the fishery if one of the options included final action. However, as I am sure you know, the Brown Crab season is over, and therefore any concerns of there being a rush by including catch

history up until the 2001-2002 season are without merit. In addition, it is unclear at this point whether final action will, in fact, occur in 2002.

While we understand that this is a very difficult process with many interests to be represented, we ask again that the Council focus on our particular situation, as it truly highlights the uniqueness of the Brown Crab fishery.

Sincerely,

RICHMOND & QUINN

Kristen K. Richmond

Kristen K. Richmond

KKR/ckd

Gordon Blue
P.O. Box 1064
Sitka, Alaska 99835

April 3, 2002

David Benton, Chairman
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

Transmitted by facsimile to: (907) 271-2817 (8) pages transmitted

RE: Agenda Item C-5(a), Crab Rationalization

Dear Chairman Benton:

Following is material pertinent to the Crab Rationalization Analysis discussion. This material has been excerpted from a larger article, which is in draft. The sections omitted are of an expository nature, and designed to bring a more general audience to an appreciation of the complexities of this rather arcane subject. These are of course, unnecessary in the present company.

Sincerely,

Gordon Blue

Processors are from Mars, Harvesters from Venus

Is Change coming to Council Family Values?

1. Summary and conclusion. Up front, for the seriously time-impaired.

Processors feel the ITQ in halibut/sablefish gave an unfair advantage to harvesters. Icicle Seafood's Ralph Hoard testified to the U. S. House Resources subcommittee on Oceans and Fisheries, on February 13, 2002, that Icicle was able to maintain a 50% market share of the halibut fishery by capitalizing equipment that accelerated the harvester's "race for fish." He stated that the result of ITQs in halibut was a loss of market share for Icicle, and a consequent loss of fishing receipts. "Capital stuffing" by a processor no longer guaranteed dominance of the market.

'Two pie' is a bargaining game structure designed to address such processor complaints. It goes too far. Its theoretic basis includes justifies processor collusion to set price and divide markets. Such collusion is illicit. Nevertheless, the 'two pie' theory argues that a processor cartel is necessary in a rationalized fishery, to balance the *potential* for a harvester monopoly. There is not now a harvester monopoly in crab: harvesters are losing money, on average. No monopoly has resulted from the halibut ITQ. It is unlikely that a monopoly could result in ITQ crab fisheries, either. A limited ability to 'organize' the crab fleet has resulted directly from the 'race for fish'. Under existing rules, harvesters must assemble in a few specified ports, to provide for pre-season tank inspections. After rationalization, harvesters will choose their own starting dates, and the ability to 'organize' the fleet will dissipate. There is neither necessity, nor reason, to legalize a processor cartel. Processors are advantaged by 'the race for fish'. Processors will also be advantaged in a crab ITQ program, as major stakeholders. Processors will have a dominant role in the ownership of crab harvesting shares, from the first day they are issued.

The reason tic-tac-toe is not a serious game, is that the first player will always win if he doesn't make a mistake. Harvesters understood that the initial 'two pie' proposal provided the "first-move" advantage of tic-tac-toe to processors. Proponents of the system brought additional rules into play, to answer this charge of imbalance. The initial "two pie" dialogue shifted, then, to a discussion of what rule changes would bring about a conversion of 'two pie marriage' to a more balanced and complex game that would allow more equity between harvesters and processors. This led to the proposals for "80/20", "90/10" and "binding arbitration."

There has been no progress in negotiation in nearly two years, since. The analysis that follows illustrates that the introduction of the proposed new rules has produced more complication and confusion, but no more equity. There is a great deal of similarity between the rules of the games 'tic-tac-toe" and "go," yet the possibilities for different outcomes depending on strategic play, are vastly different. 'Two pie' remains a species of 'tic-tac-toe.' It is theoretically possible that some as yet unimaginable rule change could salvage the 'two pie' plan, and bring about fairness. No such proposals have been made. *The 'two-pie' and 'voluntary coop' alternatives should be dropped.* An ITQ program that takes into its structure the community and regional protections which have been brought to the analysis, provides for an adequate and workable program, without needless complexity. Processors will be among the largest stakeholders when ITQ shares are issued. Processors do not require the special provision of a right to form a processor cartel.

2.Introduction. Game theory discussion can be more entertaining than other modeling.

The analysis is a game-theoretic examination of the strategic behaviors which are likely to result from each of several options now in consideration for rationalization of the Bering Sea and Aleutian Island [BSAI] crab fisheries by the North Pacific Fishery Management Council [NPFMC]. Game- theoretic consideration is of value in economic analysis when there are likely to be strategic elements in the decision

making of the participants in an economic process. The utility of this technique has led to greater acceptance among economists for analysis of this type of decision behavior, than purely theoretic modeling techniques. The technique is also accompanied by an ability to convey relatively abstruse considerations in familiar and concrete terms which are readily accessible to the layman.

The model chosen for this exercise is an examination of the operation of Processor - Harvester bargaining using terminology familiar to every American adult. This model is expressed in terms of a 'family law' dynamic, based upon the rules of each of the proposals in analysis. The introduction of gender into the discussion is purely felicitous. Processors are from Mars, harvesters from Venus.

• • •

6.Three systems of 'Family Law'

A. The ITQ.

In *status quo*, three types of relationships between processors and harvesters can be found.

'Marriage.' The Analysis shows that about one-quarter of the ITQs being initially allocated, will be allocated to harvesters owned or controlled by the same processors who also advocate for processing quota shares. An estimated additional 10% to 20% of initial ITQ will be issued to harvesters owned or controlled by processors who do NOT advocate for processing quota shares. The estimate is supported by the statement of processing quota advocate John Garner to the NPFMC. "We represent processors of about 80% of the crab harvest," he said. "Our members have reported our vessel ownership to the NPFMC." Most of the non advocating processors have adopted a "wait and see" approach, although a few have begun to oppose processing quota shares, as particular program elements are appreciated to impinge upon them.

'Committed/Cohabiting.' Many of the remaining harvesters, though independently owned, have very long and stable delivery relationships with processors. The number of these is known to processors in each company's instance, and there has been no attempt to quantify them for analysis. The relationships are unlikely to alter significantly under an ITQ fishery management structure, and will most likely continue to be stable. Seven years of this could be said to constitute a common-law marriage.

'Just dating.' The remainder of the harvester fleet is independently owned, and has changed markets one or more times within the past three years. In some cases, this occurs when the vessel changes fishing activities, in other cases it has been made necessary when processors left specific areas or markets, and in still others, the change occurs as a part of the business plan of the harvester, perhaps as price-seeking behavior. These relationships are also likely to continue in the same, uncommitted fashion, after an ITQ program is implemented.

The number of independent harvesters that remain after fleet consolidation due to rationalization is likely to be reduced, because of advantages available to vertically integrated operations, such as access to greater reserves of capital and information. Consolidation of capacity and reallocation of ITQs is likely to occur most rapidly among the 'married' and 'committed/cohabiting' members of the fleet, and these players will in turn compete with independent harvesters for the remaining pool of consolidating quota. This defines one of the greatest tasks facing the NPFMC - creating effective 'caps' for preventing too much consolidation of control over the resource. 'Too much consolidation' results in an inability of managers to effectively manage the resource.

'Cohabiting' harvesters will provide a degree of vertical integration greater than that anticipated by the use and ownership caps that are anticipated in the analysis. This results because these relationships behave as 'married' but are not 'owned or controlled' and therefore not enumerated or otherwise identified for

regulation. These 'informal marriages' will provide additional platforms for control of ITQ that will not be counted against the caps of the processing company. This creates a new 'efficiency' which will be a counter regulating artifact of the regulatory system designed to limit consolidation of interest.

It is difficult to be convinced, given a thorough understanding of the relationships which exist in the *status quo*, that ending the compulsion to 'race for fish' will create major shifts in market share for processors, in and of itself. As Felthoven has indicated, the extent to which technical harvesting efficiency may increase after rationalization is likely to be impacted by the processing strategies of inshore processors. This implies that processor competition for market share after an ITQ in the crab fisheries may take the form of shifts in processing strategies that will allow harvester efficiency gains to be maximized. Thus, the 'dating' relationship of harvester and processor is likely to continue under an ITQ, and the recognition of this is more likely to produce successful relationships, than inflexibility.

It is possible that the downward shift in market share experienced by Icicle during the advent of the halibut/sablefish ITQ, as noted by Hoard, was at least partly the result of an inability or unwillingness to allow for this shift in dynamic by changing processing strategy. To the extent that regulations abet such inflexibility, harvester efficiency gains are reduced, and neither the harvester nor the processor benefits. For example, consider the impact of a regulation which compressed the extended *opilio* 'biological season' of four or more months, to four weeks, in order to allow processors to shift their focus to some different activity. Then harvesters would not be able to experience the efficiency gains possible, and neither would processors. The absence of such compulsion cannot be automatically taken to be detrimental to processors, however, as again indicated by Felthoven. Processor efficiency gains are also possible, under an ITQ system, with a slower paced crab fishery.

B. The 'Two Pie' marriage.

The defining characteristic of the 'two pie marriage' is that it is universal. This compulsion to create a 'one size fits all' box, and confine all the players in it, has made the 'dating' crowd understandably nervous. This has also caused a great deal of angst for many of the 'committed/cohabiting' group, and a general chill has entered the relations of many formerly happy members of this set. On the side of the processors, this chill has increased the fear that the 'committed' relationship is not enough, and the 'two pie marriage' advocates conclude that it is even more important to establish this protection. This has led to a greater bearing down, and a more vigorous campaign to establish the 'two pie' institution, and a greater fear on the harvester side that the potential for abuse in a 'two pie marriage' is real, and to be feared. Thus, at this point, the efforts of the 'two pie advocacy' are creating greater distance, rather than closure, with the 'committed' and 'dating' fleet.

These efforts, however, are presently focused primarily on delivering the vote of the NPFMC. If this were accomplished, then the 'two pie marriage' would have cleared a major hurdle, and its advocates could shift to a different tactic with harvesters. This circumstance could be expected to signal increased courting behavior between processors and harvesters, which could accelerate and produce desperation among harvester 'old maids', as the processor's quota requirements are filled. However, a great deal of dissatisfaction by harvesters with the NPFMC decision could also lead to legislative deadlock, and a failure of the 'two pie marriage' to become authorized.

A second set of behaviors would govern the conduct of harvesters once the marriage(s) were consummated. What if a processor determines that he is unsatisfied with the market share that his processing quota allows? In the ITQ system, or in the present 'race for fish', this processor might simply bid for the product, by paying harvesters more to bring product to him. Until now, the more usual processor strategy to increase crab market share has been simply to encourage a new vessel to enter the fishery, by providing market opportunity, financial assistance to accomplish conversion or acquire gear or

licences, or providing tendering contracts or other employment. This has resulted in very little bidding for product through price, and few price wars on even a minor scale. In the ITQ fisheries, this tactic has a surrogate, which is assistance in financing quota purchase. This bidding occurs at relatively lower risk than 'open access' and capital cost is on the same financial order of magnitude as the 'open access' tactics.

The 'two pie marriage' doesn't prohibit a processor from getting more quota on the side. However, since the institution of marriage is mandatory for each harvester 'A' share, there is no ready pool of quota to draw upon, except for 'B' shares. Although price bidding may result, the transaction costs to acquire 'B' shares are likely to become prohibitive because of restrictive practices of processors. Just for one instance, 'tying agreements' could become adopted, which would require harvesters to deliver their 'B' shares to an 'A' share market, on a first option or other basis. More sophisticated wooing behavior would structure these agreements so that the 'B' share sale compelled an acceptance of the 'A' share quota by the processor.

In either event the result is the same, that processors will be required to pay one another, to increase their market share. This encourages a degree of processor collusion that is presently prohibited and discourages competition between processors. At the same time, this encourages processors to focus additional rent seeking as extractions from harvesters. Once an agreement between processors has been reached, to transfer processing quota by lease or sale, the agreement of the harvester to the transaction is moot. There will simply be no more place under the roof for her, and only one place to move.

Now, assume that there is a disagreement between a harvester and a processor who have been matched up for some interval, and they no longer wish to do business. Let this disagreement be for any reason, so that there is no stigma attached to either side - a no fault divorce, if you will. Under the two-pie system, the harvester would have to find a place to move to. The 2-pie system requires a processor quota share increment to match a harvester quota share increment. This means that there are four options available to the 'divorcing' harvester.

- Stop fishing - "homeless and out on the street" - maybe the harvester can sell out her shares and recover something - if there is anything to fish. The quota portfolio, at present, includes many stocks which are depressed. One of the most glaring limitations on ITQs as a buyback mechanism, is that the fishing quota share is strictly valued according to the present fishery. What if the fishery is closed, or at very low level?
- Trade down - swap 'A' shares for 'B' shares, and leave. Since she will be competing with the processor for these shares, she must prepare to take a major hit on price. She will also have to pay multiple transaction costs, since she will have to 'sweep up' shares from a number of other players. 'B' quota, after all, will be issued in relatively small amounts.
- Swap husbands - she could find a harvester that is wanting to leave another processor, has a similar amount of quota share, and is willing to try out her husband - if the husband [processor] has any say [and they will], this could get messy
- Bust up someone else's marriage, and move in - she could seduce a new processor and get them to throw the [other] wife out. This option, of course, exhibits a distinct downward pressure on ex-vessel price. Let's just assume the seducer has some bauble that turns the first processor's head - say, a block of halibut ITQ she is willing to commit. Surely the dumped wife will have no such asset. Then, what else is likely to get a 'spurned husband' to accept a 'rejected wife' than a considerable discount in ex-vessel price?

These are not considered socially desired behaviors in our civic lives, and we are unlikely to consciously devise a system that actively encourages them. I can not see why they are any more desirable

in our business lives. In fact, if we design a system like this, we can expect to have severe actual impacts on the health of communities.

C. The "voluntary coop" model marriage.

In the voluntary coop, there is a choice available to the harvester, to enter the 'two pie marriage' or remain 'dating' under 'open access.' Also, in the coop model, the husband swapping of "straight 2-pie" is discouraged. In order to move to a new processor, there must be a payment made to the old processor [pay to seduce].

This ends the no-fault divorce, and decides in the favor of the husband, in every case. Sometimes, a husband might actually be at fault. For example, let's say he still puts out the same price as everyone else, but the quality becomes a big factor - assume that suddenly, quality grading becomes punitive, and what was acceptable product delivered by the vessel, is no longer. In the short term, there is a conservation implication - high grading by the vessel increases, with an increase in handling mortality. In the long term, the conservation impacts either continue, or, if the punishment is great enough, the severance payment is made, a different processor is seduced, and some other wife gets thrown out.

In this civic marriage analogy, such a payment might almost make sense, accepting of course that the husband is always right. After all, the other wife would move in with the old husband after the swap, and share in the communal benefits of the severance payment. We are not talking about U.S. marriage practices here, however - we are talking about a society that is strictly, and intensely, polygynous.

In the Analysis, 75% of all opilio quota share would be allocated initially to the 8 top processors, and the 150 to 160 top harvesters. Roughly, a harem of 20 wives for each husband, at the 75% participation level. In this system, there is no community property, so the 'high grading' husband gets the blood money AND gets to collect a more valuable dowery (ie, pay a lower ex-vessel price for the same amount of quota share) to accept the 'damaged goods' - the wife displaced by the flight of the abused former spouse.

The model coop provides that vessels don't have to join [be married]. It is not at all clear that it allows vessels to return to open access, having once joined. If not, then the coop model provides an even more odious peonage than the 2-pie model, because of the "pay to seduce" provision.

Although it is not at all clear in the draft program stage, assume that unhappy wives can always go back on the open access street, and compete to support themselves. Then, an independent may scratch up a living, if she can provide high-enough quality goods at a low-enough price. Of course, this incentive is directly in conflict with the goals of the program in the first place - to get those harvesters off the street and create incentives for safety, conservation and stability [i.e. sustainability]. There is a major flaw, here - all the complication has not resulted in a better system.

Let me illustrate this with one more marriage analogy, to show the extent to which this system shelters abusers - and provides counter-incentives to solve the problems exhibited in the problem statement. Assume a small fishery - say, a Pribilof Is. red king crab fishery - was able to reopen. This isn't a necessary condition, it just simplifies the illustration. The top four processors have 2/3 of the initial allocation and the top 100 boats have about the same amount - these depending upon the option chosen from the analysis. So, an average harem of about 25 wives per husband. Now let's say that husband (A) is one of the four dominant males, and he has a special relationship with four of his wives. In this analogy, I can think of no other term - these wives are slaves. (A) owns them. There is no way they are ever going to move to another husband, unless (A) simply decides to whore them out, for greater personal return.

Let us assume that these wives are allowed to bargain price as part of the group. What will the long-term implications of this be? Such wives are allowed to bargain price in the pollock co-op, however, the

pollock coops are not directly analogous. In pollock, the only history is that of the vessel, and the fleet is almost entirely integrated into the ownership of the plants. This makes conditions somewhat different, and we can't simply assume that the experience of pollock will translate directly. In pollock coops, ex-vessel price as reported on fish tickets has fallen. This costs the State of Alaska money, on a per pound basis, though the increase in quota subject to tax, probably more than offsets the overall loss. Pollock vessels, however, are enthusiastically reported as experiencing increased income, due to 'off the ticket' bonuses. It is an unreported fact that crews are not sharing in these increases, in the vertically integrated fleet, because their pay has been restructured. In many cases, vessels are leasing quota to one-another and then charging that lease off against the gross stock - resulting in lower shares to crews, and higher returns to owners. Since some of these vessels have been acquired by processors more recently than their processing plants, this is most likely an internal reallocation of income to the area with the greatest tax-shelter, and not an actual sharing of benefits to harvesters.

That said, assume that slave wives are simply price takers in negotiation. This is probably a defensible argument, is it not? In the long term, strategies such as that reported for the pollock fleet will evolve, to the extent that the open access fishery is eliminated. In the short term, independent vessels will become converted at lowest possible cost to processor control. A specific strategy that would work to this effect, is if processor (A) reaches agreement with his four wives to take a price that results in an operating loss for those harvesters. Since (A) will support and sustain these wives (though not necessarily in the peak of safe condition) then it is simply a way for (A) to get best value - he works them and provides just enough allowance to keep them going.

Now, in the chosen fishery, four harvesters could take 100% of any likely quota, for the foreseeable future, so these wives could certainly take all of the QS needed to use the processing quota allocation belonging to (A). (A) would reasonably expect to offer the other 21 wives of his harem a payment - a royalty - to simply remain idle. Initially, compared to the mean streets of open access, harem life may seem like an ideal - she gets to collect a shiny-looking royalty. Since the price will ultimately be set by agreement with the slave wives, the royalty could be brought in at a high percentage for sake of appearances. Recruit wives think: "Sit back, never have to put out, and be happy. Let the slaves do all the work." This will create the closure necessary to draw them into the fold.

Soon, the income from the combined royalty and low (slave wage!) price will be too low to survive, even in the harem. What is the likelihood that these wives will be able to generate a separation payment? They will either be forced into the open access fishery (if the rules allow this) or be bled by royalty payments that won't sustain their overhead.

This is an ideal incentive for processor abuse. The price in the fishery is set by processor-owned vessels. These vessels are able to attain whatever efficiency benefit there is, in the quota share system. Some independent vessels may opt to continue in the open access fishery. As at present, these vessels will fish at a loss, on average. After a very short time, they will have been so weakened, they will revert to coop control, and the owners will make any arrangement possible to get out - even if they have to remain titular owners of the vessels, and be brought to collude to avoid the constraints of caps on processor ownership.

If the coop 2-pie system is implemented, processors will gain additional leverage over harvesters. Harvesters that attempt to exercise independence will find themselves in an even more intense race for fish. Conservation will be worsened in this race, which will leave the ADF&G in an unsavory role. The department, in its necessary role as conservation watchdog, will be forced to intervene with new proposed regulations, which in turn can only make the open access fishery even more difficult.

The role of the ADF&G, then, will become 'enforcer' for the coops, which will be vertically integrated

creatures of the processors, and will enjoy all the benefits of the new system. In the mid term, the coops will get all the good press, while a new system is created that destroys all independent operators, captures all the benefits to the coops, and leads to the long-term decline of the communities that now receive the benefits of the harvest, directly and indirectly. The long-term implications of the coop 2-pie system include that the ADF&G will have become so co-opted by its role as enforcer and cheerleader for the coops, it will be incapable of the kind of monitoring and enforcement that will be required to actually do its job for conservation.

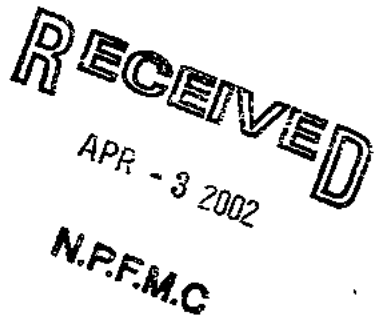
Why would we choose to go down such a path?

• • •

HEUKER BROS., INC.
62975 NE Tumalt Road
Cascade Locks, OR 97014
(541) 374-8255 o Fax: (541) 374-8553

April 3, 2002

VIA FACSIMILE 907-271-2817



David Benton, Chairman
North Pacific Fishery Management Council
605 West 4th Ave, Ste 306
Anchorage, AK 99501-2252

SUBJECT: **Crab Rationalization**
Replacement Vessel/Catch History
F/V Sandra Five

We are the owners of the F/V Sandra Five (ADF&G #70770), a replacement vessel for the F/V Chevak, which sank in February 1994. Before being lost, the Chevak was a crab catcher vessel with catch history dating back to the 1980s.

At the February council meeting, two concerns were expressed about my replacement vessel catch history. The first concern was a valid License Limitation Program (LLP) permit. At that time, we did not have a permanent LLP, but since the meeting, we have received a permanent, transferrable LLP permit for the F/V Sandra Five (see attached Permit No. LLC3590).

The second concern was a comment made that it appeared we have just recently brought this matter to your attention, i.e., it looks like we just recently bought the sunken vessel catch history. In fact, I have sent four previous letters trying to address this issue (see attached copies, dated 01/31/01, 03/30/01, 04/27/01 and 01/06/02) and as outlined below, have worked diligently to follow the regulations in effect.

We started looking at replacing the F/V Chevak as early as 1994. Serious negotiations began in late 1996 with final contracts acquired in October 1997. Construction on the F/V Sandra Five began in November 1997 with completion on June 20, 1998. At the time of the final contract in October 1997, we had worked with the Council and NMFS RAM Division to review the purchase contract to comply with the regulations in effect at the time. Also at that time, there was no mention of looking at any catch history beyond 1995.

We've followed all the rules at the time of purchase of the fishing rights and catch history. We also qualified under the recent participation requirements (RRP). By changing the rules in the middle of the game, you will make it impossible for me to have enough catch history to run a profitable operation. This is not a hardship case. This is a unique situation caused by a governmental process that will have taken over ten years to complete. This situation can be avoided by my proposed amendment(see attached copy)

Please consider this information and my amendment at your April Council Meeting. I would be happy to testify at the April meeting. Please contact me at (541) 374-8255 (office), (503) 789-7888 (cell) or email *heukerbros@gorge.net*

Sincerely,

HEUKER BROS., INC.

Chris Heuker, President

CH:dwh
Attachments

Heuker Bros., Inc.
62975 NE Tumalt Road
Cascade Locks, OR 97014
541-374-8255 ☼ FAX (541) 374-8553

April 3, 2002

David Benton, Chairman
and NPFMC Council Members
604 West 4th Ave, Ste 306
Anchorage, AK 99502-2252

SUBJECT: **Proposal for Replacement Vessel/Catch History**

Please consider the following:

Proposal: For initial allocation of quota share for Amendment 10-approved replacement vessels (for sunken vessels only).

1.4 Initial Allocation of Quota Shares (QS):

1.4.1 Suboption (a) Calculation of QS distribution:

Develop a new suboption for Amendment 10 replacement vessels, that replaced sunken vessels:

> For each of the fisheries for which such a vessel holds valid endorsement for any years between the sinking of the vessel and the entry of the replacement vessel to the fishery, allocate QS according to 100% of the vessel's average history for the qualifying years unaffected by the sinking.

Sincerely,

Chris Heuker

ASSUMG NMFS OFFICE:
Restricted Access Management
P.O. Box 21668
Juneau, AK 99802-1668

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

LICENSE LIMITATION PROGRAM

Crab License Number: LLC3590

LICENSE HOLDER

HEUKER BROS., INC.
62975 NE TUMALT ROAD

CASCADE LOCKS, OR 97014

ENDORSEMENT

	Name	ADFG	Coast Guard
Vessel:	SANDRA FIVE	70770	1068196

Operation Type: Catcher Vessel

MLOA (Feet): 126

Species/Area: Bristol Bay Red King Crab
BSAI C.Opilio and C.Bairdi Crab
St. Mathews Blue King Crab

SPECIAL TERMS & CONDITIONS

Issue Date: February 28, 2002

Transferable? Yes

Note: A variety of state and federal regulations govern commercial fishing and processing privileges. It is the responsibility of any person conducting fishing activities under the authority of this permit to understand and comply with those requirements.

Program Administrator, Restricted Access Management

License Holder's Signature

HEUKER BROS., INC.
62975 NE Tumalt Road
Cascade Locks, OR 97014
(541) 374-8255 ◇ Fax: (541) 374-8553

January 31, 2001

VIA FACSIMILIE 907-271-2817

David Benton, Chairman
NPFMC Council Members
605 West 4th Ave, Ste 306
Anchorage, AK 99501-2252

SUBJECT: **LLP Program and the Capacity Reduction Program**
F/V Sandra Five ADFG #70770

We would like to address the issue of the Capacity Reduction Program recently approved by Congress. This legislation applies retroactively (i.e., a current replacement vessel is now ineligible) and prospectively (i.e., any vessel lost in the future cannot be replaced). It was our understanding that anyone with a valid LLP permit would be issued a Certificate of Vessel Eligibility based on the approved legislation.

Based on the previous regulations (and direction) of the NMFS Restricted Access Management division, we purchased fishing rights from a sunken vessel and proceeded to construct the *F/V Sandra Five*. Halfway through construction, we were informed that we weren't eligible because of a change in the recency requirements. We subsequently proceeded to work with the Council to adopt and implement Amendment 10 and the four exemptions contained therein. After an extensive investment of time and money (nearly $2 million), we were under the assumption that after we received the LLP, we would then be permanently eligible for the crab fishery with our vessel.

It appears that NMFS Restricted Access Management (RAM) division's interpretation of the new congressional buyback language is more restrictive than the Council's original intent. Our vessel qualified under the Council's intent by recognizing combined history and replacement provisions provided for by the Council (under Amendment 10), in contrast to the RAM division's interpretation which fails to include the combined history exception for crab vessels and a replacement provision for vessels that are lost. By a literal interpretation of the new Congressional buyback language, RAM is not following the same logic and intent as the Council, thus not issuing permanent licenses to vessels relying on combined histories.

We do not believe it was Congress' intent to ignore the Council's previously-approved actions. We request the Council contact the appropriate government offices and agencies to correct this misinterpretation and restore the vessel's eligibility.

Sincerely,

HEUKER BROS., INC.

Chris Heuker, President

HEUKER BROS., INC.
62975 NE Tumalt Road
Cascade Locks, OR 97014
(541) 374-8255 o Fax: (541) 374-8553

March 30, 2001

VIA FACSIMILE 907-271-2817

David Benton, Chairman
and NPFMC Council Members
605 West 4th Ave, Ste 306
Anchorage, AK 99501-2252

SUBJECT: **Crab Rationalization - Replacement Vessel/Catch History**

We are the owner of the F/V Sandra Five, ADF & G #70770, a replacement vessel for the F/V Chevak, which sank in February 1994. Before being lost, the Chevak was a crab catcher vessel with catch history dating back to the 1980s. The Chevak was strictly a pot fishing catcher vessel, and if not lost, it would still be active in the pot fisheries.

Plans for replacement of the Chevak and purchase of the fishing rights and catch history began in 1996. Final contracts were acquired in October 1997, and construction of F/V Sandra Five began November 4, 1997 with completion on June 20, 1998. The Chevak had catch history from 1990-1994 and F/V Sandra Five has catch history from 1998 (blue and red king crab) and 1999 (opilio, blue and red king crab).

I understand the committee is considering catch history from 1990-1999, 1992-1999 or 1995-1999. Due to the time and financial commitment required, replacement vessels cannot be completed in between seasons. Therefore, under the first option (1990-1999), we would lose 40% of our catch history. For the years 1992-1999, we would lose 60% of our catch history, and for the years 1995-1999, we would lose 80% of our catch history. This is based on the opilio fishery only. A reduction of this magnitude would put undue hardship on our participation in the future crab fisheries, and ultimately affect the financial stability of the families relying on the income from this vessel.

To my understanding, there are 10-12 vessels in the same situation. The vessels could average their catch history over the years they participated and apply the result to the years they lost during replacement of the vessel. It would be unreasonable to apply zero catch histories in coming up with an average for the vessel as the vessel has proven history when the vessel was participating. This would not apply to vessels that left to participate in another fishery, rather only those vessels that did not participate in any fishery at all.

With this said, it would be our recommendation that the Crab Rationalization Committee address the issue of replacement vessels and find ways to resolve it in the planning stages rather than later where there is potential for delaying adoption of the program.

Sincerely,

Chris Heuker

HEUKER BROS., INC.
62975 NE Tumalt Road
Cascade Locks, OR 97014
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April 27, 2001

VIA FACSIMILE 907-271-2817

Dave Hanson, Chairman
Crab Rationalization Committee
North Pacific Fishery Management Council
605 West 4th Ave, Ste 306
Anchorage, AK 99501-2252

SUBJECT: **Crab Rationalization - Replacement Vessel/Catch History**

Dear Mr. Hanson:

On March 30, 2001, I filed a letter with the council regarding catch history of replacement vessels (copy attached). Please consider this my request to circulate this letter to the Crab Rationalization Committee members for their consideration.

We feel the the Crab Rationalization Committee should address the issue of replacement vessels and find ways to resolve it in the planning stages rather than later where there is potential for delaying adoption of the program.

I would appreciate hearing from you on whether my request can be granted. You may contact me at the phone number provided above or at *heukerbros@gorge.net*.

Sincerely,

Chris Heuker

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Cascade Locks, OR 97014
(541) 374-8255 ◦ Fax: (541) 374-8553

January 6, 2002

VIA FACSIMILE 907-271-2817

David Benton, Chairman
North Pacific Fishery Management Council
605 West 4th Ave, Ste 306
Anchorage, AK 99501-2252

SUBJECT: **Crab Rationalization**
Replacement Vessel/Catch History

Upon reviewing the crab rationalization reports, I have not seen any mention of how replacement vessels are dealt with, which will have a limited crab history. As stated in my previous letters (see attached March 30, 2001 and April 27, 2001 letters), losses of this magnitude would put an extreme hardship on our participation in future crab fisheries. It is my understanding that less than six vessels would be in these same circumstances. Constructing a replacement vessel is more than a one-year project.

Please consider this information at the next Crab Rationalization Committee meeting. I would be happy to testify at the February meeting. Please contact me at (541) 374-8255 (office) or (503) 789-7888 (cell) or email *heukerbros@gorge.net.*

Sincerely,

HEUKER BROS., INC.

Chris Heuker, President

CH:dwh
Attachments
cc: Crab Rationalization Committee

C.R.A.B. GROUP

Crab Rationalization and Buyback Group

907-747-7967 · P. O. Box 1064 · Sitka, Alaska 99835

April 3, 2002

Agenda Item C-5

Mr. David Benton
Chairman
North Pacific Fishery Management Council
605 West 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

Dear Mr. Chairman and Members of the Council:

The C.R.A.B. Group would like to bring to your attention testimony which Dr. Robert Halvorsen of the University of Washington presented to the Fisheries Subcommittee of the Committee on Resources of the United States House of Representatives on February 13, 2002. In his testimony Dr. Halvorsen specifically reviewed the economic analysis Dr. Matulich has advanced in support of the "two-pie" approach for allocating quotas to fishermen and processors.

After reviewing Dr. Matulich's papers on the subject and the papers cited by Dr. Matulich in support of his theory, Dr. Halvorsen found that Dr. Matulich's claimed "proof" that a two-pie allocation would be "Pareto-safe" in a bilateral monopoly is invalid. Dr. Halvorsen also concluded that "no credence should be given to [Dr. Matulich's] claims that a "two-pie" system is a 'policy superior initial allocation of rights.'" (See attached Testimony of Dr. Robert Halvorsen, pages 2 and 11-12).

Dr. Halvorsen's testimony also provides some academic insight into the "Pareto-safe" concept that is at the heart of Dr. Matulich's rationale for why processor quota shares are necessary to ensure that an Individual Fishing Quota (IFQ) allocation program does not harm processors. Council members may be interested to learn that the term "Pareto-safe" appears to have been originated by Dr. Matulich, and that the "Pareto criterion" on which the concept is based has been long held to be "of little practical use." The reason the "Pareto-safe" concept is of little practical use is, as Dr. Halvorsen explains, because "virtually all feasible public policies result in at least one individual being worse off" and therefore would fail to meet the "Pareto criterion." (Halvorsen Testimony at pages 9-10).

The C.R.A.B. Group urges the Council to review the attached testimony. It clearly demonstrates the complete lack of academic support for the two-pie allocation model championed by Dr. Matulich. It is time the Council devoted greater time and attention to the far larger body of academic research, staff analysis, and legal jurisprudence that all conclude that allocating specific shares of a market to individual processors is anti-competitive and harmful to fishermen and consumers. Dr. Halvorsen will be attending this meeting, and we hope you will each take the time to discuss the serious deficiencies of the "two-pie" model further with him.

Cordially,

Earl Comstock
Counsel to the C.R.A.B. Group

Agenda Item C-5

Statement of Proposed Testimony to the
Subcommittee on Fisheries Conservation, Wildlife and Oceans of the
Committee on Resources
U.S. House of Representatives

Robert Halvorsen
Professor of Economics
Department of Economics
University of Washington

On behalf of the
Crab Rationalization and Buyback Group

Executive Summary

My testimony addresses the issue of whether the guidelines for Individual Fishing Quota (IFQ) programs should require explicit mechanisms to ensure that processors are compensated for losses they might incur as a consequence of the introduction of IFQs. I begin by discussing the importance of market structure in determining the effects on processors and harvesters of rationalizing a fishery, with the primary emphasis placed on the effects of an IFQ program in which quota shares are allocated only to harvesters.

To illustrate the importance of market structure and the balance of bargaining power on the outcomes of a rationalization program, I review a recent analysis of the BSAI inshore pollock fishery that was prepared for the North Pacific Fishery Management Council (Halvorsen, Khalil, and Lawarrée 2000). The analysis demonstrates that market structure is critical in determining the distributive outcomes of IFQ programs. Because the characteristics of market structure differ greatly across fisheries, the distributive effects of rationalization policies require fishery specific analysis. It is concluded therefore that decisions concerning the desirability of mechanisms to compensate processors for potential losses, and the type of mechanism that is most appropriate, should also be fishery specific, rather than attempting a "one-size-fits-all" approach.

Next I discuss the rationales that have been advanced for compensating processors for any losses that they may incur as the result of a rationalization program. My primary emphasis is on the argument that if processors are not compensated they may block the implementation of a rationalization program, with the result that the potential efficiency gains from the program cannot be realized. I note that there are several problems with this argument. First, attempts to block a program unless distributive outcomes are altered may simply reflect an attempt to increase the size of already positive net benefits, rather than to avoid losses. Second, if harvesters become concerned that the attempt to keep processors safe from harm will result in losses for harvesters, they may also try to block implementation. Lastly, when efforts to hinder implementation are rewarded, an incentive is created for increased obstructive behavior in the future.

Following this general discussion, I consider two recently proposed concepts that have received a considerable amount of discussion in the context of rationalization programs in North Pacific fisheries. One is that rationalization programs should satisfy the criterion of being "Pareto safe," which requires that no fishery entities be made worse as a result of rationalization. The other is that an IFQ program should also involve the allocation of Individual Processor Quotas (IPQs) in what has come to be known as the "two-pie" approach.

The two concepts are linked in that the two-pie system has been advocated by Matulich and Sever (1999) as a feasible way of achieving Pareto-safe rationalization in at least some policy-relevant situations. In particular, Matulich and Sever claimed to have proven that a two-pie allocation would be Pareto safe in a bilateral monopoly, that is, a

fishery with only one harvester and one processor, and asserted that their analysis of this case would be applicable to the BSAI inshore pollock fishery because it "emulated" a bilateral monopoly. However, neither of these claims is correct. First, as discussed in Halvorsen, Khalil, and Lawarrée (2000), the characterization of the BSAI inshore fishery as a bilateral monopoly was highly misleading because it ignored critical elements of the inshore fishery's market structure. Second, and more importantly, my testimony shows that the claimed proof that a two-pie allocation would be Pareto safe in a bilateral monopoly is invalid. Therefore, even if a real-world fishery could be found that was a bilateral monopoly, there is no reason to believe that a two-pie allocation would be Pareto safe.

Since there are no other market structures for which the Pareto safety of a policy feasible two-pie system has even been asserted, no credence should be given to claims that a two-pie system is a "policy-superior initial allocation of rights" (Matulich, Mittelhammer, and Reberte 1996, page 112). Instead, the inclusion of IPQs in a fishery rationalization program should be viewed as simply one possible mechanism for enhancing outcomes for processors, bearing in mind that the possible outcomes under IPQs have received very little credible economic analysis and are untested by experience in any real-world fishery.

Evaluations of the appropriateness of allocating IPQs as part of a specific rationalization program should include (i) an assessment of whether compensation for processors is desirable, given the characteristics of the specific fishery, in particular the balance of bargaining power, and (ii) the relative merits of IPQs versus other possible compensation programs, given the characteristics of the specific fishery.

Accordingly, it is desirable that regional councils have flexibility in deciding whether, and how, processors should be compensated for possible losses arising from a fishery rationalization program. Therefore, I recommend that the national standards for fishery conservation and management not require that IPQs or other specific compensation mechanisms be included in future fishery management plans and regulations.

1. Introduction

My testimony addresses the issue of whether the guidelines for Individual Fishing Quota (IFQ) programs should require explicit mechanisms to ensure that processors are compensated for losses they might incur as a consequence of the introduction of IFQs. I will discuss in turn the conditions determining the probability, extent, and incidence of such losses, and the efficiency and equity rationales that have been advanced in favor of compensation.

I will pay particular attention to two recently developed concepts that have received a considerable amount of discussion in the context of rationalization programs in North Pacific fisheries. One is that rationalization programs should satisfy the criterion of being "Pareto safe," which requires that no fishery entities be made worse as a result of rationalization. The other is that an IFQ program should also involve the allocation of Individual Processor Quotas (IPQs) in what has come to be known as the "two-pie" approach. The two concepts are linked in that the two-pie system has been put forward as a feasible way of achieving Pareto-safe rationalization in at least some policy-relevant situations by Professor Scott Matulich and his co-authors (Matulich, Mittelhammer, and Reberte 1996, Matulich and Sever 1999).

2. The Effects of IFQ Programs on Processors

Unless specified otherwise, the phrase "IFQ program" will refer to a program in which IFQs are allocated only to harvesters. In analyzing and predicting the effects of such an IFQ program on the well-being of processors, it is critical to take into account the specific conditions of the fishery being considered.

One important set of conditions concerns the market structure of the fishery. The first analyses to emphasize the possibility of processors incurring losses as a result of the introduction of an IFQ program (Plesha and Riley 1992, Matulich, Mittelhammer and Reberte 1996) assumed that the fishery was perfectly competitive, the end of the race for fish created excess processing capacity with no alternative uses, and the firms in the industry were not vertically integrated (that is, processors did not own harvesters or vice versa). Given these assumptions, they conclude that processors would be made worse off by an IFQ program because they would fail to obtain any of the rents from fish and would also lose part of the value of their capital.

However, if all other circumstances were the same, but processors and harvesters were vertically integrated (as for example in a fishery comprising only factory trawlers), then processors could not be made worse off because they would receive the full benefits of the rationalization program (Matulich and Sever 1999). In a mixed case, with some processors vertically integrated and others not, the incidence of gains and losses might differ by type of entity, with non-integrated processors being more susceptible to suffering losses than integrated (Halvorsen, Khalil, and Lawarrée 2000).

Perfect competition is one of the standard models used in economic analyses, in part because of its analytical simplicity. Examples of other standard models familiar from economic theory include monopoly (a single harvester facing perfectly competitive processors), a monopsony (a single processor facing perfectly competitive harvesters), and a bilateral monopoly (a single harvester facing a single processor). In the first case, the monopolist would obtain all the net benefits of the fishery, in the second case the monopsonist would, and in the third case the division of net benefits would depend, among other things, on the alternative opportunities available to the participants.

These three standard models also have the advantage of analytical simplicity, but are not in general directly applicable to the analysis of the effects of IFQ programs for two reasons. First, the characteristics of the market structures of real-world fisheries are more complex than such simple theoretical models imply. And second, if a fishery did conform to one of these model specifications, then it would be expected to be capable of maximizing aggregate net benefits on its own, which would preclude the development of a race for fish. For instance, a monopolist harvester would optimally allocate its fleet over time rather than engaging in a race to fish between its own vessels. Accordingly, rationalization programs such as an IFQ program would be redundant.

However, consideration of these standard models does illustrate the wide range of results possible with respect to the division of the net benefits of a fishery, and therefore the need to take market structure into account when assessing the effects of an IFQ program on the participants in the fishery. Also, to the extent that a fishery being considered for an IFQ program has characteristics similar to a standard model, some inferences may be drawn about the probability that processors could be adversely affected by the implementation of the program. For example, other things equal, implementing an IFQ program in a fishery with very few processors and many harvesters is less likely to result in processor losses than in a fishery with many processors and harvesters.

More generally, these examples suggest the importance of bargaining power in determining the distributive effects of an IFQ program, and therefore the need to use the tools of game theory to assess the possible outcomes of a particular IFQ program. These tools include cooperative bargaining theory (e.g., Nash 1953) and non-cooperative bargaining theory (e.g., Osborne and Rubinstein 1990). A recent example of an analysis of a fishery using cooperative and non-cooperative bargaining theory is Halvorsen, Khalil, and Lawarrée (2000). This analysis, which was prepared on behalf of the North Pacific Fishery Management Council, considered the prospective distribution of net benefits from rationalization of the inshore sector of the Bering Sea/Aleutian Islands (BSAI) fishery under the American Fisheries Act (AFA).

Although most of the specific results of the analysis are directly applicable only to that particular fishery, a brief review of the main elements of the analysis is useful to illustrate the issues involved. The review also will be useful as background for the evaluation of the two-pie allocation, which was initially discussed in the context of the inshore pollock fishery.

Halvorsen, Khalil, and Lawarrée evaluated, and rejected, the suitability of several standard economic models that had been proposed for application in the inshore pollock fishery. For example, Wilen (1998) had argued that the inshore fishery was best characterized as a single monopsony, in part because of the dominant position of two firms in the main market for surimi products. Halvorsen, Khalil, and Lawarrée concluded that Wilen's analysis substantiated the hypothesis that processors had significant market power, but that the fishery was not a monopsony.

One reason given for rejecting the conclusion of monopsony was that for the processors to behave as a monopsony they would have to overcome serious economic and legal difficulties associated with being a successful cartel. Also, there was evidence that the processors had not always acted in a united way, as they would have if they were a monopsony. For example, when the Bering Sea Marketing Association (BSMA) went on strike against several processors in 1999, the largest processor in the fishery, which was not a party to the negotiations, had its fleet continue to fish, making prolongation of the strike too costly to both the members of the BSMA and their processors. The existence of the BSMA also argued against the conclusion that the inshore sector was a monopsony, because its collective bargaining is not consistent with harvesters acting as passive price takers. Lastly, as noted above, an effective monopsony would have been capable of substantially rationalizing the fishery without the intervention of the AFA.

The existence of the BSMA was considered especially important by Matulich and Sever (1999), who argued that it implied that the inshore sector was a single bilateral monopoly. They claimed that the dissemination of price information to each processor by the marketing association during the course of negotiations allowed the processors to unify even though they were not sharing information among themselves. In other words, Matulich and Sever were claiming that the BSMA, acting as the representative of independent catcher vessels, unwittingly made it possible for the processors to unite against its own clients.

One serious factual problem with Matulich and Sever's analysis is that the BSMA did not represent all of the independent catcher vessels, and the largest processor was not a party to the negotiations. Also, the theoretical analysis left two critical questions unanswered. First, why would the marketing association not take advantage of the processors' lack of communication and play one against the other by misrepresenting received price offers? Second, even if it did not do so, why would information on prices be sufficient to allow the processors to overcome the other economic and legal difficulties hindering their behavior as a single agent?

Another critical factual problem with Matulich and Sever's analysis is that it ignored the existence of substantial vertical integration in the fishery. Based on National Marine Fishery Service data, processor controlled vessels harvested approximately half the total allocation of catch to the inshore sector. This makes the existence of a united harvesting sector implausible, because processor controlled vessels would be subject to

conflict of interest issues and could not be expected to consider only the effects on harvesters of the results of negotiations with processors.

Furthermore, the degree of vertical integration was not uniform across processors. For example, two of the largest processors, which together accounted for about two-fifths of the total inshore catch, were estimated to obtain more than eighty percent of their fish from their own processor controlled vessels, whereas another large processor, with about one-fourth of the total inshore allocation, obtained virtually all of its fish from independent catcher vessels. The differences in the degree of vertical integration implied differences in the effects of a given negotiated outcome, complicating any effort of the processors or harvesters to act in unison.

Based on their assumption that the inshore sector was a bilateral monopoly, Matulich and Sever (1999) recommended that a two-pie rationalization approach be implemented, and claimed that it would result in a Pareto-safe distribution of net benefits. However, as discussed in section 5 below, Matulich and Sever's theoretical analysis of the two-pie system under bilateral monopoly is fundamentally flawed, and their conclusion that it would guarantee a Pareto safe outcome is simply incorrect. Furthermore, even if their analysis of a two-pie program under bilateral monopoly had been correct in theory, advocacy of this particular policy approach for this specific fishery was based on a highly misleading characterization of the fishery's market structure.

Halvorsen, Khalil, and Lawarrée (2000) used concepts from game theory to evaluate the nature of competition in the industry, and the resulting balance of bargaining power. They concluded that the processors had a number of important bargaining advantages. The large portion of the harvest caught by processor controlled vessels reduced the reliance of the vertically integrated processors on supply from independent catcher vessels, while also providing processors an informational advantage because the independent catcher vessels they bargained with did not own inshore processing plants. Also, because the processing sector was highly concentrated and new entry was prohibited under the AFA, processors would be expected to realize that aggressive tactics yielding short-term gains were unlikely to be profitable in the long-run. Independent catcher vessels did have one bargaining advantage in that they were able to legally bargain as a group. However, it was concluded that on balance the processors had substantially more bargaining power than independent catcher vessels.

The Halvorsen, Khalil, and Lawarrée analysis noted that rationalization of the inshore pollock fishery was expected to result in a large increase in the effective amount of processing capacity, which would provide more opportunities for processors to engage in aggressive competition, but the long-term incentives for refraining from doing so would remain. Therefore they concluded that the rationalized fishery would be characterized by "moderate but not cutthroat competition" among processors.

These conclusions concerning bargaining power were then applied to analyze two alternative rationalization programs being considered by the Council: processor-specific

cooperatives (an implicit processor compensation mechanism) and the Dooley-Hall proposal for non-processor-specific cooperatives (an approximation to IFQs). Halvorsen, Khalil, and Lawarrée concluded that there was a significant probability that some independent catcher vessels would be adversely affected by the requirement of processor-specific cooperatives. They also concluded that the Dooley-Hall proposal would be more favorable to independent catcher vessels, and less favorable to processors, than the processor-specific cooperatives.

Their conclusions concerning the relative bargaining power of harvesters and processors in the inshore BSAI pollock fishery would also have been relevant to the analysis of the effects on processors of alternative rationalization programs including IFQs. However, it is important to note that the conclusions were based on the conditions in this specific fishery. Because market structure is critical in determining the distributive outcomes of IFQ programs, and the characteristics of market structure differ greatly across fisheries, the distributive effects of rationalization policies require fishery specific analysis. Accordingly, decisions concerning the desirability of mechanisms to compensate processors for potential losses, and the type of mechanism that is most appropriate, should also be fishery specific, rather than attempting a "one-size-fits-all" approach.

On the other hand, the basic principles underlying the recommendation that processors should be compensated for losses arising from fishery rationalization programs can be addressed at a general level. The following section discusses the principal arguments that have been made in support of compensation based on considerations of efficiency and equity.

3. Rationales for Compensation

One rationale advanced for compensating processors for possible losses is that not doing so could have adverse consequences for economic efficiency by creating impediments to the implementation of efficiency-enhancing rationalization programs. This possible source of inefficiency is emphasized by Matulich, Mittelhammer, and Reberte (1996). Having concluded that processors could suffer losses as the result of the introduction of IFQs in a perfectly competitive fishery, they note (page 112), "These losses could promote political gridlock and jeopardize adoption of an ITQ policy unless they are fully compensated or redistribution is avoided by a policy-superior initial allocation of rights to both harvesters and processors."

This argument assumes that processors do not have enough economic bargaining power in rationalized fisheries to avoid losses, but do have enough political bargaining power to block efficiency-enhancing rationalization programs. However, as the Halvorsen, Khalil, and Lawarrée analysis of the BSAI pollock fishery indicated, processors may in fact have more bargaining power than harvesters in some real-world fisheries.

Therefore, a situation in which processors seek rent-enhancing mechanisms as the price of agreeing to rationalization programs may simply reflect the desire of processors to obtain a larger share of the net benefits the program would create, rather than that they are seeking to protect themselves from suffering losses. Under these circumstances, utilizing mechanisms to enhance the processors' share of the net benefits could actually create new impediments to the implementation of rationalization programs by causing harvesters to fear that they would lose out from the implementation of the program.

The history of the American Fisheries Act is instructive in this regard. Rationalization of the BSAI pollock fishery was based on the creation of harvesting cooperatives. Processors in the inshore sector expressed concern that cooperatives might put them at a bargaining disadvantage. In response, the AFA rules for cooperatives required that they be processor-specific, and that membership in the cooperative for each processor was limited to vessels that were qualified for that processor, as determined by where a catcher vessel had previously delivered the largest share of its total catch.

In response, an association of independent catcher vessel owners expressed concern that the AFA rules for inshore cooperatives would harm them because of the restrictions placed on where they could market their fish, and proposed an alternative set of rules known as the Dooley-Hall proposal. Resolution of this conflict required extensive hearings before the North Pacific Fisheries Management Council. In addition, concerns were raised about the effects of processor-specific cooperatives on small entities as defined in the Regulatory Flexibility Act.

Another possible disadvantage of responding to processors' resistance to the adoption of a rationalization program by incorporating mechanisms to enhance their position is that doing so might have adverse efficiency consequences in the longer run. If it appears that policy makers are willing to appease opponents of rationalization by enhancing their rewards, this will provide incentives for increased obstructive behavior in the future, and thereby imperil the implementation of rationalization programs in other fisheries.

The other principle rationale for compensating processors against possible losses is that it would be inequitable not to do so. For example, Plesha and Riley (1992) and Matulich, Mittelhammer, and Reberte (1996) argue that there is a Fifth Amendment "taking" issue if the rationalization of a fishery results in losses for processors.

Without attempting to address the implied legal issues, some observations can be made on whether investment losses from rationalization are inequitable from an economic point of few. It seems unlikely that the investments assumed to be at risk from rationalization were made with the anticipation that the race for fish was certain to be the long-run equilibrium outcome for the fishery in question. Faced with an uncertain future, processors' investment decisions can be assumed to have taken into account the possibility of various alternative scenarios, including regulatory policies to end the race for fish. Accordingly, investment decisions would be optimized to reflect trade-offs between the various possible future outcomes. For example, there might be a trade-off

between further increasing investment in capacity in order to secure competitive advantages by, for example, deterring the entry of new processing firms into the fishery, versus the advantage of having the smaller amount of capacity that would be optimal if the race for fish were ended. It is not clear why losses that had been anticipated to occur under a particular scenario should instead be compensated on equity grounds when that scenario turns out to be the actual outcome.

Another equity issue concerns the distribution of net benefits within the processing sector. For example, as noted above, in a processing sector comprising some firms that are vertically-integrated and some that are not, the non-integrated processors would be more susceptible to suffering losses from rationalization than would the integrated processors. But the choice to not be vertically-integrated presumably reflects a judgement by these firms that they obtained enough economic advantages by refraining from acquiring harvesting capacity to compensate for the increased risk of losses if the fishery were rationalized. Adopting a policy to compensate all processing firms for possible losses would change the anticipated benefits and costs of these business decisions after the fact and thereby effectively discriminate in favor of the non-integrated firms, partly at the cost of harvesters.

Matulich and Sever (1999) use the term "Pareto safe" to refer to the concept of a rationalization program that is "equitable in the sense of not redistributing status quo ante wealth of historical participants" (page 204). They then argue that if a rationalization program is not Pareto safe, "politically powerful interest groups may form to block a switch to ITQ management, jeopardizing the efficiency benefits of rights-based fishing (page 215). The desirability, and feasibility, of relying on the concept of Pareto safety in designing and evaluating fishery rationalization polices is discussed in the following section.

4. Pareto Safe Rationalization

Although the term "Pareto safe" appears to have originated in the writings of Matulich and his co-authors, essentially the same concept has been long known in the economic policy analysis literature as the Pareto criterion. "The logical criterion for proving that a policy change, or any other change, is beneficial was first stated by a nineteenth century Italian social scientist, Vilfredo Pareto. Pareto's rule is very simple: Program X improves the welfare of the society if it makes at least one person better off and no one worse off." (Gramlich 1990).

The recommendation by Matulich and his co-authors that fishery rationalization policies should be required to be Pareto safe is equivalent to saying that they should satisfy the Pareto criterion. However, the Pareto criterion only provides information on a policy's effect on economic welfare when the policy would result in no individual being made worse off. A policy that involved small losses to one individual, and large gains to many others, would fail the Pareto criterion, even though it might have a large positive effect on economic welfare. And virtually all feasible public policies result in at least one individual being made worse off.

This has led to the general rejection of the Pareto criterion as a practical basis for evaluating public policies. As Ng (1984, page 1033) summarizes, "The Pareto criterion is widely accepted as a sufficient condition for an improvement in social welfare. ... However, most, if not all, changes in the real world involve making some better off and some (no matter how small the number) worse off. Thus the Pareto criterion in itself is of little practical use."

The practical difficulties of trying to implement Pareto safe fishery rationalization policies can be illustrated by considering the effects on individual harvesters of implementing an IFQ program. Matulich, Mittelhammer and Reberte (1996, page 112) indicate that an IFQ policy would be Pareto safe within the harvesting sector, because "endowing individual harvesters with fully transferable, permanent, and exclusive fishing rights is tantamount to assigning property rights over the fish stock...[an important benefit]...arises out of gains from free trade in which more efficient users of the resource are able to purchase rights from less efficient users. Such trade fully compensates the sellers." While this is a reasonable summary of the efficiency arguments in favor of IFQs, it does not provide a basis for concluding that no individual harvesters are made worse off.

There are at least two ways in which individual harvesters can be made worse off under an IFQ program. First, it is not feasible to ensure that the original distribution of quota among harvesters matches their actual participation in the fishery. For example, a standard procedure is to base quota share allocations on catch history over some historic period. If a participant's harvest was unusually low during all or part of that period he may not receive sufficient quota to leave him as well off as before. Similarly, if the catch history period is not fairly recent, a large proportion of the quota shares may go to individuals no longer active in the fishery rather than to those currently active (see, for example, North Pacific Fishery Management Council 2002, Appendix 2-7, page 8). Second, the assumption that the price of quota will fully compensate the sellers depends on the implicit assumption that the market for quotas is perfectly competitive, which need not be the case (Anderson 1991).

It should be noted that similar issues could arise in a program involving the allocation of individual processor quotas. The allocation of the quotas might not reflect an individual processor's actual participation in the fishery, for example if a facility was incapacitated during part of the historic period used to determine shares. And fisheries with a small number of processing firms, or a few large and many small firms, are particularly susceptible to market imperfections that might prevent the price of a quota from fully compensating the seller.

Thus the Pareto safe concept is not of much practical help in evaluating the effects of fishery rationalization programs at the individual participant level. Matulich and his co-authors in fact rarely refer to applying the Pareto safe concept at this level, but instead focus on Pareto safety at the level of the aggregate harvesting and processing sectors. In

particular, as noted above in section 3, they suggest that a rationalization policy is unlikely to be adopted if it would create uncompensated losses for the processing sector.

Matulich, Mittelhammer and Reberte (1996, page 126) speculate that a Pareto safe allocation might be obtained under a "symmetrical rights distribution" and suggest, "Candidates worthy of consideration include (i) a split of harvest quota shares between fishers and processors; (ii) a "two-pie" allocation, in which catching rights are awarded to fishers and processing rights are awarded to processors; and (iii) full-utilization quota shares...."

Matulich and Sever (1999) investigate the properties of the first two of these proposals, referring to the first one as a "one-pie split allocation." They first consider the application of the one- and two-pie allocations to a fishery that is perfectly competitive and conclude that neither type of allocation is capable of providing policy feasible Pareto safe outcomes. They then consider the application of these allocations to a bilateral monopoly, after asserting that the BSAI inshore pollock fishery "appears to emulate bilateral monopoly" (page 212). The one-pie allocation is again concluded to not be capable of providing policy feasible Pareto safe outcomes. However, they claim to prove that the two-pie system would be Pareto safe not only at the aggregate level but also at the level of individual participants. The validity of this remarkable claim is discussed in the following section.

5. Two-Pie Allocations and Pareto Safety

Matulich and Sever's alleged proof that a two-pie allocation would be Pareto safe in a bilateral monopoly is based on a series of dubious assumptions. The first is their assumption that the bilateral monopoly would be able to negotiate an ex vessel price that maximized joint profits under conditions of a race for fish, but would be unable to negotiate rationalization measures that would end the race for fish and thereby increase the potential joint profits. No explanation is given for this assumed constraint on the bilateral monopoly's ability to maximize joint profits. Instead it is simply implicitly assumed that the race for fish can be ended only by an externally imposed rationalization program.

In their analysis of the two-pie allocation, efficiency is assumed to be attained through quota trading, and to be independent of the bargained ex vessel price. In particular, they note that the ex vessel price might be outside of the Pareto safe range. However, they argue that the actual price will fall within the Pareto safe range because (page 214):

> *"While the efficient price does not guarantee Pareto safety, intrinsic bargaining behavior should, provided the bargaining association is responsive to the well being of its entire membership. Bargaining agents have internal incentives to negotiate a price that not only maximizes joint profits (efficiency) but also leaves no member worse off. ...at least one Pareto-safe price exists – the open access exvessel price, P^0...As long as*

the parties desire to reach a Pareto-safe agreement, they can do so by settling on a rent share that implies P^0 as the ex vessel price. Thus, there are no functional impediments to achieving an efficient price that is also Pareto safe."

Matulich and Sever then use the Nash (1953) bargaining solution concept to indicate how the rent shares might be determined, given that "the bargaining agents are assumed to act so as to leave no member worse off under ITQs relative to open access" (page 214). Thus solution of the Nash model does not form part of the proof, but instead is performed under the assumption that the price must fall with the Pareto safe range.

In short, their "proof" really just consists of the assumption that bargaining agents will want and be able to set prices that are Pareto safe for all their members. This assumption is merely asserted, rather than derived from economic theory, and is unlikely to be satisfied in a real-world fishery, in which each side would contain possibly large numbers of heterogeneous participants. It is not obvious, and Matulich and Sever do not suggest, how such a difficult principal-agent problem in each sector could be structured so that the agent is constrained to leave no member worse off.

Even if it is assumed for the sake of argument that both sides of the bilateral monopoly desire agreements that are Pareto safe as among their own members, a Pareto safe price need not be the outcome of the bilateral monopoly negotiation. This can be demonstrated using a Nash bargaining model with the outside options for both sides correctly specified.

To determine the outside option for the harvester sector of the bilateral monopoly, consider what its alternative would be if it did not reach an agreement with the processor sector. Because it would have IFQs it could harvest the fish, but the processor sector could simply refuse to process the harvest. Therefore the outside option for the harvester sector is zero rent. Similarly, the harvester sector could threaten to not fish, so that the outside option for the processor sector is also zero rent, assuming that it has no processor controlled vessels. With these outside options, there is no reason to assume that the bargaining outcome would be Pareto safe. And if the processor sector does have processor controlled vessels, the outcome could be very unfavorable for harvesters, as shown in Halvorsen, Khalil, and Lawarrée (2000).

To summarize, Matulich and Sever's claim that they have provided a proof that a two-pie allocation would be Pareto safe under bilateral monopoly is invalid, and there is no other market structure for which this claim has even been made. Therefore, no credence should be given to claims that a two-pie system is a "policy-superior initial allocation of rights" (Matulich, Mittelhammer and Reberte 1996, page 112). Instead, the inclusion of IPQs in a fishery rationalization program should be viewed as simply one possible mechanism for enhancing outcomes for processors, bearing in mind that the possible outcomes under IPQs have received very little credible economic analysis and are untested by experience in any real-world fishery.

Evaluations of the appropriateness of allocating IPQs as part of a specific rationalization program should include (i) an assessment of whether compensation for processors is desirable, given the characteristics of the specific fishery, in particular the balance of bargaining power, and (ii) the relative merits of IPQs versus other possible compensation programs, given the characteristics of the specific fishery.

Accordingly, it is desirable that regional councils have flexibility in deciding whether, and how, processors should be compensated for possible losses arising from a fishery rationalization program. Therefore, I recommend that the national standards for fishery conservation and management not require that IPQs or other specific compensation mechanisms be included in future fishery management plans and regulations.

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ERRATA to Bering Sea Crab Rationalization Program Alternatives - Initial Review

Allocations of Shares to Catcher/Processors

Two tables contain errors concerning the number of catcher/processors that would receive allocations under the different allocation options. The following table replaces Table3.4-2 in the analysis. The original table undercounted the number of catcher/processors that would receive processing shares, instead showing the number of companies owning catcher processors that would receive shares.

Fishery/Option	*Total allocation of processing shares to catcher/processors*	*Number of catcher/processors receiving processing shares*
Bering Sea Opilio		
Option 1 - 1997 - 1999 (Three year average)	0.069	12
Option 2 - 1996 - 2000 (Best of 4 seasons)	0.070	14
Bristol Bay Red King Crab		
Option 1 -1997 - 1999 (Three year average)	0.081	11
Option 2 - 1996 - 2000 (Best of 4 seasons)	0.079	11
Bering Sea Bairdi (EBS Tanner Crab)		
Option 1 - 1997 - 1999 (50/50 combination of BBRKC and opilio	0.075	12
Pribilof Red King Crab		
Option 1 -1996 - 1998 (Three year average)	0.000	0
Pribilof Blue King Crab		
Option 1 -1996 - 1998 (Three year average)	0.000	0
St. Matthew Blue King Crab		
Option 1 - 1996 - 1998 (Three year average)	*	3
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab		
Option 1 - 1996/1997, 1997/1998, & 1998/1999 (Three year average)	*	2
Option 2 - 1996 - 1998 (Best of 4 season)	*	3
Western Aleutian Islands (Adak) Golden King Crab		
Option 1 - 1996/1997, 1997/1998, & 1998/1999 (Three year average)	*	3
Option 2 - 1996 - 1998 (Best of 4 season)	*	3

* Withheld due to confidentiality requirements.
Source: NPFMC Crab Database 2001 - Version 1

Table 3.4-2. Allocation of processing shares to catcher/processors.

The following table replaces Table 3.4-14 in the analysis. The original table undercounted the number of catcher/processors that would receive catcher/processor shares.

Fishery/Option	Number of Vessels Qualified for Catcher/Processor Shares
Bering Sea Opilio	
Option 1A -1994 - 1999 (Best 5 seasons)	13
Option 2A - 1992 - 1999 (Best 7 seasons)	13
Option 3A -1995 - 1999 (All seasons)	12
Option 3B - 1995 - 1999 (Best 4 seasons)	12
Option 4A -1996 - 2000 (Best 4 seasons)	12
Bristol Bay Red King Crab	
Option 1A -1993 - 1999 (All seasons)	12
Option 1B - 1992 - 1999 (Best 4 seasons)	12
Option 2A -1993 - 1999 (All seasons)	12
Option 2B - 1992 - 1999 (Best 5 seasons)	12
Option 3A -1996 - 2000 (Best 4 seasons)	9
Bering Sea Bairdi (EBS Tanner Crab)	
Option 1A -1992 - 1996 (All seasons)	12
Option 1B - 1992 - 1996 (Best 4 seasons)	12
Option 2A -1991-1992 - 1996 (Best 5 seasons)	12
Pribilof Red King Crab	
Option 1A -1993 - 1998 (Best 4 seasons)	2
Option 2A -1994 - 1998 (All seasons)	0
Option 2B - 1994 - 1998 (Drop one season)	0
Pribilof Blue King Crab	
Option 1A -1993 - 1998 (Best 4 seasons)	1
St. Matthew Blue King Crab	
Option 1A -1993 - 1998 (Best 4 seasons)	5
Option 2A - 1994 - 1998 (All seasons)	5
Option 2B - 1994 - 1998 (Drop one season)	5
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab	
Option 1A -1992-1993 to 1998-1999 (All seasons)	1
Option 1B -1992-1993 to 1998-1999 (Drop one season)	1
Option 2A -1995-1996 to 1998-1999 (All seasons)	0
Option 2B -1995-1996 to 1998-1999 (Drop one season)	0
Option 3A -1996-1997 to 1998-1999 (All seasons)	0
Option 3B -1996-1997 to 1998-1999 (Drop one season)	0
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	1
Western Aleutian Islands (Adak) Golden King Crab	
Option 1A -1992-1993 to 1998-1999 (All seasons)	3
Option 1B -1992-1993 to 1998-1999 (Drop one season)	3
Option 2A -1995-1996 to 1998-1999 (All seasons)	1
Option 2B -1995-1996 to 1998-1999 (Drop one season)	1
Option 3A -1996-1997 to 1998-1999 (All seasons)	1
Option 3B -1996-1997 to 1998-1999 (Drop one season)	1
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	1
GHL Split EAI (Dutch Harbor)/WAI (Adak) Golden King Crab	
Option 1A -1992-1993 to 1998-1999 (All seasons)	3
Option 1B -1992-1993 to 1998-1999 (Drop one season)	3
Option 2A -1995-1996 to 1998-1999 (All seasons)	1
Option 2B -1995-1996 to 1998-1999 (Drop one season)	1
Option 3A -1996-1997 to 1998-1999 (All seasons)	1
Option 3B -1996-1997 to 1998-1999 (Drop one season)	1
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	1
Western Aleutian Islands (Adak) Red King Crab	
Option 1A -1992 - 1996 (All seasons)	2
Option 1B -1992 - 1996 (Best 2 seasons)	2

Analysis of AFA Processor Sideboards

The following table should be substituted for Table 3.10-9. This table is updated for a calculation error for Option 2 qualifying years and also includes the allocations of processing shares to AFA processors under the option with catcher/processors receive "catcher/processor shares" instead of processing shares.

Since most catcher/processors are not affiliated with AFA members, under the option in which catcher/processors receive "catcher/processor shares", allocations to AFA processors are higher. In the Bering Sea *C. opilio* fishery AFA processors would receive slightly smaller allocations under Option 2 than under Option 1. Under both options their total allocations slightly exceed the total of the AFA sideboard caps. In the Bristol Bay red king crab fishery, the allocations to AFA processors under Option 2 are also slightly less than the allocations under Option 1.

Only under the allocation option with catcher/processor shares would the allocation to AFA processors exceed the AFA sideboard cap. In the Bering Sea *C. bairdi* and the Pribilof blue king crab fishery, the allocations to AFA processors would exceed the sideboard cap under both the option with catcher/processor shares and the option without catcher processor shares. On the other hand, the allocation to AFA processors in the Pribilof red king crab fishery is less under than the sideboard caps under both the option with catcher/processor shares and the option without catcher/processor shares.

In the St. Matthew blue king crab fishery and both of the Aleutian Islands golden king crab fisheries, only the allocations with catcher/processors receiving processing shares can be shown (to protect the confidentiality of the few catcher/processors participating these fisheries). In the Western Aleutian Islands golden king crab fishery, the allocation to AFA processors is approximately 20 percent less than the AFA sideboard cap. This is likely a result of substantial catcher/processor activity in this fishery. In the Eastern Aleutian Islands golden king crab fishery, the allocation to AFA processors is less than 2 percent more than the cap under either of the qualifying year options, while in the St. Matthew blue king crab fishery the allocation to AFA processors is approximately 3 percent less than the AFA sideboard cap.

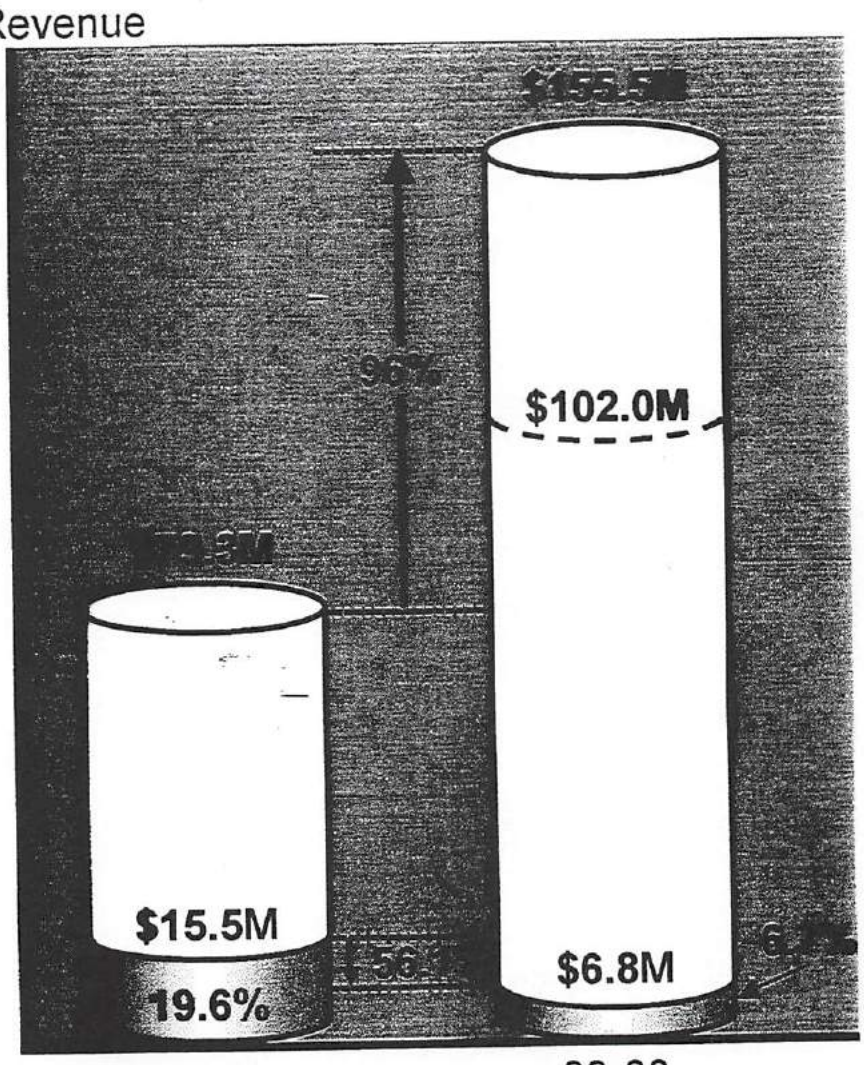
Table 3.10-9. AFA and non-AFA split of processing allocations by fishery

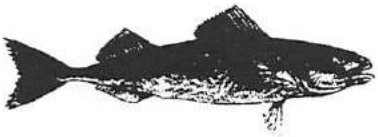
	Allocation with catcher/processors receiving catcher/processor shares		*Allocation with catcher/processors receiving processing shares*		*AFA Sideboards*
Fishery/Option	*Non AFA Processors*	*AFA Processors*	*Non AFA Processors*	*AFA Processors*	
Bering Sea Opilio					
Option 1 - 1997 - 1999 (Three year average)	0.286	0.714	0.322	0.678	0.653
Option 2 - 1996 - 2000 (Best 4 seasons)	0.297	0.703	0.333	0.667	
Bristol Bay Red King Crab					
Option 1 -1997 - 1999 (Three year average)	0.209	0.791	0.238	0.762	0.781
Option 2 - 1996 - 2000 (Best 4 seasons)	0.233	0.767	0.260	0.740	
Bering Sea Bairdi (EBS Tanner Crab)					
Option 1 - 1997 - 1999 (50/50 combination of BBRKC and opilio	0.248	0.752	0.280	0.720	0.688
Pribilof Red King Crab					
Option 1 -1996 - 1998 (Three year average)	0.317	0.683	0.317	0.683	0.781
Pribilof Blue King Crab					
Option 1 -1996 - 1998 (Three year average)	0.293	0.707	0.293	0.707	0.641
St. Matthew Blue King Crab					
Option 1 - 1996 - 1998 (Three year average)	*	*	0.392	0.608	0.641
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab					
Option 1 - 1996/1997, 1997/1998, & 1998/1999 (Three year average)	*	*	0.486	0.514	0.496
Option 2 - 1996 - 2000 (Best 4 seasons)	*	*	0.494	0.506	
Western Aleutian Islands (Adak) Golden King Crab					
Option 1 - 1996/1997, 1997/1998, & 1998/1999 (Three year average)	*	*	0.681	0.319	0.496
Option 2 - 1996 - 2000 (Best 4 seasons)	*	*	0.670	0.330	

* Withheld due to confidentiality requirements.
Source: NPFMC Crab Database 2001 - Version 1

82% of Processors Lost Retained Revenues

Matulich Presentation C-5





97% of Processors Lost Retained Revenues

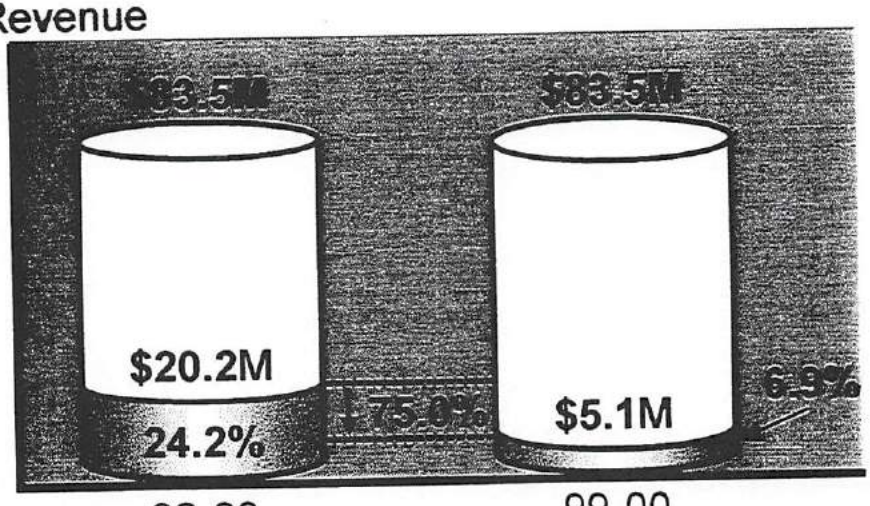
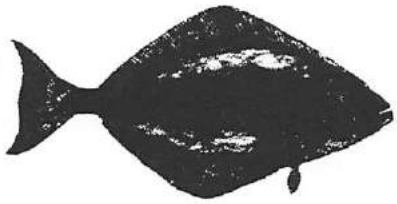
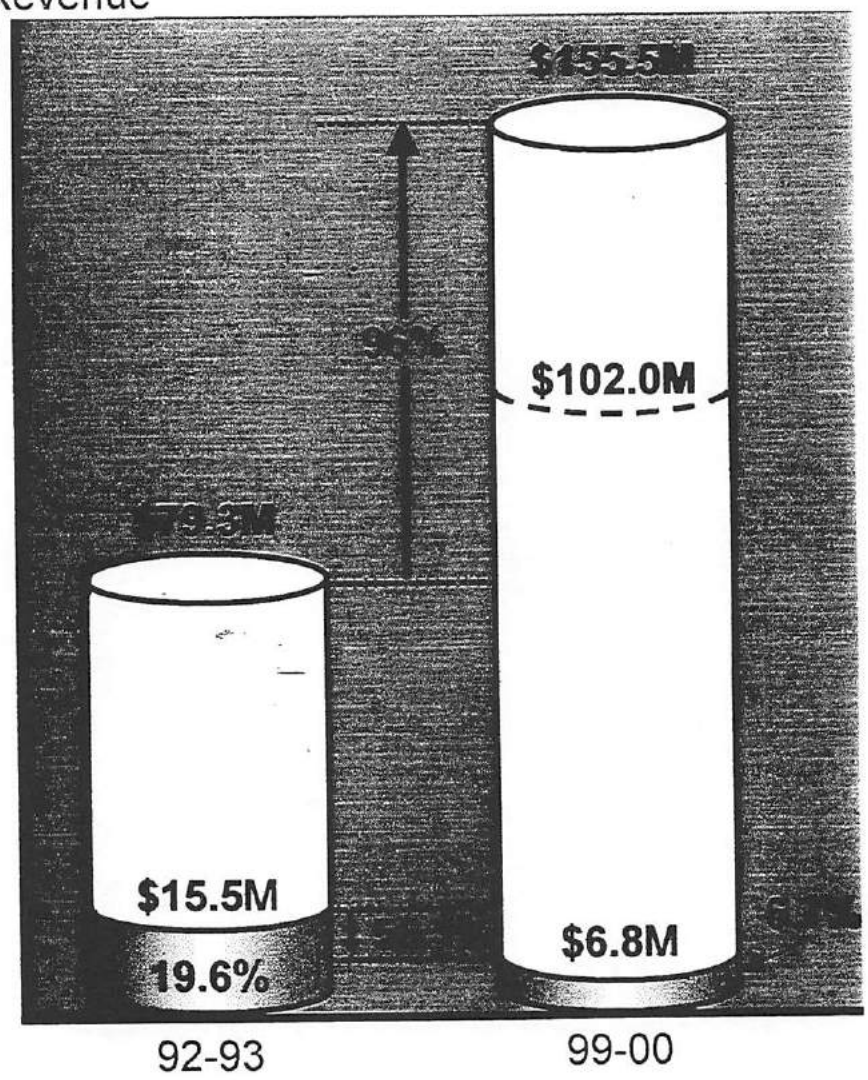
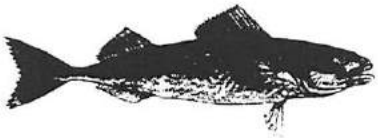


Figure 2. Changes in Industry-Wide Total Revenue Before and After Alaska Halibut and Sablefish IFQs: Impacts on Processors' Gross Operating Margins.



82% of Processors Lost Retained Revenues





97% of Processors Lost Retained Revenues

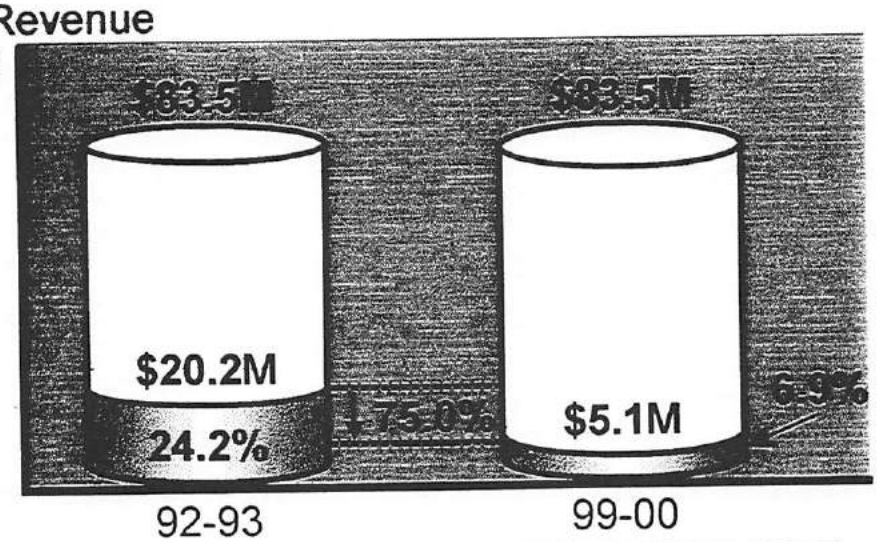


Figure 2. Changes in Industry-Wide Total Revenue Before and After Alaska Halibut and Sablefish IFQs: Impacts on Processors' Gross Operating Margins.

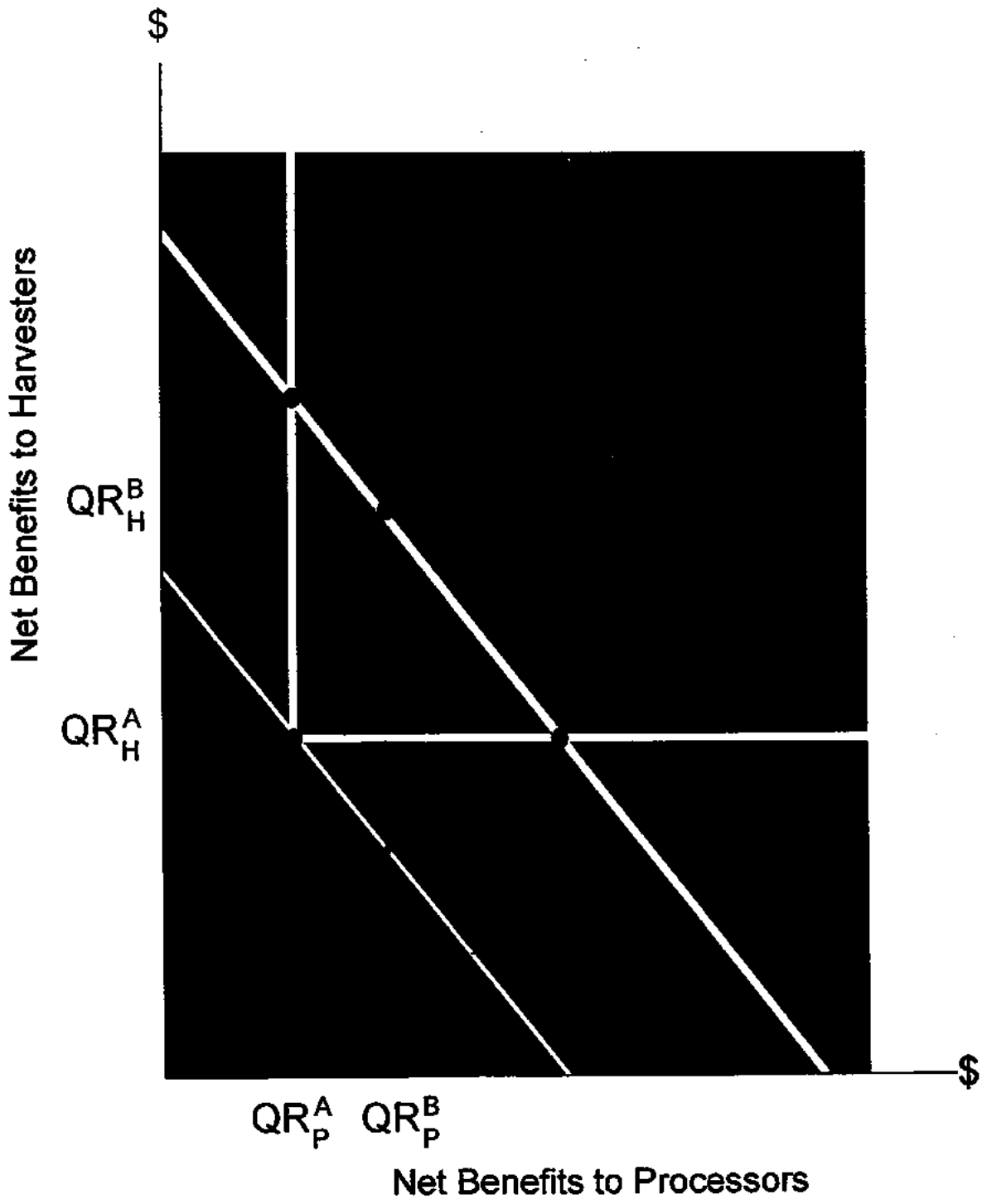


Figure 1. Potential Efficiency and Distributional Impacts of Rationalization Policy Design

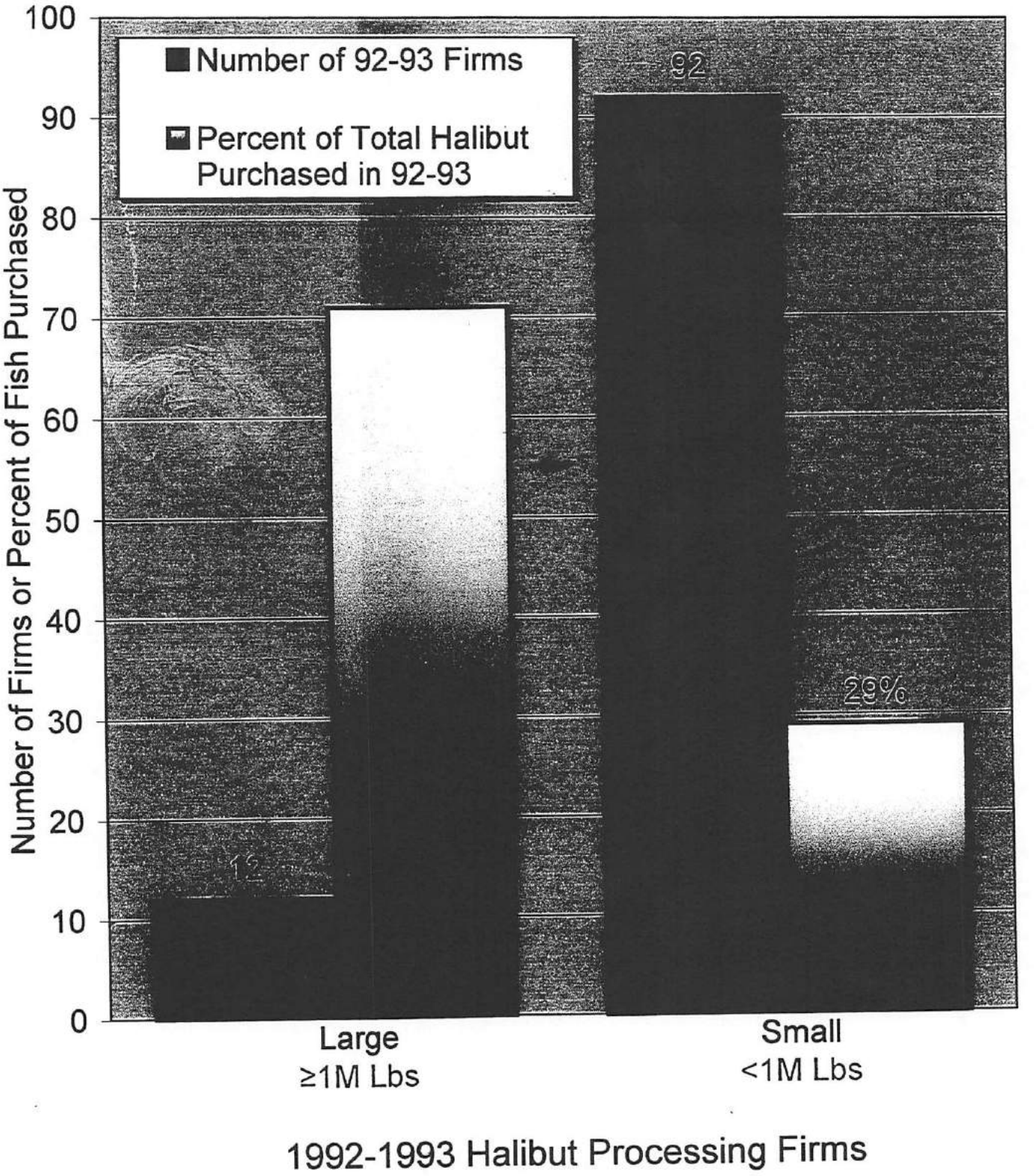


Figure 3. 1992-1993 Market Share of Halibut Processing Firms

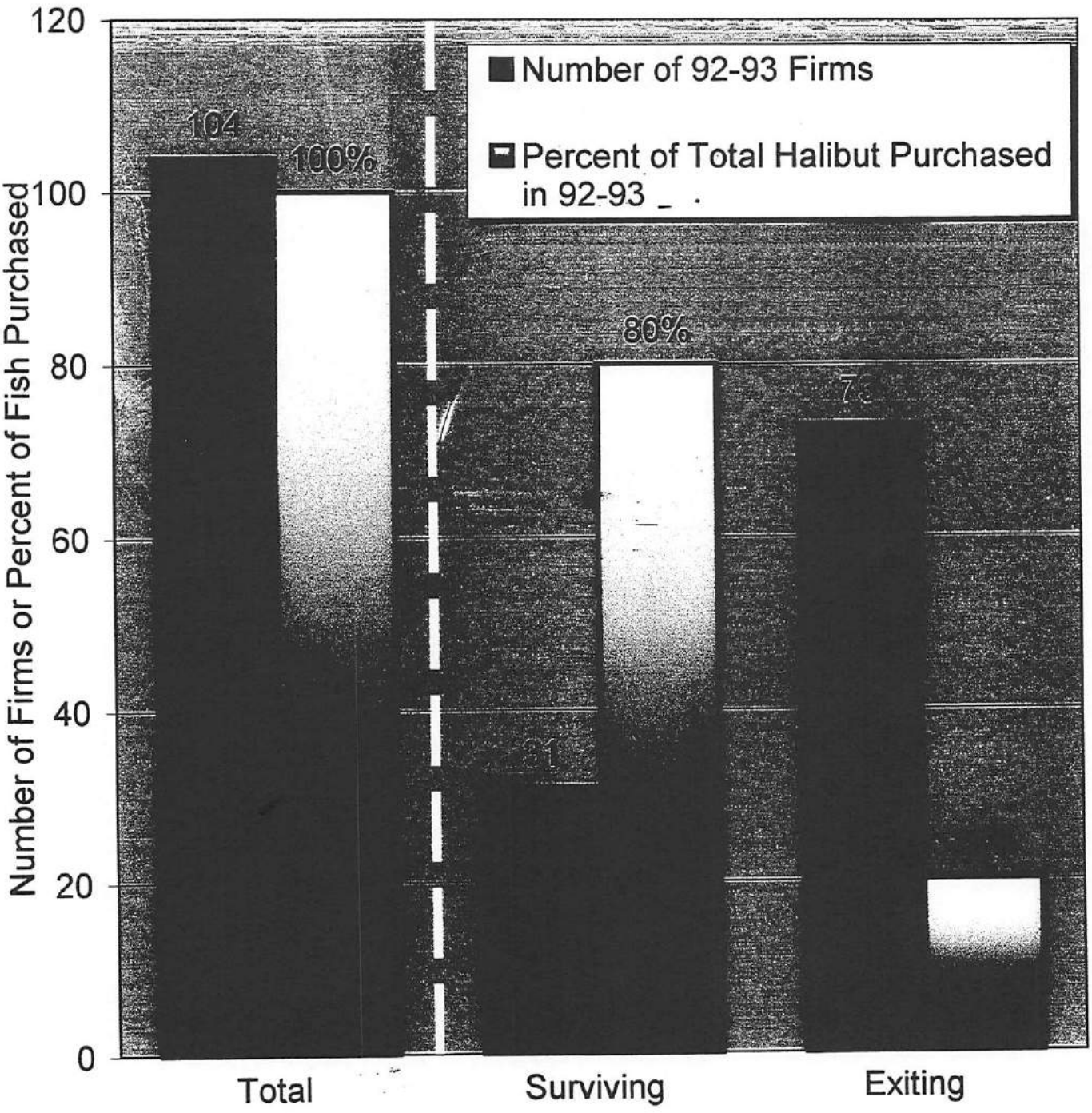


Figure 4. 1992-1993 Market Share of Surviving and Exiting Halibut Processing Firms

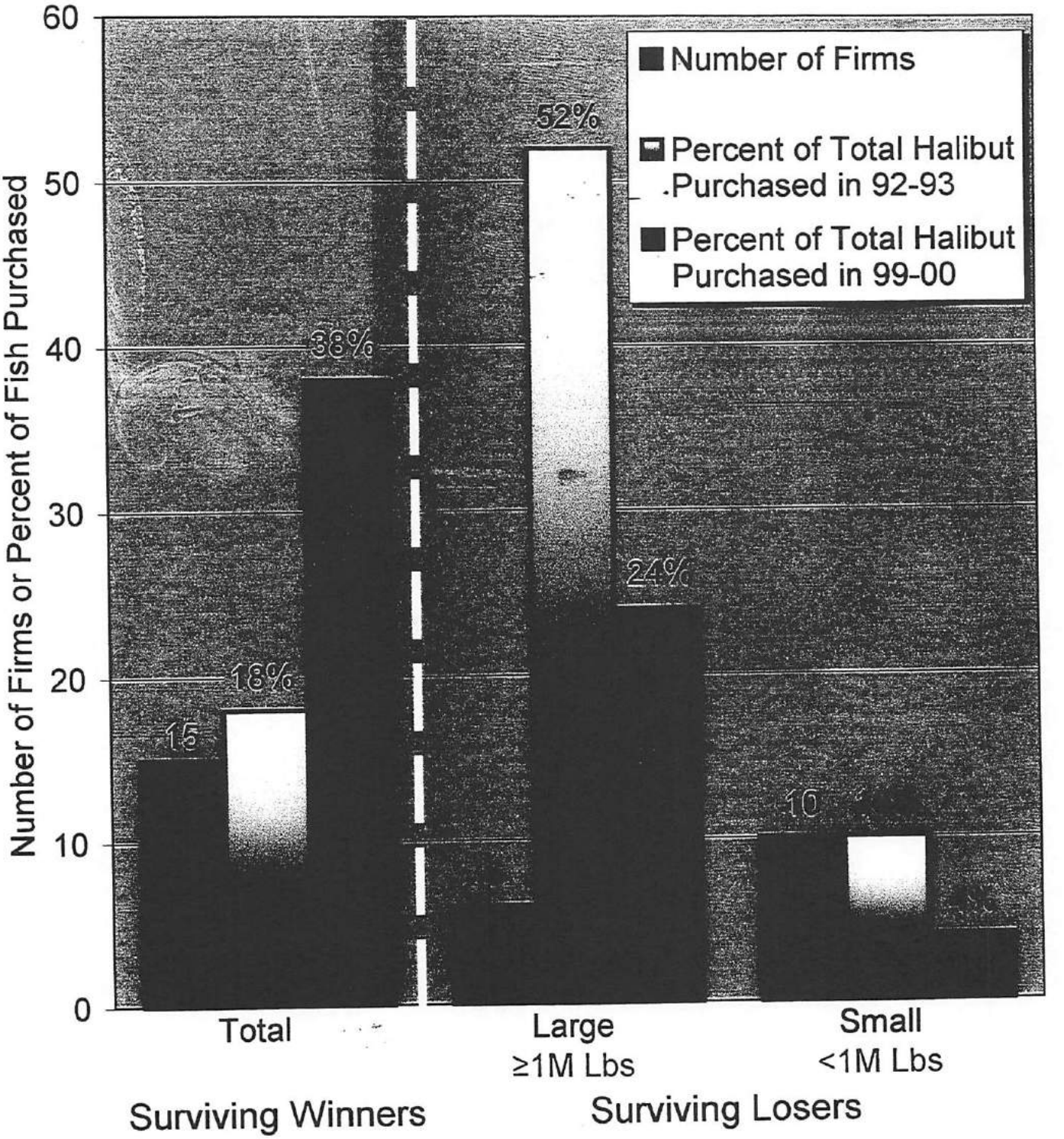


Figure 5. Market Share Changes for Surviving Halibut Processing Firms

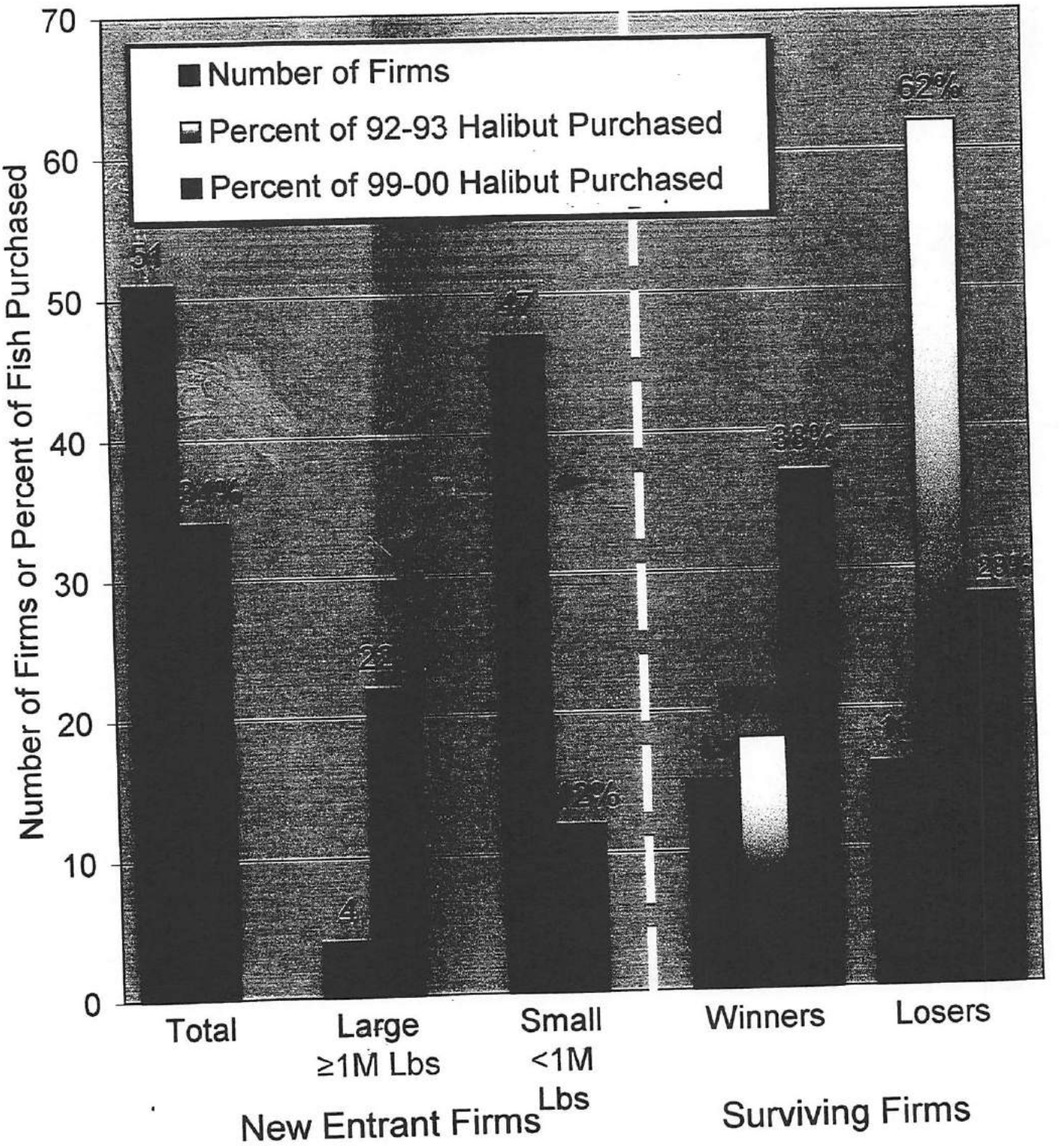


Figure 6. Composite Market Share Changes in the Halibut Processing Sector by 1999-2000

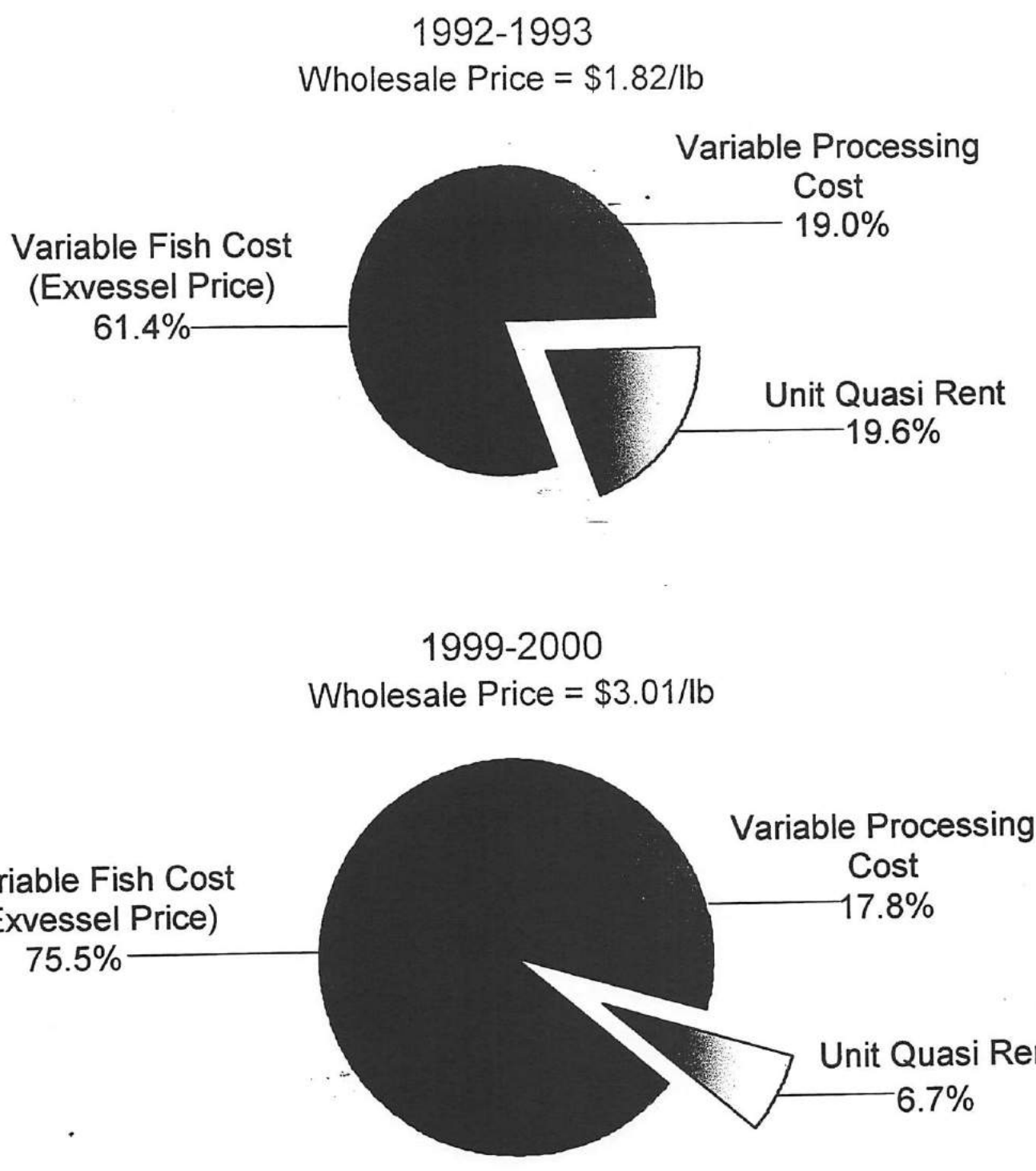


Figure 7. Unit Quasi Rents, Variable Processing Cost and Fish Cost as Share of Halibut Wholesale Price

P16

XVP more than doubled in [illegible]

WP ↑ $1.14/lb — 465%

EXVP ↑ $1.17/lb — ↑

Quant ↑ [illegible] TRT 9½

44 → 231

$ 1.12 → $ 229

Proc.VQR $.36/# → .26/# — ↓ 1/3

Halibut

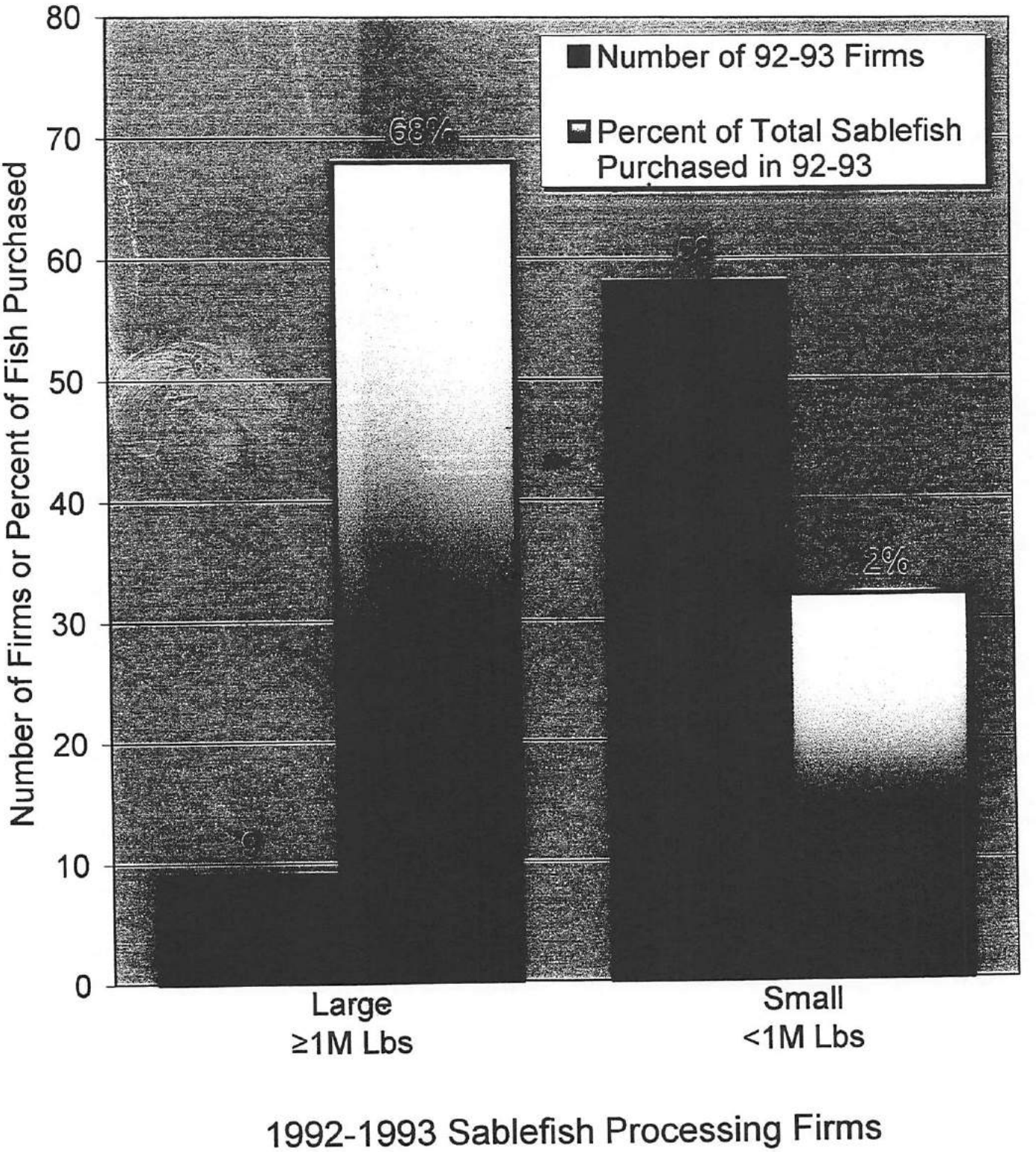


Figure 8. 1992-1993 Market Share of Sablefish Processing Firms

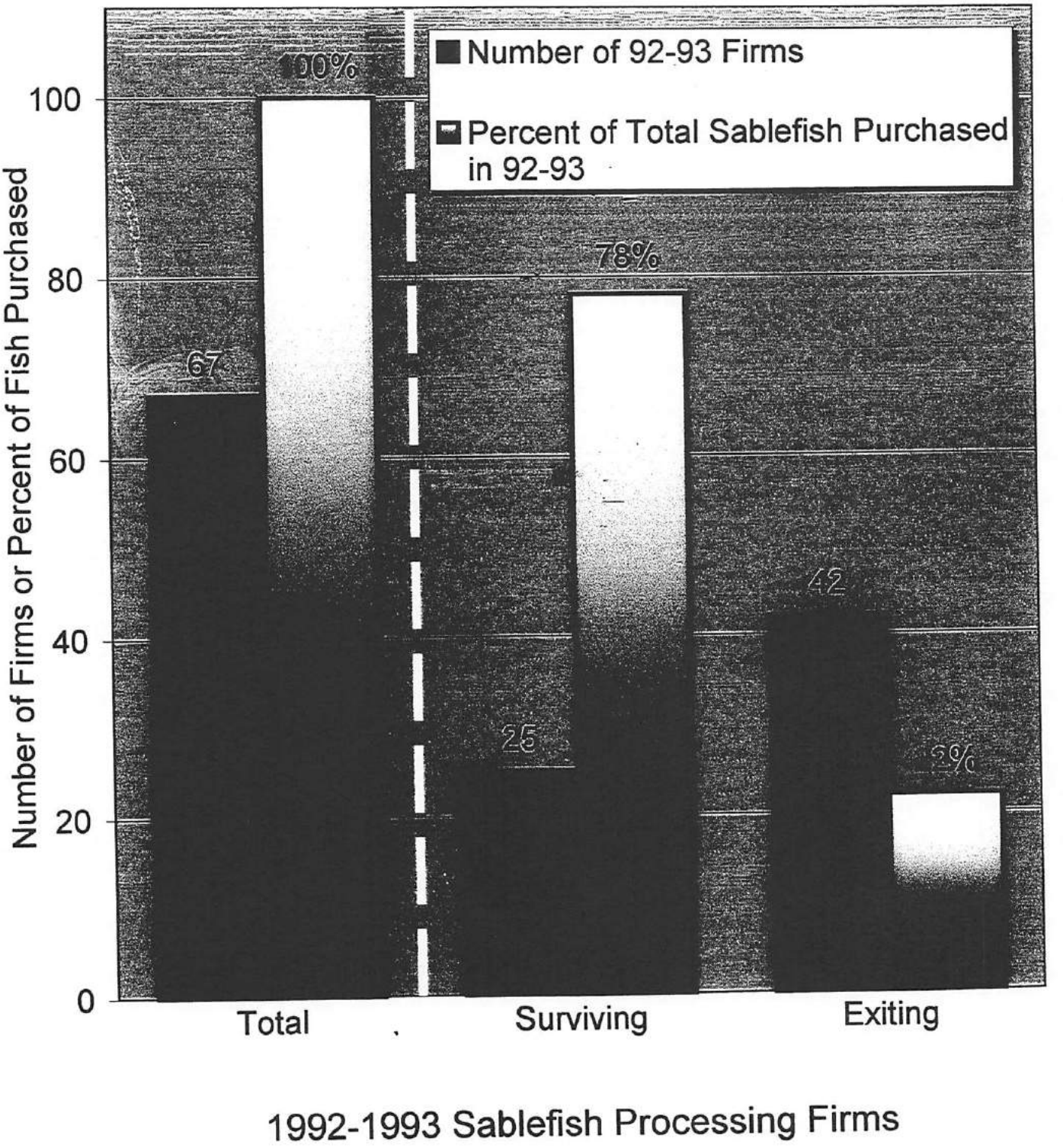


Figure 9. 1992-1993 Market Share of Surviving and Exiting Sablefish Processing Firms

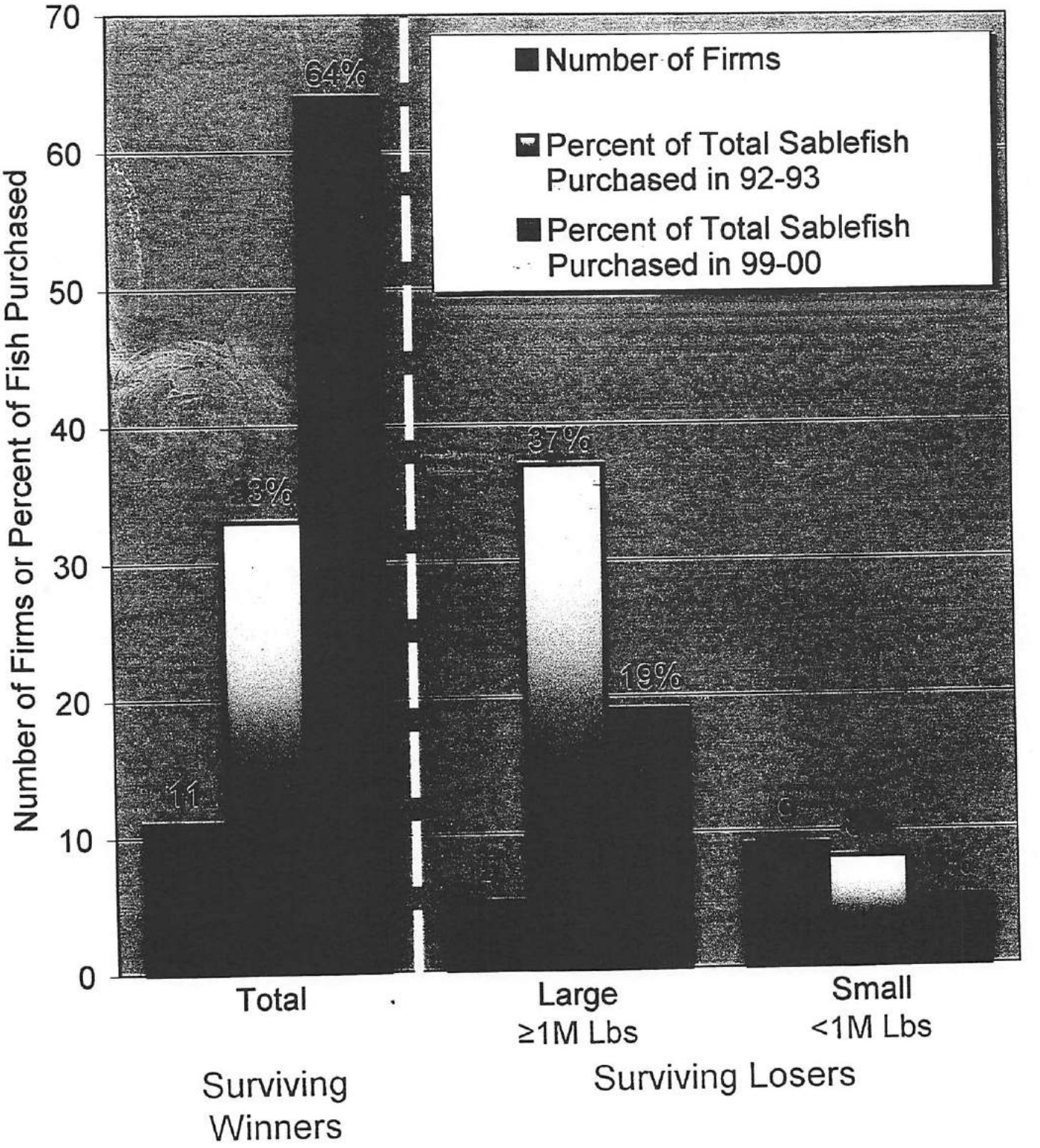
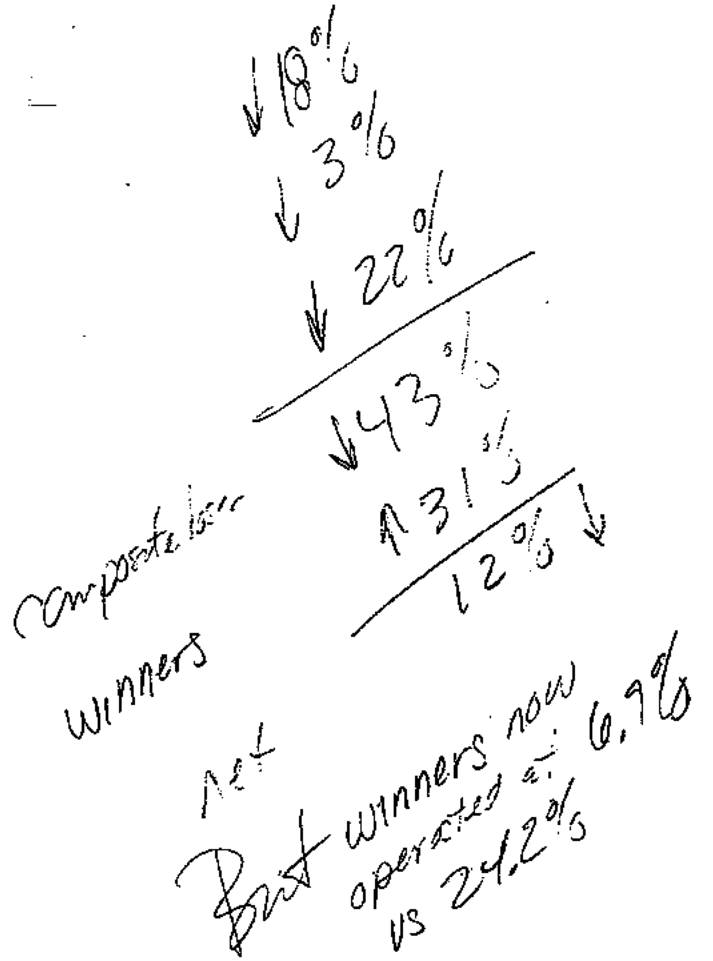


Figure 10. Market Share Changes for Surviving Sablefish Processing Firms


↓18%
↓3%
↓22%
↓43%
Competitors
Winners
43%
12% ↓
Net
Best winners now operated at 6.9%
vs 24.2%

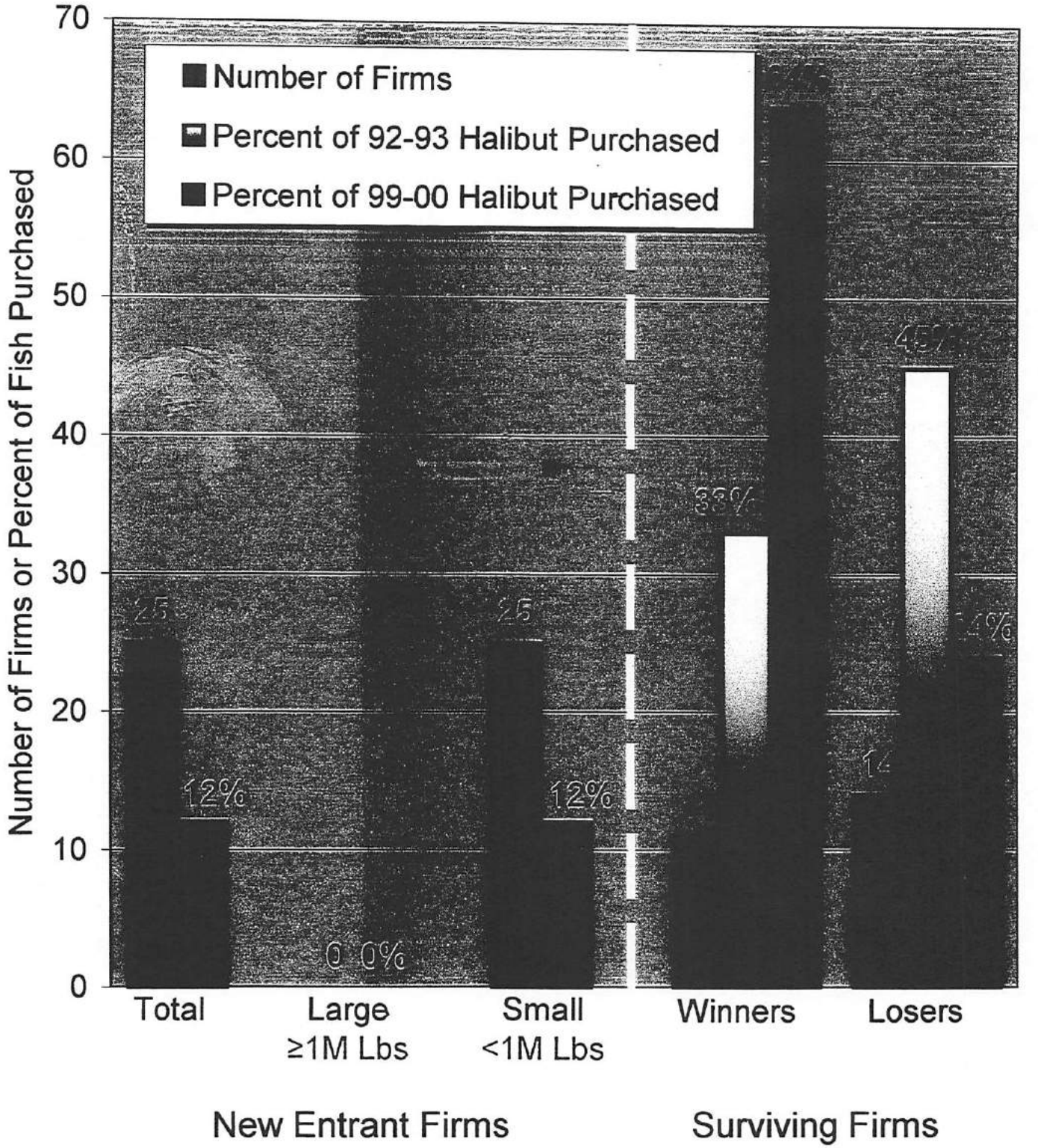


Figure 11. Composite Market Share Changes in the Sablefish Processing Sector by 1999-2000

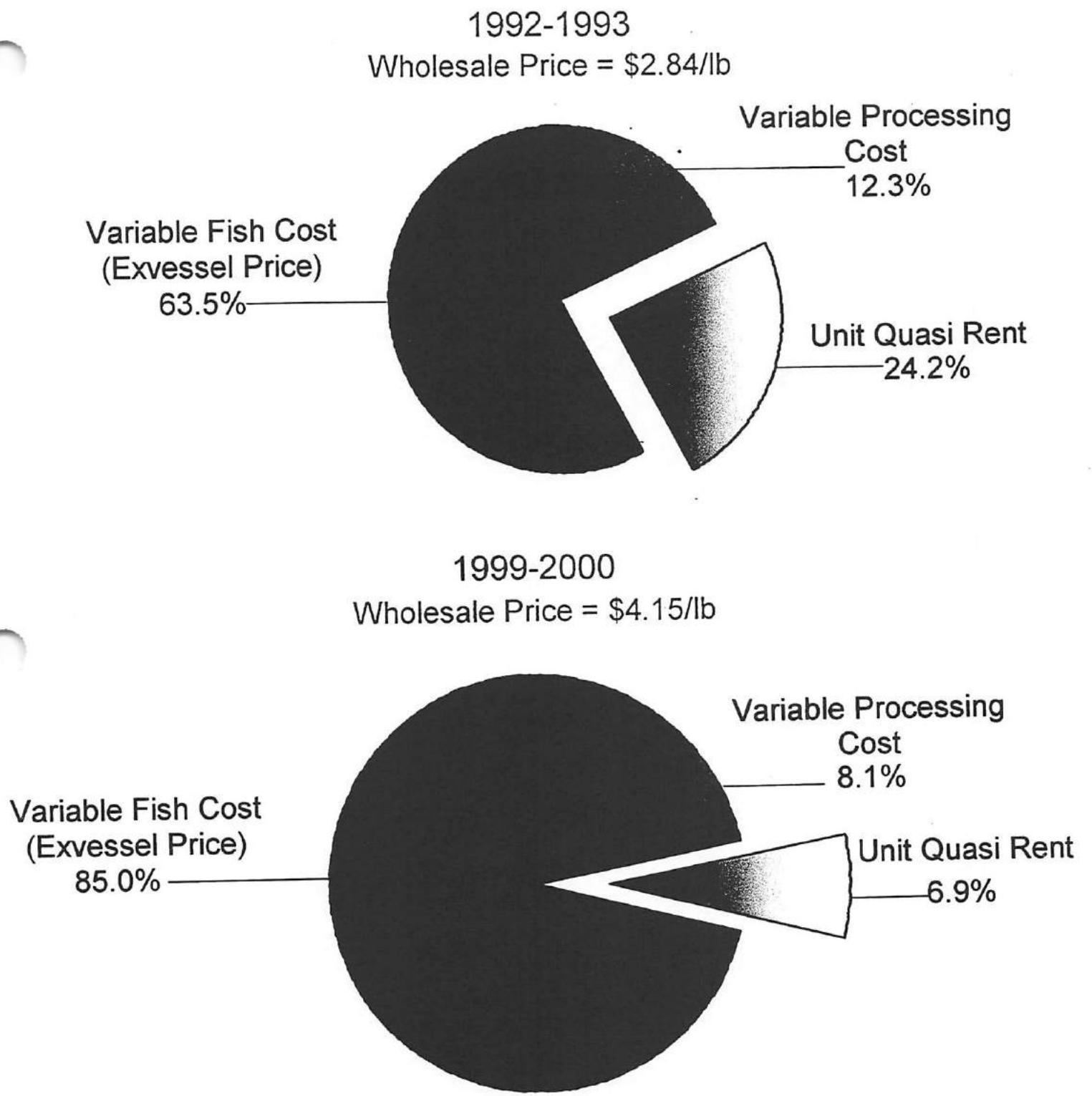


Figure 12. Unit Quasi Rents, Variable Processing Cost and Fish Cost as Share of Sablefish Wholesale Price

SABLE

EXVP $1.81 → $3.52/# ↑95%

WP $2.84 → $4.15/# ↑46%

~~UP~~

VPC $0.34 → $0.34

UQR $.69 → .25/~~#~~ ↓71.4%

↑ $1.74

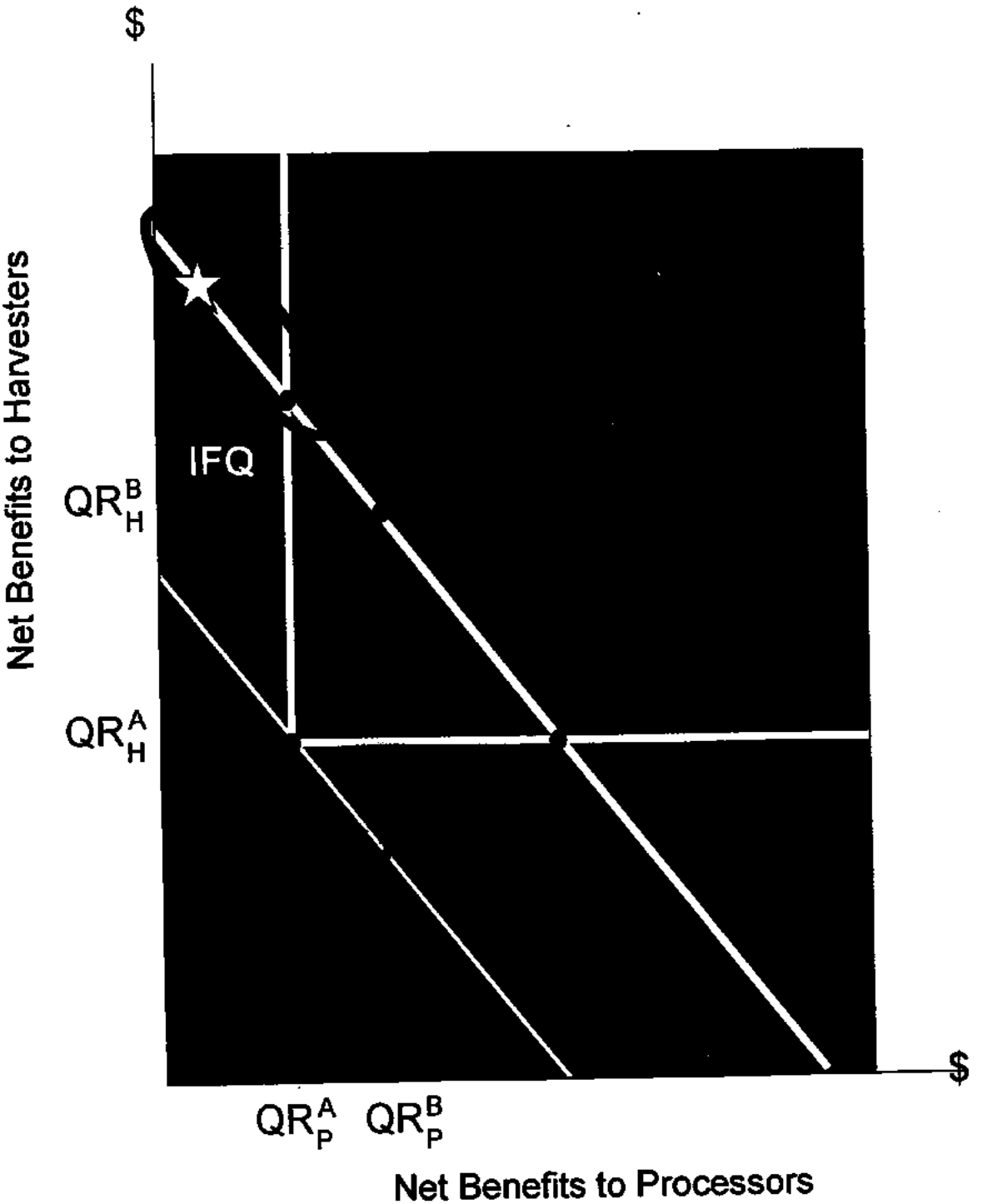


Figure 13. Efficiency and Distributional Impacts of IFQ Policy Design

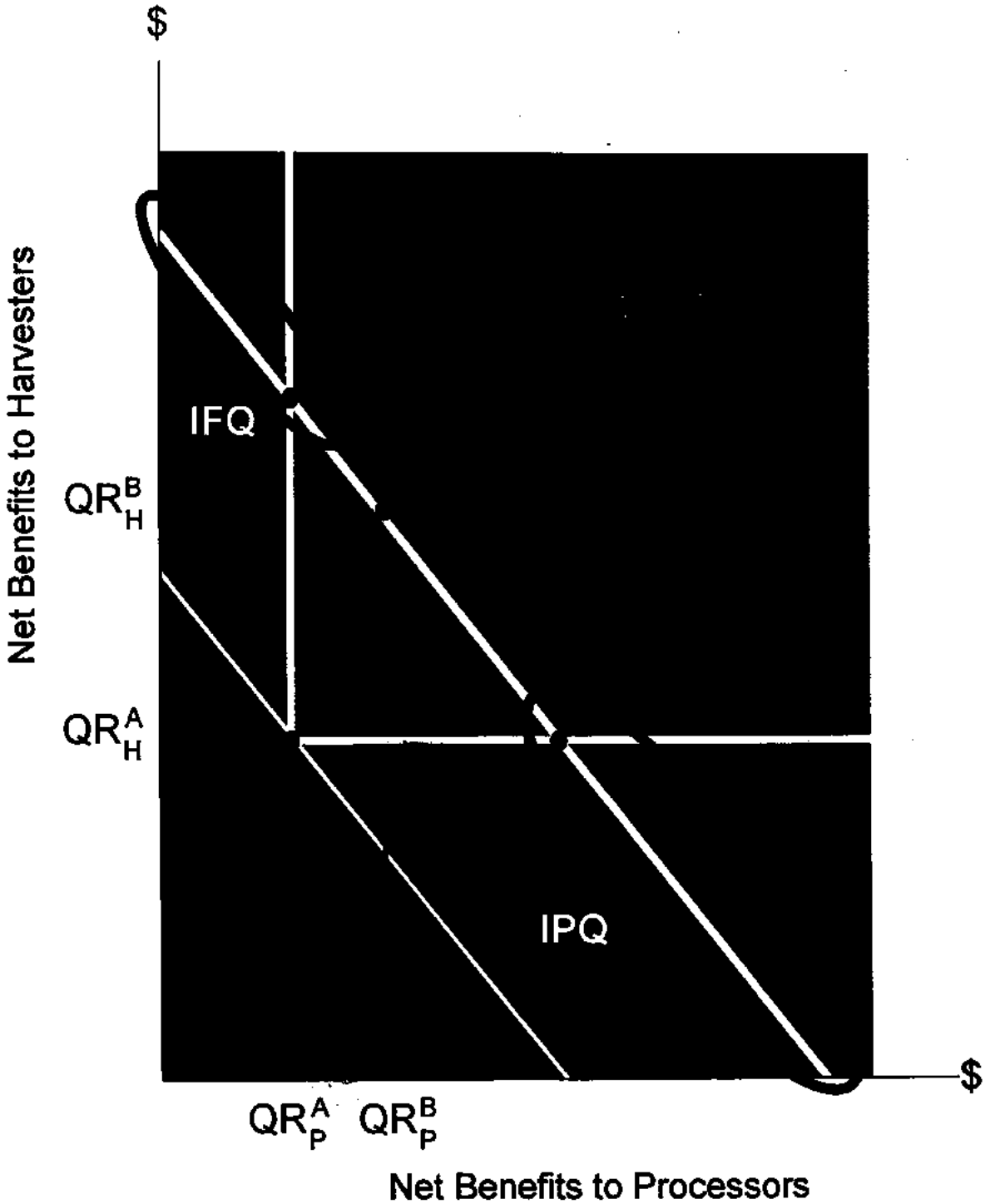


Figure 14. Efficiency and Distributional Impacts of Allocating Quota Only to One Sector (IFQ **or** IPQ)

Table 1. Comparison of Alternative Concentration Indexes for Pre-IFQ (1992-1993) Halibut and Sablefish Processing and for 1999-2000 Red King Crab and Opilio Crab Processing.

Concentration Index		Halibut		Sablefish		B.B. Red King Crab		Opilio Crab	
		1992	1993	1992	1993	1998	1999	1998	1999
C4	mean	**57.1**	**54.9**	**58.6**	**66.5**	**63.1**	**64.5**	**63.3**	**62.9**
	range	53.3-100	51.3-100	58.3-100	58.3-100	na	na	na	na
C8	mean	**77.4**	**76.9**	**81.9**	**88.6**	**93.7**	**93.1**	**90.9**	**89.4**
	range	71.9-100	77.1-100	70.8-100	87.3-100	na	na	na	na
HHI	mean	**1101**	**1026**	**1367**	**1464**	**1307**	**1381**	**1333**	**1378**
	range	892-3677	864-5128	876-9420	1157-5123	na	na	na	na

C-5

North Pacific Crab Association
4335 Leary Way NW
Seattle, WA 98107

April 8, 2002

Bering Sea Crab
Processor Cost and Revenue Information

Fisheries cost and revenue information is relevant to the crab rationalization discussion for several reasons. Historical information sheds light on the relative positions of the various sectors from a financial perspective. The data derived from activities post rationalization can assist the Council and the public in reviewing whether the goals of the program have been achieved, and can be useful in making adjustments as needed to refine the program.

Obtaining accurate cost and revenue data can be difficult, time consuming and expensive. Much of the data is highly sensitive and treating it in a manner to preserve confidentiality is important to the suppliers of data. Cost and revenue information can also easily be misunderstood or, when taken out of context, misused. It is therefore critical that the Council provide an appropriate collection, collation and filtering system to address legitimate concerns about the dissemination and use of the data.

The processing sector understands that cost and revenue information will be a component to a rationalization program that includes the processing sector. The processing companies involved in the NPCA volunteered at the February, 2002 NPFMC meeting to provide cost and revenue information to ensure that the Council has the tools it needs to structure, and adjust, a rationalization program for the BSAI crab fishery.

In order to provide a glimpse into the process to gather and collate such data, and to provide the Council with some preliminary, though not complete, data to use in its deliberation, the processors elected to voluntarily provide summary cost and revenue information.

Procedure:

Facilitated by the North Pacific Crab Association, six processing firms engaged in the BSAI crab fisheries supplied a neutral CPA firm (Moss Adams LLC) with detailed variable cost and revenue information for the Bristol Bay red king crab and Opilio fisheries. Moss Adams in turn compiled the data, accomplished a conversion of revenue and cost information to a harvest year basis, with all data provided in an FOB Alaska format.

Moss Adams was selected to compile the data because it is auditor for most of the firms involved, and could therefore easily review the data for accuracy. Data from other sources were subjected to a review for accuracy, but were necessarily limited in scope and number to achieve an initial data submission for the April Council meeting. Not all firms were invited to participate at this stage because of the need to limit the amount and

scope of data considering our goal of providing some information to the Council at the April, 2002 meeting. For these reasons, the six firms selected, and only those firms, were requested to provide data.

Each participating firm was provided an identical working sheet and set of instructions to supply the data requested. The data was to be provided for each year 1996 through 2000, a period of both large and small harvests, separated by species. The firms posed questions for the categorization of cost or revenue data; in this way we were able to address common problems to ensure that the participating firms treated information consistently.

Revenues to be reported included all revenues from FOB the point of sale, net of commissions paid to independent brokers or sales agents. Consequently, the reported revenues include sales FOB plant and sales FOB other points such as Seattle. It includes the sale of production as produced in Alaska and sales of repacked or re-graded product. Moss Adams was able to calculate an FOB Alaska sales amount by subtracting from these revenues the amount of freight of product to the sales point, and cold storage, handling and repacking costs incurred by the processor. With the exception of a very small amount of product, all production was sold the year of harvest; the small amount of inventory not sold at year-end was reported based on the average sales value achieved during the year.

Costs reported were variable costs only; those costs included any cost that varied based upon the quantity of production. It excluded any costs that were fixed or unaffected by volume. Examples of costs that were excluded are salaried personnel, depreciation, costs of financing, any overhead costs, sales expenses, repair and maintenance expenses and the like. These costs were excluded because such costs must be allocated by activity, and it would be an arbitrary assignment of such costs to a particular fishery activity.

The data reported to you states costs netted back to those incurred FOB Alaska to correspond to the FOB Alaska revenues also reported. Thus, for example, the costs of freight of production to the point of sale, cold storage and handling and cost of repacking are excluded from the calculations.

The difference between variable costs and revenues amount to the contribution to the processor for non-variable costs, overhead and profits, and are sometimes called the "quasi-rents" derived from the fishery. They do not by themselves imply a profit (or a loss) for the processor.

Processing Costs and Revenues Worksheet

Company Name _____

Production Facility Name _____

Species (Circle One) **Opilio** **Bristol Bay Red King Crab**

Year of Production _____ **(one sheet for each year, 1996-2000)**

Location of production (circle one) **Islands** **Dutch**

Pounds Purchased _____

Finished Pounds _____

Revenues _____ **(total dollars received)**

Are revenues stated on a FOB-plant basis, C&F, both or other basis?

Variable costs (see notes for definitions):

Payments to fishermen _____

Taxes paid by processor for raw crab purchases _____

Custom processing fees you paid _____

Direct Labor costs _____

Observer costs (including transportation) _____

Utility costs (including fuel) _____

Housing, transportation and food _____

Packaging materials and supplies _____

Freight of production _____

Storage and handling of production _____

Cost of repacking _____

DO NOT INCLUDE ANY FIXED OR OVERHEAD COSTS IN THESE COST CATEGORIES.

Notes to Cost of Production Worksheet:

Variable costs are direct costs that vary with both season length and volume of production.

If you had product custom processed by another plant, include the revenues from the sale of production and report the custom processing fees you paid on the appropriate line.

If you custom processed product for someone else, exclude the variable costs and the revenues associated with that production.

Revenues should include all receipts from the sale of finished products, including products repacked by you or for your account after initial production. Revenues should be net of any brokerage fees paid to any independent broker making the sale on your behalf.

Direct labor costs EXCLUDES management or salaried labor, but includes all costs of processing labor, such as employer taxes, employer paid insurance, 401k contributions of employer in addition to the wages paid. The insurance costs should include any insurance related to direct labor; health (if any) insurance, worker's compensation or Jones Act coverage, including payment of deductibles or claims if self insured.

Utility costs include public or privately supplied utilities, including fuel, water, power, and sewer.

Housing, transportation and food category should include any expenses incurred for processing labor not listed in the labor category. It may include for example employer supplied special clothing, airfares, medical costs paid by the employer but not covered by insurance.

Packaging materials and supplies should include fiber, banding materials, shrink-wrap, pallets, labels and anything else required to enclose and ship the finished product. This category should also report the cost of shipping packaging to the plant. Processing expendables of any sort are included in this category.

Freight of production. This should be zero if you reported sales on an FOB plant basis. If you reported sales from a different delivery point, the cost of freight and handling to that delivery point should be reported here. For example, sales that are FOB Seattle would include the freight from the plant to Seattle, and the cost of that freight would be reported on this line.

Storage and handling of production should include cold storage and handling costs incurred by you prior to sale.

Costs of repacking should include all charges associated with repacking crab that are sold by you after repacking.

NORTH PACIFIC CRAB ASSOCIATION

BERING SEA OPILIO CRAB
CATCHER VESSEL COSTS AND REVENUES
AND
BERING SEA RED KING CRAB
CATCHER VESSEL COSTS AND REVENUES

HARVEST YEARS
2000, 1999, 1998, 1997, 1996

North Pacific Crab Association
Bering Sea Opilio Catcher Vessel Costs and Revenues
Harvest Periods ending December 31, 1996, 1997, 1998, 1999 and 2000

	1996	1997	1998	1999	2000	Total
Annual Harvest in Pounds	64,363,158	117,179,683	240,433,650	182,678,507	30,258,170	634,913,168
Percentage of Annual Harvest Represented	3.28%	3.26%	3.26%	3.85%	3.18%	3.43%
Revenues per Delivered Pound	$1.29	$0.76	$0.56	$0.95	$1.85	$0.85
Total Variable Costs as a Percentage of Total Revenues	48%	51%	54%	49%	49%	50%
Total Variable Costs per Delivered Pound	$0.62	$0.38	$0.30	$0.46	$0.90	$0.43

North Pacific Crab Association
Bristol Bay Red King Crab Catcher Vessel Costs and Revenues
Harvest Periods ending December 31, 1996, 1997, 1998, 1999 and 2000

	1996	1997	1998	1999	2000	Total
Annual Harvest in Pounds	8,319,611	8,720,403	14,120,487	10,949,856	7,468,240	49,578,597
Percentage of Annual Harvest Represented	4.66%	4.29%	6.54%	7.05%	4.74%	5.67%
Revenues per Delivered Pound	$4.00	$3.25	$2.65	$6.77	$4.79	$4.18
Total Variable Costs as a Percentage of Total Revenues	46%	54%	47%	44%	48%	46%
Total Variable Costs per Delivered Pound	$1.82	$1.74	$1.25	$2.73	$2.29	$1.93

Crab Harvesting Vessel
Cost and Revenue Worksheet

Vessel Name _____

Species (Circle One) **Opilio** **Bristol Bay Red King Crab**

Year of Harvest _____ **(one sheet for each year, 1996-2000)**

AFA qualified? **Yes** **No** **(Circle One)**

Pounds Sold _____

Revenues _____ **(total gross amount)**

Variable Costs (See Notes For Definition)

Fuel, oil, hydraulic fluids _____

Insurance _____

Crew costs _____

Bait _____

Gear Expenses _____

Fisheries related taxes _____

Observer costs _____

Miscellaneous _____

Notes:

INCLUDE VARIABLE COSTS ONLY. DO NOT INCLUDE ANY FIXED COSTS IN THE COST DATA.

Fuel should include fuel from the beginning of the voyage to its termination, regardless of the origination and destination port. It should be the same fuel expense used to calculate the net revenues for crew share calculation.

Insurance costs are included only if they are specifically for the crab fishery. If Hull and Machinery is paid on a year round basis, for example, do not include it. If it is

bought month to month, and crab fishing is the only activity for the month, then include the cost. P&I should be reported here on the same basis as Hull and Machinery.

Crew costs should include crew share, airfares (if paid by the boat owner), food (if paid by the boat owner), and any gear provided for the crew (if paid by the boat owner).

Gear expenses include any expendables used during the season, including any amount for pot loss.

Fisheries related taxes would be the line for any taxes deducted directly from the gross receipts of the vessel. Sales tax and ASMI tax are two examples.

Observer costs should include travel, insurance, food, etc, plus the cost of the observer.

Miscellaneous costs are any variable costs not captured by the specific categories listed. Examples might include port and harbor charges. Do not include pot storage costs, but do include the cost of transporting pots to and from storage for the season.

NORTH PACIFIC CRAB ASSOCIATION

ACCOUNTANT'S REVIEW REPORT
and
BERING SEA OPILIO CRAB PROCESSING COSTS AND REVENUES AND BRISTOL BAY RED KING CRAB PROCESSING COSTS AND REVENUES

HARVEST PERIODS ENDED DECEMBER 31, 2000, 1999, 1998, 1997 AND 1996

ACCOUNTANT'S REVIEW REPORT

To the Directors
North Pacific Crab Association

We have reviewed the accompanying schedules of Bering Sea Opilio Crab Processing Costs and Revenues and Bristol Bay Red King Crab Processing Costs and Revenues of members of the North Pacific Crab Association for each of the five harvest periods ended December 31, 2000, 1999, 1998, 1997, and 1996. Management of the participating members indicated in Note 1 is responsible for the schedules.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. A review is substantially less in scope than an examination, the objective of which is the expression of an opinion on the schedules of crab revenues and costs. Accordingly, we do not express such an opinion.

Based on our review, nothing came to our attention that caused us to believe that the accompanying schedules of Bering Sea Opilio Crab Processing Costs and Revenues and Bristol Bay Red King Crab Processing Costs and Revenues are not presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America.

Moss Adams LLP

Seattle, Washington
April 5, 2002

NORTH PACIFIC CRAB ASSOCIATION
BERING SEA OPILIO CRAB PROCESSING COSTS AND REVENUES
HARVEST PERIODS ENDED DECEMBER 31, 2000, 1999, 1998, 1997 AND 1996

	1996	1997	1998	1999	2000	Total
Annual Harvest in Pounds	64,363,158	117,179,683	240,433,650	182,678,507	30,258,170	634,913,168
% of Annual Harvest Represented	30%	36%	41%	41%	43%	39%
Revenues Per Finished Pound	$ 3.44	$ 2.38	$ 2.14	$ 2.97	$ 4.55	$ 2.66
Payment to Fishermen Per Finished Pound	$ 2.14	$ 1.25	$ 0.89	$ 1.59	$ 2.90	$ 1.37
Payment to Fishermen as a Percentage of Total Revenues	62%	53%	42%	53%	64%	51%
Other Variable Costs Per Finished Pound	$ 0.73	$ 0.55	$ 0.44	$ 0.48	$ 0.79	$ 0.52
Other Variable Costs as a Percentage of Total Revenues	21%	23%	21%	16%	17%	19%
Total Variable Cost Including Fish Cost Per Finished Pound	$ 2.87	$ 1.80	$ 1.34	$ 2.07	$ 3.69	$ 1.88
Total Variable Costs Including Fish Cost as a Percentage of Revenues	84%	75%	62%	70%	81%	71%

See accountant's review report and accompanying notes.

NORTH PACIFIC CRAB ASSOCIATION
BRISTOL BAY RED KING CRAB PROCESSING COSTS AND REVENUES
HARVEST PERIODS ENDED DECEMBER 31, 2000, 1999, 1998, 1997 AND 1996

	1996	1997	1998	1999	2000	Total
Annual Harvest in Pounds	8,319,611	8,720,403	14,120,487	10,949,856	7,468,240	49,578,597
% of Annual Harvest Represented	40%	34%	40%	37%	40%	38%
Revenues Per Finished Pound	$ 8.30	$ 6.46	$ 5.65	$ 11.59	$ 9.12	$ 8.04
Payment to Fishermen Per Finished Pound	$ 6.21	$ 5.04	$ 4.29	$ 9.80	$ 7.45	$ 6.40
Payment to Fishermen as a Percentage of Total Revenues	75%	78%	76%	85%	82%	80%
Other Variable Costs Per Finished Pound	$ 0.75	$ 0.67	$ 0.69	$ 0.97	$ 0.88	$ 0.79
Other Variable Costs as a Percentage of Total Revenues	9%	10%	12%	8%	10%	10%
Total Variable Cost Including Fish Cost Per Finished Pound	$ 6.96	$ 5.71	$ 4.98	$ 10.77	$ 8.33	$ 7.19
Total Variable Costs Including Fish Cost as a Percentage of Revenues	84%	88%	88%	93%	91%	89%

See accountant's review report and accompanying notes.

Note 1 - North Pacific Crab Association

The North Pacific Crab Association (the Association) is a non-profit organization formed to promote the interest of Alaskan crab processors. The schedules of crab processing costs and revenues of the Association have been prepared based on information provided by members of the Association and include; Icicle Seafoods, Inc., Westward Seafoods, Inc., Norquest Seafoods, Inc., Unisea, Inc., Yardarm Knot, Inc., and Snopac Products, Inc.

Note 2 - Basis of Presentation

Harvest Period - Amounts reported in the accompanying schedules are reported on the harvest period basis, which is defined as the operating cycle in which the product was harvested and processed.

Bering Sea Opilio Crab - Amounts presented for opilio crab include activities of the members in the Pribilof Islands and Dutch Harbor, Alaska.

Bristol Bay Red King Crab - Amounts presented for king crab include activities of the members in Dutch Harbor, Alaska.

Processing Costs - Variable processing costs include production costs, exclusive of raw product costs, on a FOB Alaska basis and therefore, do not include any costs to transport the product to market or cold storage related costs.

Finished Pounds - Finished pound calculations are based upon the actual finished pounds of production of the participating members.

Annual Harvest - Amounts reported for the "Annual Harvest" are derived from the initial review draft of the "Bering Sea Crab Rationalization Program Alternatives Report" (March 2002, pages 88-89, tables 2.3-1 and 2.3-2), prepared by the North Pacific Fishery Management Council.

C-5
Mark Maring

NORTHLAND FISHERIES, INC.

130 Nickerson St. Suite 212
Seattle, WA 98109
(206)285-5100
Fax (206)285-9054

1-25-02

Mr. David Benton
Chairman
North Pacific Council
P O. Box 20735
Juneau, Alaska 99802

Dear Mr. Benton:

I sent a letter to you on November 25th, 2001 outlining our position regarding the BSAI crab fishery rationalization process. I intended to give public testimony during the last North Pacific Council meeting in reference to the letter I sent, but was unable to attend due to a family member matter.

I will be at the next council meeting and would like to bring these matter back to your attention prior to the council meeting. Along with this letter I have included for your review the letter I had sent on 11-15-01. If you have any comments or questions prior to the council meeting I would appreciate either a phone call or e-mail regarding any issues you might have. I will be in my office all next week and would appreciate the opportunity to speak to you by phone, I have included my numbers so you can contact me with a time when we could speak. My e-mail address is mmaring@polmarfisheries.com, office number (206)285-5100 and fax (206)285-9054.

Best Regards,

Mark F. Maring
President

NORTHLAND FISHERIES, INC.

130 Nickerson St. Suite 212
Seattle, WA 98109
(206)285-5100
Fax (206)285-9054

11-25-01

Mr. David Benton
Chairman
North Pacific Council
P.O. Box 20735
Juneau, Alaska 99802

Dear Mr. Benton:

I am addressing this letter to you regarding the current proposals that address and outline which processors will be awarded the opportunity to continue to participate in future BSAI crab fisheries once rationalization has been implemented. The structure envisioned by the options under consideration, at least those of which I am aware and have had the opportunity to read and review to date, appears to seriously discount any consideration of the contributions of past participants and focuses the potential benefit almost entirely on current participation. As a continuous participant in the BSAI crab fishery since 1988, I find this highly inequitable. Additionally, due to the specific circumstances of our situation, the extremely narrow "eligibility" criteria of **only 1998 or 1999** would eliminate our company from having further participation in the crab fishery.

I would appreciate the ability to outline the history of our company and try to explain why we feel the Eligible Processors dates criteria used for the current proposals should be modified to either 1) expand slightly or, 2) allow hardship cases to be considered.

- We are in favor of and support most aspects of a program which will rationalize the

BSAI crab fishery. In fact, we have supported the concept since it was first discussed in 1992. However, when it takes a form that appears to specifically trivialize the contributions made by long term participants and will exclude the long term historical participants, in favor of newer entrants: it becomes difficult to support. I am hopeful that this is not the design or intentions and would like to work with other participants to reach a common ground which is more equitable for the greatest number of parties.

- The processing vessel Northland has been operating in the Alaskan crab fishery since 1978. The vessel not only processed crab but it also participated in the Salmon and Herring fisheries. We purchased the P/V Northland in 1988 and participated in the crab fishery every year through 1997. After the 1997 Opilio crab fishery we experienced a major mechanical problem with the main engine. It was determined that the engine could not be repaired and would have to be replaced. Cost estimates at that time were over $850,000.

- Simultaneous to this mechanical failure, one of the principal shareholders of the company filed a law suit. The suit prevented the company from operating until certain issues were resolved.

- These business matters were not resolved until the spring of 2000. This resolution now allows the company to be in a position to again utilize the P/V Northland.

As we all know the crab fishery has experienced a traumatic down turn since 1999. This major decline in the fishing stocks prompted the majority of the processors to tie up their floating processors. until there is improvement in the fishery. It made no financial sense for them to deploy a floating processor for such a marginal fishery. It made even less sense for us to engage in a significant and major repair expense to participate in the late 2000 or 2001 fishery.

The years that are being considered to determine future participation are 1998 or 1999. If you qualify under these terms there are a variety of options on what species and areas will be used to determine what percentage of the harvestable quota you might qualify to process. The current proposal implements a cut off date to determine qualifications. If you qualify, then you are able to go back three years as well as forward from the qualification years, to determine at what level you can participate in the future. If you go back to 1995 to determine the activity for the future years, our company participated in 1995,1996 and 1997 which is 1/2 of the entire period being considered.

- If we had not experienced the difficulty with the main engine after the 1997 crab fishery and had the problem compounded by the partner issue, we would have had continuous participation and at minimum would have participated in the 1998 crab fishery which would qualify us under the current proposal.

We missed this cut off date by One Season, after having been actively processing crab in

Alaska for the prior ten (10 years) from 1988 through 1997, not missing even one year during this time period. I feel that a company which has been active in the fishery for so many years, to be precluded from participating because of a circumstance which was out of our control is not a reasonable result or the intention of this public process.

As this process has slowly developed over the past decade and in particular as it appeared to have finally gained real momentum in the past couple of years we stayed in touch with industry members regarding these matters. I was always under the assumption that we should reasonably expect to be included in the processing sector. Especially in light of the fact that we only missed the proposed deadline by a single season and have been active longer than most floating processors currently working in Alaska today. Knowing that the final determination is going to be made soon, I want to bring this matter to the fore front to make sure we are included in this fishery for the future.

I would like to propose that you include the year 1997 in the qualification period or add in the qualification period a hardship consideration. I have a hard time believing that the intent of this process is to exclude long term participants.

In closing, I want to make sure that all parties know that we are not only involved with this processor but also have several crab catching vessels working in Alaska, all of whom have been there for many, many years. We rely on this fishery for our livelihood, as do multiples of families which we employ.

We are enthusiastic about what appears a real possibility of the rationalization process moving forward. After having been involved through the 1988, 1992 and 1995 attempts, it is sometimes easy to believe it will escape us again. We support its implementation this time and look forward to the sanity it may install for the prosecution of these fisheries.

I would like to extend my appreciation in advance for your consideration and understanding of our position regarding the matters I addressed above.

Best Regards,

Mark F. Maring

cc Mr. David Fluharty
cc Mr. Dennis Astin, Vice Chair
c Mr. John Bundy
c Stephanie Madsen

cc Mr. Robert Penney
cc Robin Samuelsen
cc Mr. Jim Balsiger

Bring Henkel
C/S

POSSIBLE CAP VALUES FOR C/P VESSEL'S

WESTERN ALEUTIAN BROWN CRAB AT 2000 WHOLESALE PRICE'S

GHL. OF 2,700,000 LBS. RECOVERY RATE = 0.58%

40%	626,400 LBS. FINISHED PRODUCT @ 7.22$ = 4,522,608$
30%	469,800 LBS. FINISHED PRODUCT @ 7.22$ = 3,391,956$
20%	313,200 LBS. FINISHED PRODUCT @ 7.22$ = 2,261,304$
10%	156,600 LBS. FINISHED PRODUCT @ 7.22$ = 1,130,652$

REVIEW DRAFT APPENDIX 2-3 on PAGE 2 - TABLE : 1

OPILIO - C/P :50,000,000 LB.PROJECTED GHL X 0.62% RECOVERY

8%	2,480,000 LBS. FROZEN SECTIONS @ 4.16$ = 10,316,800$
5%	1,550,000 LBS. FROZEN SECTIONS @ 4.16$ = 6,448,000$
1%	310,000 LBS. FROZEN SECTIONS @ 4.16$ = 1,289,600$

OPILIO - C/P :28,000,000 LB.PROJECTED GHL X 0.62% RECOVERY

8%	1,388,800 LBS. FROZEN SECTIONS @ 4.16$ = 5,777,408$
5%	868,000 LBS. FROZEN SECTIONS @ 4.16$ = 3,610,880$
1%	173,600 LBS. FROZEN SECTIONS @ 4.16$ = 722,176$

REVIEW DRAFT APPENDIX 2-3 on PAGE 2

POSSIBLE CAP VALUES FOR CATCHER VESSELS

PRICE'S REFLECT 2000/2001 ALUETIAN IS. BROWN CRAB EX-VESSEL PRICE

GHL EASTERN REGION = 3,000,000 LBS./ GHL WESTERN REGION = 2,700,000 LBS.

	EASTERN REGION	WESTERN REGION
40%	1,200,000 LBS. @ 3.50$ = 4,200,000$ /	1,080,000 LBS. @ 3.15$ = 3,402,000$
30%	900,000 LBS. @ 3.50$ = 3,150,000$ /	810,000 LBS. @ 3.15$ = 2,551,500$
20%	600,000 LBS. @ 3.50$ = 2,100,000$ /	540,000 LBS. @ 3.15$ = 1,701,000$
10%	300,000 LBS. @ 3.50$ = 1,050,000$ /	270,000 LBS. @ 3.15$ = 850,500$
	Review draft - page 102 and 103 Table: 2.5-1 and 2.5-2	
	Proposed ownership caps - Review draft - page 16 , 1.6`3	
%'s	2000 PRICES FOR OPILIO WITH A 50,000,000 LB. PROJECTED G.H.L.	
8%	4,000,000 LBS. @ 1.85$ = 7,400,000$	
5%	2,500,000 LBS. @ 1.85$ = 4,625,000$	
1%	500,000 LBS. @ 1.85$ = 925,000$	
	2000 PRICES FOR OPILIO WITH A 28,000,000 LB. PROJECTED G.H.L.	
8%	2,240,000 LBS. @ 1.85$ = 4,144,000$	
5%	1,400,000 LBS. @ 1.85$ = 2,590,000$	
1%	280,000 LBS. @ 1.85$ = 518,000$	
		Review Draft - page 102 / Table 2.5-1

Qualifying Year Options and the Initial Allocation.

To determine the initial allocation of QS first requires rules for determining eligibility for an allocation and rules for establishing the basis of those initial allocations. The next step in defining an initial allocation is to select qualifying years on which the allocation will be based. The Council motion includes several options for qualifying years for each fishery under consideration for rationalization. In this section, the initial distribution in each fishery is analyzed using each of the qualifying year options. To simplify the analysis, the options for each fishery are analyzed independently. The section concludes with a brief discussion of the overlapping participation in the different BSAI crab fisheries.

The analysis is conducted on a vessel basis. A more accurate estimate of the distribution would be based on ownership information. Ownership data, however, are unavailable for this analysis. To determine eligibility to receive an initial allocation the analysts considered the activity of each vessel individually. In addition, the distributions are estimated based on the activity of individual vessels. So, 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 creates some exceptions to the LLP requirements that would entitle some persons to LLP licenses that do not meet these requirements. For example, in certain instances replacement vessels could be used to meet the LLP requirements. Records concerning the qualification of persons under the Amendment 10 exceptions to the LLP requirements are not yet available, so currently, the most complete analysis is based on activities of single vessels. In addition, the suboption that would allow vessel substitution for determining an allocation applies only to transfers of LLP licenses. Application of this suboption might allow some persons to base their distributions on the history of a vessel other than the one creating the right to the LLP. Graphs are used to illustrate the allocations under the different options for qualification years for each fishery. To protect confidentiality, the allocations are shown in groups of 4 vessels[21], with vessel groupings made in a 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 group is the average allocation to members of that group. The allocation is shown in pounds, applying the total catch from the most recent year in the fishery to the share allocations. The harvests from that season are also shown using the same grouping method to allow comparison of the allocations with the current fishing activity. Each legend shows the total number of vessels that would receive an allocation under each option and the number of vessels that fished in the comparison season. Because allocations are averages it is possible that the largest allocation to a single vessel in a group is significantly different from the average of the four vessels, particularly in the groupings of the largest allocations in the fisheries with the fewest participants. In fisheries with either few options or few vessels receiving allocations, bar graphs are used to show the allocations. Unfortunately, these graphs are difficult to read in fisheries where the number of persons receiving allocations and the number of options are relatively large. Histograms are used to show the initial allocations in place of the bar graphs in those fisheries. In addition to the graphs, a table is presented which shows the average of the four largest allocations, the mean allocation, and the median allocation under each option.[22]

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[21]It should be noted that these allocations are based on vessels and not vessel owners. Therefore, persons that own more than one vessel could be included in more than one of the histograms. These levels cannot be used to determine caps.

[22] 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.

The Bering Sea *C. Opilio* Fishery.

The Council motion includes the following qualifying year options for the distribution of QS in the Bering Sea *C. opilio* fishery:

1.4.2.1 Opilio (EBS snow crab)
Option 1. 1994 - 1999 (6 seasons)
(a) Best 5 seasons
Option 2. 1992 - 1999 (8 seasons)
(a) Best 7 seasons
Option 3. 1995 - 1999 (5 seasons)
(a) All seasons
(b) Best 4 seasons
Option 4. 1996 - 2000 (5 seasons)
(a) Best 4 seasons

Figure 3.3-2 is a graph of the distribution in the Bering Sea *C. opilio* fishery under the different qualifying year options. Table 3.3-5 shows the mean, median, and average of the four largest allocations under the different options[23]. Both the figure and table show that the allocations are quite similar. The mean (or average allocation) and the median (the midpoint in the distribution) are both slightly less than one-half of one percent. The vessels receiving the highest allocations will receive substantially higher allocations than most other vessels, receiving more than twice the median or the mean. The average allocation to these vessels is slightly more than one percent of the total allocation. Under all of the options the mean, median, and average of the four largest allocations are approximately the same. The number of vessels receiving an allocation ranges from 243 under Options 3A and 3B to 251 under Option 2A.

Table 3.3-5 Mean, median, and average of the four largest allocations under the different options in the Bering Sea C. opilio fishery.

Fishery	Mean	Median	Average of four largest allocations
Bering Sea Opilio			
Option 1A -1994 - 1999 (Best 5 seasons)	0.004	0.004	0.010
Option 2A - 1992 - 1999 (Best 7 seasons)	0.004	0.004	0.010
Option 3A -1995 - 1999 (All seasons)	0.004	0.004	0.010
Option 3B - 1995 - 1999 (Best 4 seasons)	0.004	0.004	0.011
Option 4A -1996 - 2000 (Best 4 seasons)	0.004	0.004	0.010

Source: NPFMC Crab Database 2001 - Version 1

[23]The vessels in various groupings may change by alternative, since their overall ranking in the fleet may change

Table 3.3-12 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) golden king crab fishery . Figure 3.3-8 is a graph of the distribution in the fishery under the different options. The table and graph show substantial variation in the distribution of the allocations under the different options. The average allocation to the four leading vessels varies by more than 5 percent under the options, with the leading four vessels receiving an average allocation of more than 22 percent under Option 3A and an average allocation of slightly more than 16 percent under Option 1B. Options 1A and 1B include substantially more vessels in the allocation (22 vessels) than the other options (which include between 10 and 14 vessels in their allocations). The median (midpoint) of the allocation distribution is slightly larger under Options 3A and 3B (approximately 4 and 4.5 percent, respectively) than under the other options (all of which have a median of approximately 2.5 percent).

Table 3.3-12 Mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) golden king crab fishery

Fishery	Mean	Median	Average of four largest allocations
Western Aleutian Islands (Adak) Golden King Crab			
Option 1A - 1992-1993 to 1998-1999 (All seasons)	0.045	0.022	0.170
Option 1B - 1992-1993 to 1998-1999 (Drop one season)	0.045	0.023	0.167
Option 2A - 1995-1996 to 1998-1999 (All seasons)	0.071	0.025	0.212
Option 2B - 1995-1996 to 1998-1999 (Drop one season)	0.071	0.026	0.210
Option 3A - 1996-1997 to 1998-1999 (All seasons)	0.100	0.038	0.223
Option 3B - 1996-1997 to 1998-1999 (Drop one season)	0.100	0.046	0.217
Option 4A - 1996-1997 to 2000-2001 (Best 4 seasons)	0.091	0.028	0.213

Source: NPFMC Crab Database 2001 - Version 1

Table 3.3-13 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Eastern Aleutian Islands (Dutch Harbor) golden king crab fishery . Figure 3.3-9 is a graph of the distribution in the fishery under the different options. The table and graph show more similarity in the allocations under the different options than in the Western Aleutian Islands (Adak) golden kning crab fishery. The average allocation to the four leading vessels varies by at most 2.5 percent under the options, with the leading four vessels receiving an average allocation of almost 18 percent under Option 2A and an average allocation of almost 15.5 percent under Option 4A. The mean and median allocations, however, differ substantially under the different alternatives. The mean, which is a function of the number of vessels receiving an allocation, ranges from slightly more than 5 percent under Options 1A and 1B to slightly more than 9 percent under Options 3A and 3B. The median (or the midpoint in the allocation distribution) is approximately 1.5 percent under Options 1A and 1B and is almost 9 percent under Option 3B. The reason for the low median allocation under Options 1A and 1B is likely that these allocation alternatives include additional vessels that receive relatively small allocations. The number of vessels receiving an allocation under the Options ranges from 11 under Option 3A and 3B to 19 under Options 1A and 1B.

Table 3.3-13 Mean, median, and average of the four largest allocations under the different qualifying year options in the Eastern Aleutian Islands (Dutch Harbor) golden king crab fishery

Fishery	Mean	Median	Average of four largest allocations
Eastern Aleutian Islands (Dutch Harbor) Golden King Crab			
Option 1A -1992-1993 to 1998-1999 (All seasons)	0.053	0.014	0.172
Option 1B -1992-1993 to 1998-1999 (Drop one season)	0.053	0.014	0.170
Option 2A -1995-1996 to 1998-1999 (All seasons)	0.077	0.060	0.179
Option 2B -1995-1996 to 1998-1999 (Drop one season)	0.077	0.054	0.178
Option 3A -1996-1997 to 1998-1999 (All seasons)	0.091	0.084	0.172
Option 3B -1996-1997 to 1998-1999 (Drop one season)	0.091	0.088	0.169
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	0.083	0.074	0.154

Source: NPFMC Crab Database 2001 - Version 1

Table 3.3-14 shows the mean, median, and average of the four largest allocations under the different qualifying year options for "GHL Split" option that would base the allocation to each participant on the combined history in the Eastern and Western Aleutian Islands golden king crab fishery . Figure 3.3-10 is a graph of the distribution in these fisheries under the different options. The average allocation to the four leading vessels varies by at most 2.5 percent under the options, with the leading four vessels receiving an average allocation of almost 18 percent under Option 3A and an average allocation of approximately 15.5 percent under Option 1B. The mean and median allocations, however, differ substantially under the different alternatives. The mean, which is a function of the number of vessels receiving an allocation, ranges from approximately 4 percent under Options 1A and 1B to slightly more than 8 percent under Options 3A, 3B,and 4A. The median (or the midpoint in the allocation distribution) is slightly less than 1.3 percent under Options 1A and 1B and is almost 8 percent under Option 3B. The reason for the low median allocation under Options 1A and 1B is likely that these allocation alternatives include additional vessels that receive relatively small allocations. The number of vessels receiving an allocation under the Options ranges from 12 under Option 3A, 3B, and 4A to 23 under Options 1A and 1B.[24]

Table 3.3-14 Mean, median, and average of the four largest allocations under the different qualifying year options for combining the allocations in the Eastern and Western Aleutian Islands golden king crab fishery

Fishery	Mean	Median	Average of four largest allocations
GHL Split EAI (Dutch Harbor)/Western Aleutian Islands (Adak) Golden King Crab			
Option 1A -1992-1993 to 1998-1999 (All seasons)	0.043	0.013	0.157
Option 1B -1992-1993 to 1998-1999 (Drop one season)	0.043	0.013	0.155
Option 2A -1995-1996 to 1998-1999 (All seasons)	0.071	0.049	0.172
Option 2B -1995-1996 to 1998-1999 (Drop one season)	0.071	0.049	0.169
Option 3A -1996-1997 to 1998-1999 (All seasons)	0.083	0.069	0.178
Option 3B -1996-1997 to 1998-1999 (Drop one season)	0.083	0.078	0.173
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	0.083	0.063	0.169

Source: NPFMC Crab Database 2001 - Version 1

[24]A complete analysis of the option for combining the allocations from the Eastern and Western Aleutian Islands requires a vessel by vessel comparison of the allocations, which is not completed for this draft.

DAVE C-5 FRASER

CRAB RATIONALIZATION

Refining the Problem Statement:

The Council should provide a more explicit policy goal in the problem statement concerning its goals regarding relative bargaining power of harvesters and processors.

If the Council has a desired outcome relative to the sharing of either 1st wholesale revenues or the joint profits of the harvesting and processing sectors, it should seek an enhanced analysis that would allow it to choose from a variety of reference points.

The range of options for the distribution of benefits include:

- equal split
- split proportional to investment (as adjusted for factors such as depreciation, risk, malleability, etc.)
- split proportional to the relative dependence on crab by eligible harvesters and eligible processors
- "status quo ante" as a snapshot at the time of council action,
- "status quo ante" as an average of baseline years chosen of distribution of quota shares
- "status quo ante" as of the one of the dates at which the Council committed to rationalize crab (1987, 1992, 1995, 1998)

Enhanced Analytical Elements:

In order for the Council to evaluate the various reference points and to conduct subsequent impact analyses, it needs an analysis which provides:

- information on relative dependence of eligible crab harvesters and eligible crab processors on crab vs other fisheries. (similar to table 2.6-4 – include information on the % of harvest processed by non-eligible processors by year.)

- information on relative capital investment (new cost, depreciated value, replacement cost) of eligible crab harvesters and eligible crab processors in crab versus other fisheries. This should include information on relative portions of investment that are specific to crab.

- information on relative revenue shares by year, of the 1st wholesale value of crab by harvesters and processors in the crab fisheries over the qualifying years by crab species. This should include correlation of revenue shares to GHLs.

Include Reasonable Alternatives Within the EIS as Required by NEPA

The range of alternatives should include an alternative which seeks to provide protections for working fishers, communities, and processors within the framework of a One Pie ITQ system. This could be achieved with the a couple modifications of the One Pie ITQ alternative in the present analysis.

As noted on page 335 of the analysis, the Canadian Groundfish Development Authority administers a 10% set aside in the One Pie groundfish ITQ program, for the purpose of: "regional development, market and employment stabilization and sustainable fishing practices." Their program uses 10% of the allocation as leverage to protect processors and community interests.

- The One Pie Alternative should include the option to reserve (0-20%) of QS pool for allocation to eligible processors (as defined by 2.1) to be distributed according to the formula in 2.3. This allocation would be in lieu of IPQ allocations.

- The One Pie Alternative should include a binding arbitration provision to ensure an equitable price formation mechanism.

- The One Pie Alternative should include the option to specify the percentage of the revised CDQ allocation for St. George and St. Paul in lieu of regionalization.

The Council should not box itself into a position whereby it is forced to choose a sub-optimal Two Pie alternative only because the One Pie alternative was never fully developed to provide processor and community protections.

Seeking Common Ground with Scott Matulich:

A One Pie ITQ, allocated only to harvesters, is likely to increase harvester bargaining power.

Elongation of the season is likely to reduce processor bargaining power.
(– Corollary:
Shortening the season is likely to have reduced harvester bargaining power.)

Rationalization has the potential to increase profitability for both harvesters and processors.

A One Pie ITQ can be designed that makes most processors and harvesters better off.

If the Council has a specific policy goal about distribution of benefits it should be explicit about that goal.

Sectors who expect to be made worse off by the design of a program will attempt to derail adoption of the program.

Kevin Suydam

Problem of Excessive Shares in The Brown Crab Fishery

My name is Kevin Suydam, owner of the Crab vessel "Lady Alaska". I have invested in excess of $500,000 in equipment and gear, which is for Brown Crab use exclusively. This was at a time of 12 month long seasons leaving un-harvested Quota at the time of Season closures. This was at the time of the least number of participants (less than 20) that this Fishery has ever had. Initially, it was determined that the NPFMC Council should **not** include Brown Crab in rationalization. It was only by lobbying of certain Brown Crab Owners with excessive shares that it was brought in the Rationalization Process. Now we are trying to rationalize the Brown Crab Fishery years ahead of its time. The Brown Crab Fishery is the youngest having starting in 1981, 30 years after the Bristol Bay red king crab Fishery.

The concern of rationalizing Brown Crab is the staggering, huge windfall allocations awarding excessive Quota Shares, compounded with having no way to enforce ownership caps. This is against National Standard 4. To give an example by referring to pages of the latest draft, you find that the Top 4 vessels in the Opilio Fishery (page 194) have an average initial allocation of 1% giving a combined 4 vessel amount of 4 % of the Opilio fishery. In the Western Aleutians Brown Crab (page 205) the Top 4 vessels have an average initial allocation of 21.3% each which gives a combined 4 vessel amount of 85.2% of the fishery. In the Eastern Aleutian Brown Crab (page 206) the Top 4 vessels have an average allocation of 15.4% each which gives a combined 4 vessel amount of 61.6% of the Fishery. There are 1 or 2 vessels that don't have other Fisheries other than Brown Crab. You have heard testimony saying that Brown crab is all they have. What they neglected to tell you is that their Brown Crab History are equivalent in value to about 5-6 Opilio Vessel histories. These individuals are currently selling out of the Fishery and will receive huge windfalls. On the other hand, I only wish to remain in the Fishery with at least enough quota to make it economically feasible to do so based on my huge investment in this Fishery.

Another concern is of enforcing ownership caps. It may already be too late in the Brown Crab fishery. Recently there have been more ownership changes by sales of Brown Crab vessels, than in any of the other Fisheries. There are additional pending Brown Crab Vessel purchases in the many millions of dollars. There are latent Catch Processor licenses being re-activated into the Brown Crab Fishery. If the Council Staff could be given the time and instructions to research this activity to find out where ownership interests are, as well as realizing that there are pending vessel sales of which are not yet recorded; I believe the Council would shocked at it's findings. It is possible for one company to control this Brown Crab Fishery given the low number of existing participants that will be awarded these excessive shares. I ask that the NPFMC Council take measures to prevent this Fishery be dominated by one company.

I realize it is the position of the Council to reward Historical Participation when allocating fishing privileges. The Brown crab fishery is an anomaly to that position. By rewarding historical participation, as strictly as is done in other fisheries; the Council will have a hand in creating the excessive share problem compounded by having no ability to enforce ownership caps. Therefore I am asking that the Council leave open an escape route to remove Brown Crab

from the rationalization process if it is determined to be fatally flawed by excessive shares and having no way to enforce ownership caps.

National Standards, NEPA Guideline requirements, as well as NOAA General Counsel statements; say that we consider use of years through Final Action. I have been testifying to this for many meetings now. I am asking this again. It has been suggested there may not be enough time now. Yet I have heard testimony by others who have come to the meetings for the very first time and others bringing up new issues for the very first time that will have their issues addressed and analyzed. My request has strong legal merit and ramifications, and needs to be analyzed. I am asking for the additional year 2000/2001 be added for analysis.

Thank you for your time and attention, Kevin Suydam

Kevin Swydan
C-5

PROPOSED MOTIONS:

ADD OPTION 5 TO 1.4.2.7.

1996/1997-2001/2002

WHY?

- When developing a fishery management plan, the Council and the Secretary **must** take into account the following factors

  A) **present participation in the fishery**
  B) historical fishing practices in, and dependence on, the fishery
  C) the economics of the fishery
  D) the capability of fishing vessels used in the fishery to engage in other fisheries
  E) the cultural and social framework relevant to the fishery and any affected fishing communities, and
  F) any other relevant considerations

- All of the options currently being analyzed fail to consider present participation. In fact three of the options only consider years up until 1998/1999.

- The options also fail to consider factors C, E, and F. In fact, the only factors analyzed under these options are B (historical practices) and D.

- Adding Option 5 would take into account all of the factors, including historical practices.

- Option 5 is consistent with National Standards 1 and 4.

- Option 5 is consistent with NEPA Guidelines.

- Option 5 takes into consideration comments made by NOAA GC recognizing the importance of present participation. Initial Review Draft pg. 15.

- We are merely asking that this be analyzed.

REASONS WHY THESE YEARS ARE NOT APPROPRIATE FOR OTHER FISHERIES

- What is good for one fishery, is not necessarily good for the others. In fact, that is precisely why some of the crab fisheries are not currently being considered for rationalization. Each fishery must be considered individually.

- What is good for one fishery is not necessarily good for the others. In fact, that is precisely why some of the crab fisheries are not currently being considered for rationalization. Each fishery must be considered individually.

REASONS WHY THESE VIEWS ARE NOT APPROPRIATE FOR OTHER FISHERIES

- We are merely asking that this be analyzed.

- Option 2 is consistent with National Standards 1 and 4.

- Option 3 is consistent with NEPA Guidelines.

- Option 4 takes into consideration comments made by NOAA GC recognizing the importance of present participation. Initial Review Draft pg. 15.

- Adding Option 5 would take into account all of the factors, including historical practices.

- The options also fail to consider factors C, E and F. In fact, the only factors analyzed under these options are B (historical practices) and D.

- All of the options currently being analyzed fail to consider present participation. In fact three of the options only consider years up until 1995(1996).

- When developing a fishery management plan, the Council and the secretary must take into account the following factors

  A) present participation in the fishery
  B) historical fishing practices in, and dependence on, the fishery
  C) the economics of the fishery
  D) the capability of fishing vessels used in the fishery to engage in other fisheries
  E) the cultural and social framework relevant to the fishery and any affected fishing communities, and
  F) any other relevant considerations

- If there was ever a time to look at present participation, this is it. In fact, it is questionable whether this fishery should even be included in the rationalization process. As stated in the Initial Review Draft on page 136, "[r]ationalization is a tool to primarily address concerns of overcapitalization and overfishing. If the Council cannot answer yes to the following three questions, then the fisheries is not ripe for rationalization: 1) Is there documented overcapitalization in the harvesting and/or processing sector as a result of this fishery? 2) Is the participation level high enough to generate a race for the fish under shorter and shorter seasons? 3) Are there outstanding biological or management concerns, i.e. overfishing, bycatch, etc. that warrant rationalization as a management tool?" The answer is "no" to all three questions in the Brown Crab fishery.

- This fishery is UNIQUE. Its uniqueness cannot be overstated!!! Low participation, excessive shares, and full utilization only being met recently. In addition there is no way to enforce ownership caps in this fishery.

- If there was ever a time to look at person participation, this is it. In fact, it is questionable whether this fishery should ever be included in the rationalization process. As stated in the Initial Review Draft on page 1-6, "[r]ationalization is a tool to primarily address concerns of over-capitalization and overfishing. If the Council cannot answer yes to the following three questions, then the fisheries is not ripe for rationalization. 1) Is there documented overcapitalization in the harvesting and/or processing sector as a result of this fishery? 2) Is the participation level high enough to generate a race for the fish under current and similar seasons? 3) Are there outstanding biological or management concerns, i.e. overfishing, bycatch, etc. that warrant rationalization as a management tool?" The answer is "no" to all three questions in the Brown Crab fishery.

- This fishery is UNIQUE. Its uniqueness cannot be overstated!! I am participating, excessive above, and full utilization only being my necessity. In addition there is no way to enforce ownership caps in this fishery.

C-5
Walt Christiansen

Deep Sea Fishermen's Union of the Pacific

5215 Ballard Avenue N.W.
Seattle, Washington, 98107
Phone: (206) 783-2922
Fax: 783-5811

Established 1912

April 2, 2002

Chairman David Benton
North Pacific Fishery Management Council
605 West 4th. Avenue, Suite 306
Anchorage, AK 99501-2252

Dear Chairman Benton,

On behalf of the 300 plus members of the Deep Sea Fishermen's Union of the Pacific (DSFU) we want to thank you for the appointment of Beau Bergeron, our Executive Director, to the Council's IFQ Implementation and Cost Recovery Committee. Beau will bring a deep skill set and dedication to the committee.

DSFU is an independent union and the oldest organization of crewmen and skippers in the North Pacific. It was founded in 1912 and is composed of longliners who fish primarily in the Gulf of Alaska and the Bering Sea. Many of our members worked aboard vessels during the qualifying years for the original Individual Fish Quota (IFQ) process and allocation.

The Union and its members were very active in the development and implementation process. It is truly unfortunate, especially in retrospect, that crew members did not receive any initial allocation. Discussions about this aspect of IFQ inappropriately replied to crew members as "ancillary to the operation" and a potential source of "bookkeeping nightmares." Both categorizations were false and demean the absolutely essential role we play as well as the continuing professionalism exhibited by Union members.

Since that time, many crewmembers have invested heavily in IFQ purchases in order to regain the immense amount of collective bargaining ability we lost with the implementation of this system. Our Union is uniquely qualified to comment on the IFQ process and its impact on crew members (working fisherman) and the fishery. The

Captain and Crew Quota Ownership provision in the Crab Rationalization effort is an opportunity not available to us at the onset of IFQ.

With Crab Rationalization we now, collectively, have the opportunity to lean from our experience and ensure this provision is included in the program. Captain/Crew Quota Ownership Share fosters job security, stability of the market and protects the fishery. DSFU is fully and enthusiastically supportive of the inclusion of the Captain/Crew Quota Ownership Share in the Crab Rationalization proposal.
Thank you in advance for your consideration. Additionally, we will certainly be available to the Council and the Advisory Panel to lend our insight and experience to what we feel is an extremely important part of this program.

Sincerely,

Pat Hunter

Pat Hunter
President

C-5

City of Atka

City Office: P.O. Box 47070 ❁ Atka, Alaska 99547 ❁ Phone:(907)839-2233 ❁ Fax: (907)839-2234
Administrator: P.O. Box 765 ❁ Unalaska, Alaska 99685 ❁ Phone:(907)581-6226 ❁ Fax: (907)581-6317
E-mail: atka2@arctic.net

April 2, 2002

David Benton
Chairman
North Pacific Fisheries Management Council
605 West 4th Avenue
Anchorage, Alaska 99501-2252

RE: Crab Rationalization

Dear Chairman Benton:

It is my understanding that there are a number of proposals meant to address rationalization of the crab industry. Some of these proposals could eliminate any future participation by the community of Atka in the crab industry.

Atka has not in the past been able to participate in the crab industry due to isolation and lack of infrastructure. The Community Development Quota (CDQ) program has provided infrastructure to enable residents of Atka to participate in the commercial halibut fishery. The small local shore-based plant must diversify operations in order to provide the village with a stable economic base using what is available around the island of Atka.

The Aleutian Pribilof Islands Community Development Association (APICDA) has future plans for expanding operations of Atka Pride Seafoods to include crab. Proposals that restrict participation in the industry by the people who live in the area are unjust and unreasonable. The City of Atka supports the proposal of APICDA that reads as follows:

> *"Any limitation of future crab processing entities, whether as a result of crab processor quota shares, the formation of cooperatives, or some other limitation, shall not apply to a CDQ community that does not have a shore side crab processing facility, providing the crab processing facility constructed is owned at least fifty percent by the CDQ group representing that community."*

Thank you for your consideration.

Sincerely,

Julie Dirks

Julie Dirks
City Administrator

Cc: Atka City Council
APICDA

C-5a

AGENDA C 5(a) Comment

Alaska Crab Coalition
3901 Leary Way N.W., Suite #6
Seattle, Washington 98107
206.547.7560
Fax 206.547.0130
acc-crabak@msn.com

DATE: March 18, 2002 RC 52

TO: Ed Dersham, Chairman
Alaska Board of Fisheries

Total pages: 4

FROM: Arni Thomson, Executive Director

RE: COMMENT ON COMMITTEE A REPORT, PROPOSAL 422, ADAK RED KING CRAB MANAGEMENT PLAN

To establish a concurrent opening date of the Bristol Bay king crab fishery and the Adak red king crab fishery in order to keep the number of participants to a minimum as a stock protection measure, would be highly allocative and not sound policy for the State of Alaska. The ACC reiterates the need to set the opening date to 10 days following the closure of the Bristol Bay king crab season, so the 21 permanent LLP qualified vessels can have an equal opportunity to participate in the fishery.

- **Seven committee participants, including the ACC, PNCIAC and the City of Unalaska supported the differential opening dates, while only two participants supported the concurrent season opening date.**

- **Adopting a regulation for concurrent opening of the Adak red king crab fishery with the Bristol Bay king crab fishery will allocate almost the entire GHL to a handful of vessels that fish the adjacent Adak golden king crab fishery. A concurrent opening date will provide a special opportunity for 5 – 6 vessels to concurrently fish two king crab fisheries at the same time, while the 21 Bristol Bay qualified vessels will be denied the opportunity for a fair start in the fishery—by the same regulation.**

- **Adopting staggered season opening dates for the Adak and Bristol Bay red king crab seasons will not negatively effect the 5 – 6 golden king crab vessels, it will just provide all participants with a fair start opportunity.**

See the attachments from the NPFMC BSAI Crab Rationalization Program Alternatives, January 2002:
1. Figure 3.4-9, Western Aleutian Islands (Adak) Red King Crab Fishery; and
2. Figure 3.4-8, Western Aleutian Islands (Adak) Golden King Crab Fishery

The graphs illustrate the benefits of geographic proximity. There is a strong correlation between at least two of the top four vessels in (group #1) that have the largest catch histories in the Adak golden king crab fishery and the Adak red king crab fishery.

This is in part due to the fact that at least two of the vessels are operating in the golden king crab fishery at the time the red king crab fishery opens and they have the advantage of minimal startup costs, including an observer onboard, and geographic proximity to the Adak red king crab area.

The top four vessels in each fishery, in the NPFMC rationalization program could each share 15-25% of the king crab allocations in the Western Aleutian Islands red and golden king crab fisheries under a quota share program.

cc: Chris Oliver, Executive Director, NPFMC

The Western Aleutian Islands (Adak) Red King Crab Fishery

Figure 3.4-9 shows the distribution of harvests in the Western Aleutian Island (Adak) red king crab fishery. The distributions in this fishery follow no apparent pattern but as with the other fisheries are generally flatter in years when more vessels participated. The average harvests of the four leading vessels ranged from slightly more than 15 percent in the 1994-1995 season to 25 percent in the 1995-1996 season, when only 4 vessels participated in the fishery. Mean harvests in the fishery range from slightly more than 5 percent in 1994-1995 season to 25 percent in the 1995-1996 season.

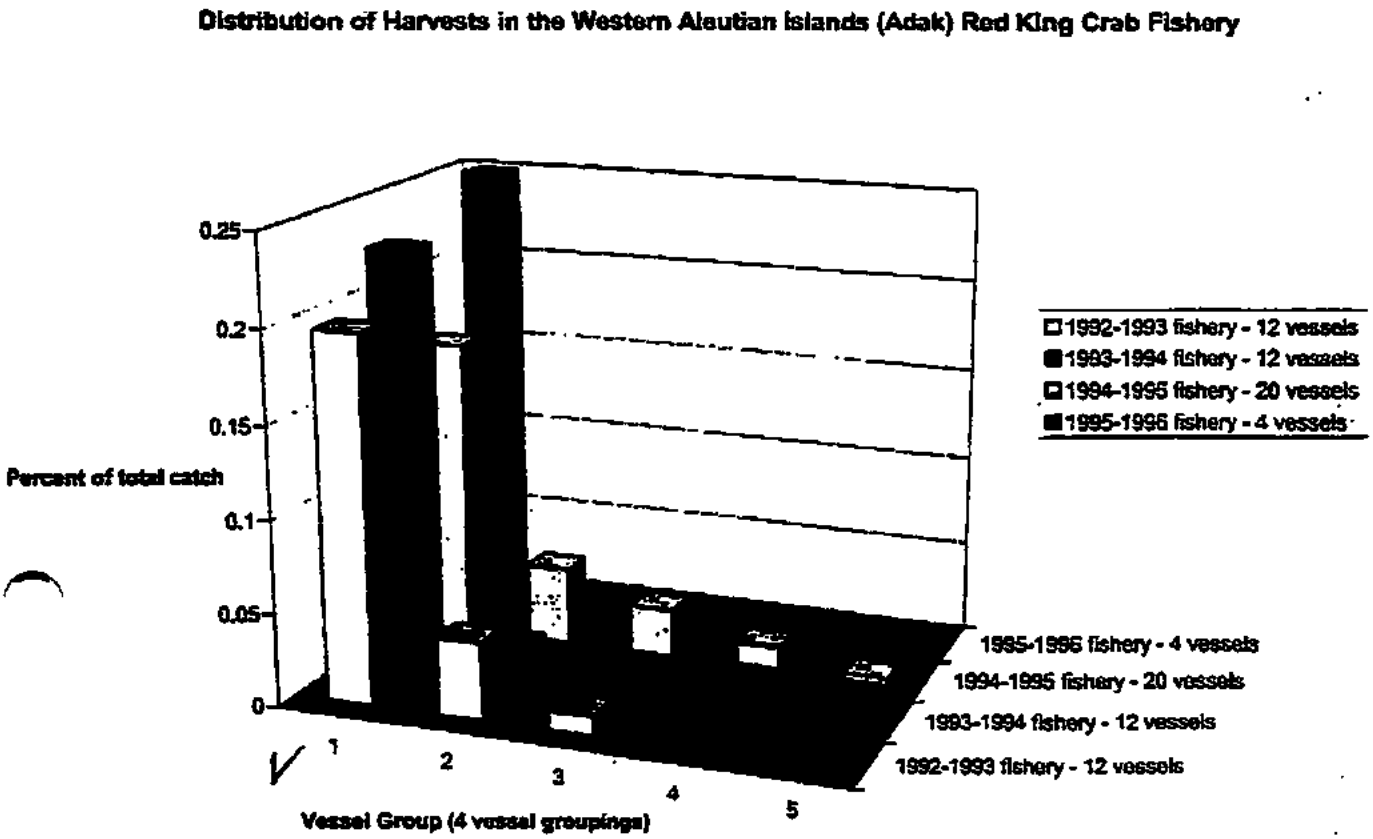

Figure 3.4-9 Distribution of Harvests in the Western AI Red King Crab Fishery

The Western Aleutian Island (Adak) Golden King Crab Fisheries.

Figure 3.4-8 shows the distribution of harvests in the Western Aleutian Island (Adak) golden king crab fishery. The distributions in this fishery have fluctuated greatly, as the number of vessels participating in the fishery has fluctuated greatly. The four leading vessels have typically harvest between 15 and 20 percent of the total harvest. In two season, however, the average harvests of these vessels was slightly more than 10 percent. In the two most recent seasons, the average harvest of the leading 4 vessels was approximately 20 percent of the total harvest. Mean harvests in the fishery range from less than than 5 percent in 1994-1995 season to over 33 percent in the 1998-1999 season, when only 3 vessels participated in the fishery.

Distribution of harvests in the Western Aleutian Islands (Adak) Golden King Crab Fishery

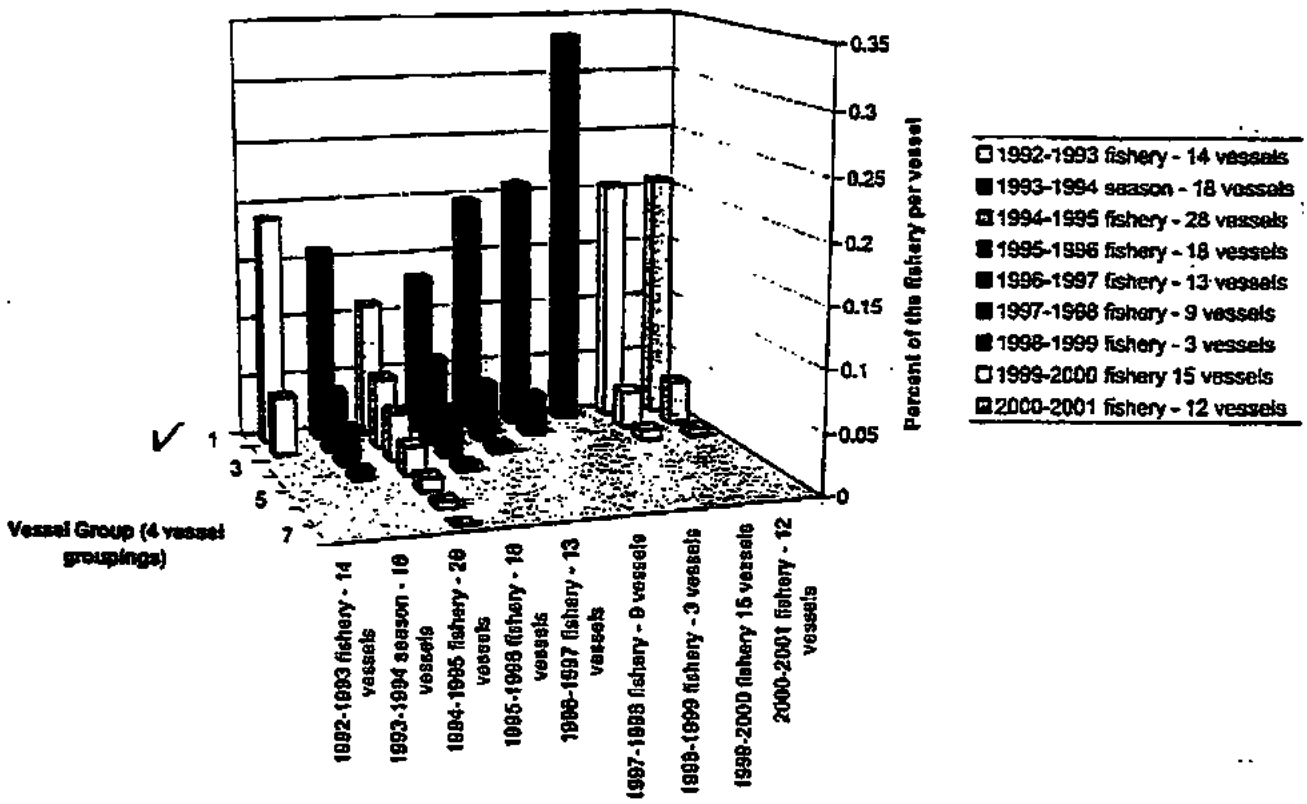

Figure 3.4-8 Distribution of Harvests in the Western Aleutian Islands Golden King Crab Fishery

RC 71

Alaska Crab Coalition
3901 Leary Way N.W., Suite #6
Seattle, Washington 98107
206.547.7560
Fax 206.547.0130
acc-crabak@msn.com

DATE: March 21, 2002

TO: Ed Dersham, Chairman
Alaska Board of Fisheries

FROM: Arni Thomson, Executive Director
Alaska Crab Coalition

RE: RC 69
REQUEST FOR CONSIDERATION – SURVEY
REQUIREMENTS FOR THE ADAK RED KING
CRAB AREA FROM 172 – 179 WEST LONGITUDE

The ACC wishes to comment on the request for reconsideration of the state waters survey in the area from 172 – 179 West longitude.

The ACC requests that if the BOF takes up the Adak issue again, that allowance be made for larger boats to participate in a survey, and a commercial fishery, in the federal waters, within the area proposed for development of a state waters small boat survey and fishery.

The area under consideration is very extensive and the ACC has been informed by some of its members that most of the historic red king crab grounds within this area are in federal waters. This information was not available to the public during committee deliberations. Industry did not have time to consider a complementary federal waters survey and development of a fishery management plan and a parallel federal waters fishery. Unless a survey and a fishery in federal waters is included in this Board action, there is a strong possibility for substantial foregone harvests of king crab in this area.

The federal waters survey and fishery request are in accordance with the FMP Management Objectives 2 and 7, calling for maximum economic and social benefits to the nation over time; and to provide fisheries research, data collection and analysis to ensure a sound information base for management decisions. The request is also in accordance with National Standard 1, to achieve optimum yield; and National Standard 3, an individual stock of fish shall be managed throughout its range...

The ACC does not agree with RC 69's (Dick Powell) statement that very few persons, other than brown king crabbers will be interested in assuming the financial risks to bid on a survey in this area. ACC has at least four members with Adak red king crab LLPs with vessels greater than 100 feet in length that are interested in participating in the survey. To make the federal waters survey financially feasible for single line pot fishermen, it is recommended that the survey be conducted immediately following this fall's Petrel Bank red king crab fishery, when vessels will already have incurred their startup and observer costs, and the same observers can be used for an additional short term survey. Conducting the survey in the winter months will give preferential treatment to a handful of brown crab vessels already operating on adjacent grounds.

Thank you for your consideration.

C-5
Assisted w/ Matulich Research

Biographical Sketch

Don A. Dillman
Social & Economic Sciences Research Center
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dillman@wsu.edu

Dr. Dillman is the Thomas S. Foley Distinguished Professor of Government and Public Policy in the Departments of Sociology and Rural Sociology, and Deputy Director for Research and Development in the Social and Economic Sciences Research Center (SESRC) at Washington State University. In 1970, he was founding coordinator of the SESRC's Public Opinion Laboratory (1970-1973), one of the first university-based telephone survey laboratories in the United States.

He is recognized internationally as a major contributor to the development of modern mail and telephone survey methods. His book, Mail and Telephone Surveys: The Total Design Method (1978), was the first to provide detailed procedures for conducting surveys by these methods. It was recognized by the Institute for Scientific Information as a "Citation Classic", and has now been cited in more than 1,750 scientific publications. In 1991 he was appointed (under the Intergovernmental Personnel Act) as the senior survey methodologist in the Office of the Director, U.S. Bureau of the Census, a position he held until1995, where he provided leadership for the development of new questionnaire designs and procedures for the 2000 Decennial Census and other government surveys. This and related work on other federal agency surveys led to his receiving the Roger Herriot Award for innovation in federal statistics in September 2000.

He has three degrees from Iowa State University (B.S. Agronomy, 1964; M.S. Rural Sociology, 1966; Ph.D. Sociology, 1969), from which he received a Distinguished Alumni Citation in 2001. He came to Washington State University in 1969 as an assistant professor and has served the University as Chair of the Department of Rural Sociology (1973-81); Interim Chair, Department of Child and Family Studies (1984-85); Interim Community Resource Development Program Leader for Cooperative Extension (1978); and Director of the SESRC (1986-1996).

Throughout his 32-year career at Washington State University, Dr. Dillman has maintained an active research pro-gram on the improvement of survey methods and how information technologies influence rural development. He has served as investigator on 71 grants and contracts worth nearly $10 million, and written 180 publications, including 9 books. Recent books include: How To Conduct Your Own Survey (1994, with Priscilla Salant), Against All Odds: Rural Community in the Information Age (1994, with John Allen), Mail and Internet Surveys: The Tailored Design Method (2000), and Survey Nonresponse (2002, eds. Groves, Dillman, Little and Eltinge).

He is 2001-2002 President of the American Association of Public Opinion Research, which he previously served as Secretary (1996) and Councilor-at-Large (1999). Other significant accomplishments include being selected as a Fellow in Class I (1980-83) and advisor to Class XI (1990-93) of the Kellogg Foundation's National Fellowship Program; President (1984-85) of the Rural Sociological Society, a national professional association, recipient of its Outstanding Service Award for co-editing Rural Society in the United States: Issues for the 1980's (1983), and Excellence in Research Award (1998); and election as a Fellow by the American Association for the Advancement of Science (1987) and the American Statistical Association (1995). At Washington State University he was the 1985 presenter of the Distinguished Faculty Address, 1994 recipient of the College of Liberal Arts Distinguished Achievement Award, and 1995 winner of the University Sahlin Faculty Excellence Award for Research.

Since 1980, Dr. Dillman has presented seminars at more than 30 universities throughout the United States, and lectured in England, Sweden, Ireland, The Netherlands, Canada, Republic of China, Guam, and New Zealand. He was Guest Professor at the German Center for Survey Methods and Analysis in Mannheim, Germany in 1985, 1987, and 2001, and has served frequently as an instructor at the University of Michigan's Annual Summer Survey Institute since 1988. He regularly presents workshops on designing surveys and has delivered more than 50 keynote or other major invited addresses to various organizations. He has also served as a consultant on survey methods to many government agencies and private organizations.

Dr. Dillman was raised on a farm near Chariton, Iowa, and was married in 1964 to Joye Jolly Dillman (B.S., M.S., Iowa State University), associate professor in the Department of Human Development at Washington State University.

Curriculum vita and recent papers available from http://survey.sesrc.wsu.edu/dillman/ October 2001.

Comments on the Matulich and Clark Report

"Efficiency and Equity Choices in Fishery Rationalization Policy Design"

Robert Halvorsen
Professor of Economics
Department of Economics
University of Washington

April 2002

Introduction

The Matulich and Clark paper reports the results of an attempt to determine the policy impacts of the individual fishery quota (IFQ) program for the North Pacific halibut and sablefish fisheries. They assume that the change in economic welfare emanating from the implementation of the IFQ program can be measured as the change in "quasi rents" retained by processors, which they define as the change in revenues in excess of all variable processing costs. Data for the study were obtained from a sample of processors, who were asked to estimate their total revenue, total raw fish cost, and several cost items assumed to be equal in aggregate to total variable processing costs.

The study is ambitious, but critical defects in its theoretical and empirical methodology invalidate its results. The fundamental theoretical problem is that the quasi-rent measure used to evaluate welfare changes is not consistent with economic theory and would not provide reliable estimates of changes in welfare even if it were estimated accurately. Furthermore, the empirical methodology is deeply flawed and would be incapable of providing reliable estimates of welfare change even if a theoretically correct measure were being used. In short, the study measures the wrong thing, and measures it poorly.

The Measure of Welfare Change

Quasi-rents are fundamentally a short-run concept. The short-run is defined as the period of time during which at least one of the firm's input quantities cannot be changed. It should be noted that, although it is customary for expository reasons to use capital inputs as examples of fixed inputs, and labor and materials inputs as examples of variable inputs, some capital inputs may in fact be variable in the short-run (e.g., motor vehicles, personal computers), and some labor and materials inputs may be fixed (e.g., because of transportation costs, job-specific human capital, or contractual commitments).

The difference in the short-run between the firm's total revenue and total expenditures on variable inputs is defined as the quasi-rent to the fixed inputs. That is, the amount in excess of the amount required to keep the fixed inputs in their current use. Thus a decrease in quasi-rents would indicate a decrease in the firms' welfare in the short-run.

In the long-run, by definition, all inputs are variable, and the amount required to keep inputs in their current use is equal to what they could earn elsewhere, including a normal rate of return to capital. Therefore the relevant concept for measuring a firm's welfare change in the long-run is that of economic profit. Quasi-rents would have no operational meaning, being simply equal to economic profit if correctly measured.

There is no direct connection between the economic concepts of the short- and long-run and calendar time. Instead, the amount of time required before all inputs can be considered variable will vary across industries, although it is plausible that in any given

industry the number of inputs that are fixed will decrease with the length of time being considered.

Thus the first-step in attempting to use quasi-rent data to measure changes in a firm's welfare should be a careful evaluation of which, if any, inputs are fixed, given the period of time over which changes are being evaluated. Simply assuming that labor and material inputs are variable and all other inputs are fixed, as done by Matulich and Clark, is not adequate even for a period as short as a year, and is clearly unjustified for the seven-year period over which they are evaluating changes.

To illustrate the type of error their assumption can introduce in the measurement of welfare change, consider the results of applying Matulich and Clark's definition of quasi-rents to evaluate changes that are distant enough in time for all inputs to be variable. Further suppose for ease of exposition that in both periods the price of processed fish is $1.00, the cost of raw fish is $0.40, and average cost is $0.50. Thus economic profit per unit would be equal to $0.10 in both periods and the firm's welfare would be unchanged. Nevertheless, if the firm had become more labor intensive over time, the unit quasi-rent as calculated by Matulich and Clark would have indicated a decrease in welfare. For example, if average costs were split equally between capital and labor costs in the first period, but labor costs accounted for 80% of average costs in the second period, the unit quasi-rent as calculated by Matulich and Clark would have decreased from $0.35 to $0.20, a decrease of 43%.

While this example is hypothetical, it does illustrate that quasi-rent as evaluated by Matulich and Clark does not provide reliable estimates of changes in welfare over longer periods of time. More specifically, increases in labor intensity, other things equal, will result in decreases in welfare as evaluated by their measure.

Lastly, even if reliable estimates of welfare changes were obtained, their normative significance would depend in part on the benchmark on which they were based. Matulich and Clark choose as their benchmark the welfare of processors in 1992-1993, asserting that this period represented an open-access long-run equilibrium. One reason for doubting this assumption is that it is not clear that the fishery would have stabilized at the 1992 levels in the absence of an IFQ program. If not, then a more appropriate benchmark would be the counterfactual case of how the fishery would have developed in the absence of a program.

More directly, the 1992-1993 experience reflected the fact that fishery participants expected an IFQ program to be implemented, and this provided incentives for different behavior than would have occurred in an open-access equilibrium. For example, harvesters might have considered it worthwhile to fish at a loss in order to try to capture or protect catch history.

Data Acquisition and Analysis

Matulich and Clark obtained the data used to estimate changes in quasi-rents from a questionnaire distributed to a sample of processors. The principal types of data requested are total revenue, total raw fish cost, and total variable processing costs, defined as the aggregate of several specific cost elements, including custom processing fees, wage and housing costs for direct labor, and packaging and freight costs. Data on total revenue and total raw fish cost were verifiable from Alaska Department of Fish and Game data, the data for variable processing costs were not.

Economists using survey research techniques have noted that the design of a questionnaire can result in a number of different types of biases. In particular, respondents may engage in strategic misrepresentation of the data if it is clearly in their economic interests to do so. Therefore, one of the most important protocols for survey design is to avoid providing material that establishes a clear link between a participant's responses and his or her economic interests.

The survey design used by Matulich and Clark clearly violates this protocol. The material accompanying the questionnaire noted that Professor Matulich was the principal investigator, that he had written an article showing that the type of program used for halibut and sablefish transfers wealth from processors to harvesters, and that the purpose of this survey was to see if that was true empirically. It was further noted that the purpose of the study was to obtain information for use in evaluating future rationalization programs, in particular to help policy makers to avoid unintended distributive effects, and that distributional impacts would be based on measuring changes in processors' total revenue minus various processing costs. This material can be expected to have helped participants to have realized that there were incentives for misrepresenting data, specifically by overstating the increase in variable costs over time, for which there was no independent source of data.

An important difficulty in assessing the treatment of a number of empirical issues is that the discussion in the report is often qualitative where it would normally be expected to be quantitative. Examples include the section on data problems where it is noted that it was "not uncommon" for aggregation problems to prevent accurately measuring variable processing costs, and that "some" firms were unable to access historical data. No information is provided on the number of firms that were eliminated from the sample for these reasons. Similarly , they report that there were a "few" instances" where inventory issues were "problematic".

In addition, Matulich and Clark report that some firms were considered to be outliers, usually by exhibiting unrealistically high quasi-rents. These firms were contacted for an explanation, and if it was not satisfactory, the firm was dropped from the sample or its data replaced by the sample average. The number of firms considered outliers, how many were considered to report too high quasi-rents, how many justified their data, were dropped, or had their data replaced by sample averages, is not specified.

Lastly, and most surprisingly, Matulich and Clark do not report the number of participants included in the final data. They report that the number of buyers/processors asked to participate in the survey was 53 for halibut and 46 for sablefish, accounting for 88% to 96% of all fish purchased, and that the retained survey data accounts for 52% to 61% of fish purchased. Given the degree of concentration in these fisheries, this may or may not represent a substantial percentage of the number of total firms.

Matulich and Clark do note that the final sample does not include data for any firms that exited the fisheries, which accounted for one-fifth of the total 1992-1993 catch in both fisheries. Although these firms might be expected to have been less profitable than the surviving firms, they are assumed to have had the same quasi-rent share in 1992-1993 as the surviving firms. Similarly, surviving firms that lost market share are assumed to have had the same quasi-rent share as the firms increasing market share.

Concluding Comments

Matulich and Clark conclude from their analysis that 82% of the halibut processing sector (as measured by raw fish weight rather than number of firms) lost quasi-rents relative to the pre-IFQ period, with the average loss being 56%. Even more dramatic results are reported for the sablefish processing sector. However these results cannot be considered to be reflective of the actual effects on the economic welfare of processors.

The basic problem with their approach is that the results depend on the estimates of total variable processing costs, which in turn depend on arbitrary, and unrealistic, assumptions concerning which inputs are variable over a seven-year time span. In addition, estimation of total variable costs conditional on these assumptions depends on survey data from processors, who can be expected to clearly realize that there are incentives for strategic misrepresentation.

Gordon Blue C-5

Although I did see Vince taking a class on TV, in Juneau, this story is fiction. Vince would NEVER behave in such a ludicrous fashion. I hope the contrast with his actual persona makes this a funny story, in this light.

On the other hand, this story isn't about Vince at all - there is a substitution code at work. In this sense, we have an exact though somewhat unorthodox, current statement.

Here is the key:
Anchorage meetings = open access crab fishery
Juneau meetings = ITQ crab fishery
Anchorage house, Juneau house, airplane = capital investments
Dr. Matulich = Dr. Matulich
Mr. Oliver = fishery managers
Mr. Balsiger, et al = major ITQ recipients, major ports
Mr. Austin, et al = minor ITQ recipients, minor ports
Mr. Samuelsen, et al = other communities, future entrants to fishery
Mr. Penny = sports fishing
Mr. Hanson, et al = Robert's rules, conservation, international relations
Capt. O'Shea = major processors

UNIT QUASI RENTS: How to Rationalize the NPFMC

This is a story about Economics, so it starts as the economists always do: "Assume that the NPFMC requires each Council Member to pay his or her own travel costs for meetings, and that it has always done so." This isn"t the way the Council actually works, but it is the way fishing works.

This all happened before Vince left, so it serves him right. One night on the TV, a college class in Public Policy was broadcast all over Juneau. There was the teacher, and there was the class - and look! One of them was Vince O'Shea. **What if they asked Dr. Scott Matulich to teach one of those classes?**

Assume that they did.

At the next council meeting, there sits Vince, thinking about what he'd learned in class. He looks across the room at Bob Penny. "Look at all the money that guy's got," he thinks. "He lives in Anchorage. His variable costs for these meetings are zero. He's taking home a ton of money. Matulich's right. I"ve got to increase my Unit Quasi Rents. [1] "

So, Vince stays over an extra day, and buys a house in Anchorage. Next meeting, Vince is on the way to Anchorage, sitting on the plane. He's got

---

[1] **'Unit Quasi Rents' = Net revenue, after variable costs are deducted / meeting.**

a week worth of food, all prepared in advance by Mrs. O'Shea. He's got his cell phone, and he's going to his new house. All this meeting is going to cost him, is the lights for the house. His Unit Quasi Rents have gone way up. Suddenly he's struck by a thought: "Wait a minute! Why am I spending all this money on plane tickets?"

By the third Council meeting, everyone has noticed the big changes in Vince. Not only is he more confident, because he now has Unit Quasi Rents as big as Bob Penny, everyone also knows he's got a new house in Anchorage, and a new airplane. He's flying himself to the meetings.

Jim Balsiger is concerned. He looks across the room at Vince. "I don't know how he does it," he thinks. "I've got to get to an economist."

Dr. Scott is already taken. Jim goes to consult another economist - any other economist. He says, "I don't really understand it, but Vince says it has to do with Unit Quasi Rents."

"Unit Quasi Rents? That doesn't mean anything!" The Professor says, "That guy just spent his pension on a house in Anchorage and a new airplane! What you really need to do is increase efficiency. Look around you - you've got two guys from Anchorage and five guys from Juneau. What you guys from Juneau should do, is all pitch in and buy Chris Oliver a house. Then meet in Juneau! That's rational."

That is what they decide to do. Chris is happy. **Who wins, who loses?**

> Jim Balsiger, Dave Benton, Stephanie Madsen, Kevin Duffy, Rich Preston all live in Juneau - win.
>
> Dennis Austin, John Bundy, Dave Fluharty, and Roy Hyder all can fly to Juneau cheaper than Anchorage - win, but they aren't happy about the food in Juneau.
>
> Robin Samuelsen and Stosh Anderson have to pay more to go to Juneau, but then, they get to visit the Governor more often - win.
>
> Bob Penny doesn't care about Unit Quasi Rents. It's restful getting out of Anchorage and fishing in S.E. for a change. No big deal.
>
> Dave Hanson, Tony DeGange and Stetson Tinkham don't get to vote, anyway.

Vince is sore. He still has the houses in Juneau and Anchorage and the plane. He wants everyone to pay him back. He gets Congress to stop the NPFMC move, then goes to Atlantic States.

C-5a

AGENDA C 5(a) Comment

Alaska Crab Coalition
3901 Leary Way N.W., Suite #6
Seattle, Washington 98107
206.547.7560
Fax 206.547.0130
acc-crabak@msn.com

DATE: March 18, 2002 RC 52

TO: Ed Dersham, Chairman
Alaska Board of Fisheries

Total pages: 4

FROM: Arni Thomson, Executive Director

RE: COMMENT ON COMMITTEE A REPORT, PROPOSAL 422, ADAK RED KING CRAB MANAGEMENT PLAN

To establish a concurrent opening date of the Bristol Bay king crab fishery and the Adak red king crab fishery in order to keep the number of participants to a minimum as a stock protection measure, would be highly allocative and not sound policy for the State of Alaska. The ACC reiterates the need to set the opening date to 10 days following the closure of the Bristol Bay king crab season, so the 21 permanent LLP qualified vessels can have an equal opportunity to participate in the fishery.

- **Seven committee participants, including the ACC, PNCIAC and the City of Unalaska supported the differential opening dates, while only two participants supported the concurrent season opening date.**

- **Adopting a regulation for concurrent opening of the Adak red king crab fishery with the Bristol Bay king crab fishery will allocate almost the entire GHL to a handful of vessels that fish the adjacent Adak golden king crab fishery. A concurrent opening date will provide a special opportunity for 5 – 6 vessels to concurrently fish two king crab fisheries at the same time, while the 21 Bristol Bay qualified vessels will be denied the opportunity for a fair start in the fishery—by the same regulation.**

- **Adopting staggered season opening dates for the Adak and Bristol Bay red king crab seasons will not negatively effect the 5 – 6 golden king crab vessels, it will just provide all participants with a fair start opportunity.**

See the attachments from the NPFMC BSAI Crab Rationalization Program Alternatives, January 2002:
1. Figure 3.4-9, Western Aleutian Islands (Adak) Red King Crab Fishery; and
2. Figure 3.4-8, Western Aleutian Islands (Adak) Golden King Crab Fishery

The graphs illustrate the benefits of geographic proximity. There is a strong correlation between at least two of the top four vessels in (group #1) that have the largest catch histories in the Adak golden king crab fishery and the Adak red king crab fishery.

This is in part due to the fact that at least two of the vessels are operating in the golden king crab fishery at the time the red king crab fishery opens and they have the advantage of minimal startup costs, including an observer onboard, and geographic proximity to the Adak red king crab area.

The top four vessels in each fishery, in the NPFMC rationalization program could each share 15-25% of the king crab allocations in the Western Aleutian Islands red and golden king crab fisheries under a quota share program.

cc: Chris Oliver, Executive Director, NPFMC

The Western Aleutian Islands (Adak) Red King Crab Fishery

Figure 3.4-9 shows the distribution of harvests in the Western Aleutian Island (Adak) red king crab fishery. The distributions in this fishery follow no apparent pattern but as with the other fisheries are generally flatter in years when more vessels participated. The average harvests of the four leading vessels ranged from slightly more than 15 percent in the 1994-1995 season to 25 percent in the 1995-1996 season, when only 4 vessels participated in the fishery. Mean harvests in the fishery range from slightly more than 5 percent in 1994-1995 season to 25 percent in the 1995-1996 season.

Distribution of Harvests in the Western Aleutian Islands (Adak) Red King Crab Fishery

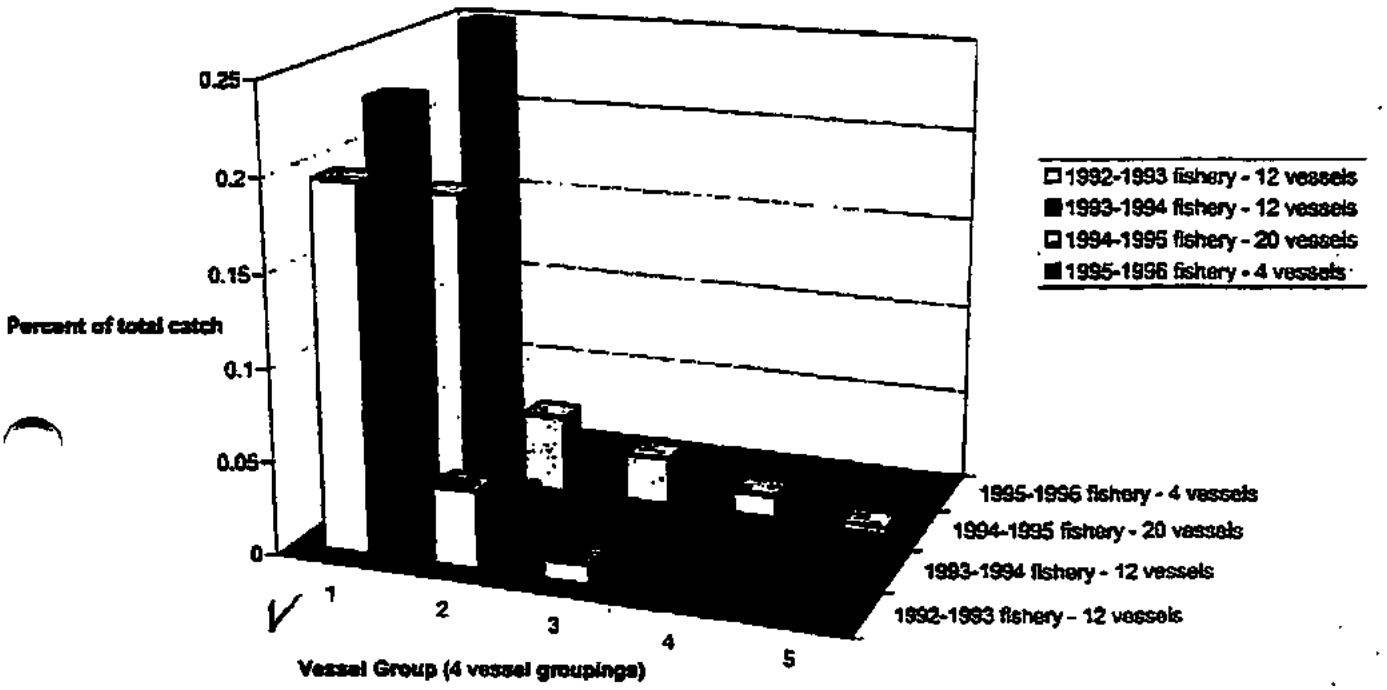

Figure 3.4-9 Distribution of Harvests in the Western AI Red King Crab Fishery

The Western Aleutian Island (Adak) Golden King Crab Fisheries.

Figure 3.4-8 shows the distribution of harvests in the Western Aleutian Island (Adak) golden king crab fishery. The distributions in this fishery have fluctuated greatly, as the number of vessels participating in the fishery has fluctuated greatly. The four leading vessels have typically harvest between 15 and 20 percent of the total harvest. In two season, however, the average harvests of these vessels was slightly more than 10 percent. In the two most recent seasons, the average harvest of the leading 4 vessels was approximately 20 percent of the total harvest. Mean harvests in the fishery range from less than than 5 percent in 1994-1995 season to over 33 percent in the 1998-1999 season, when only 3 vessels participated in the fishery.

Distribution of harvests in the Western Aleutian Islands (Adak) Golden King Crab Fishery

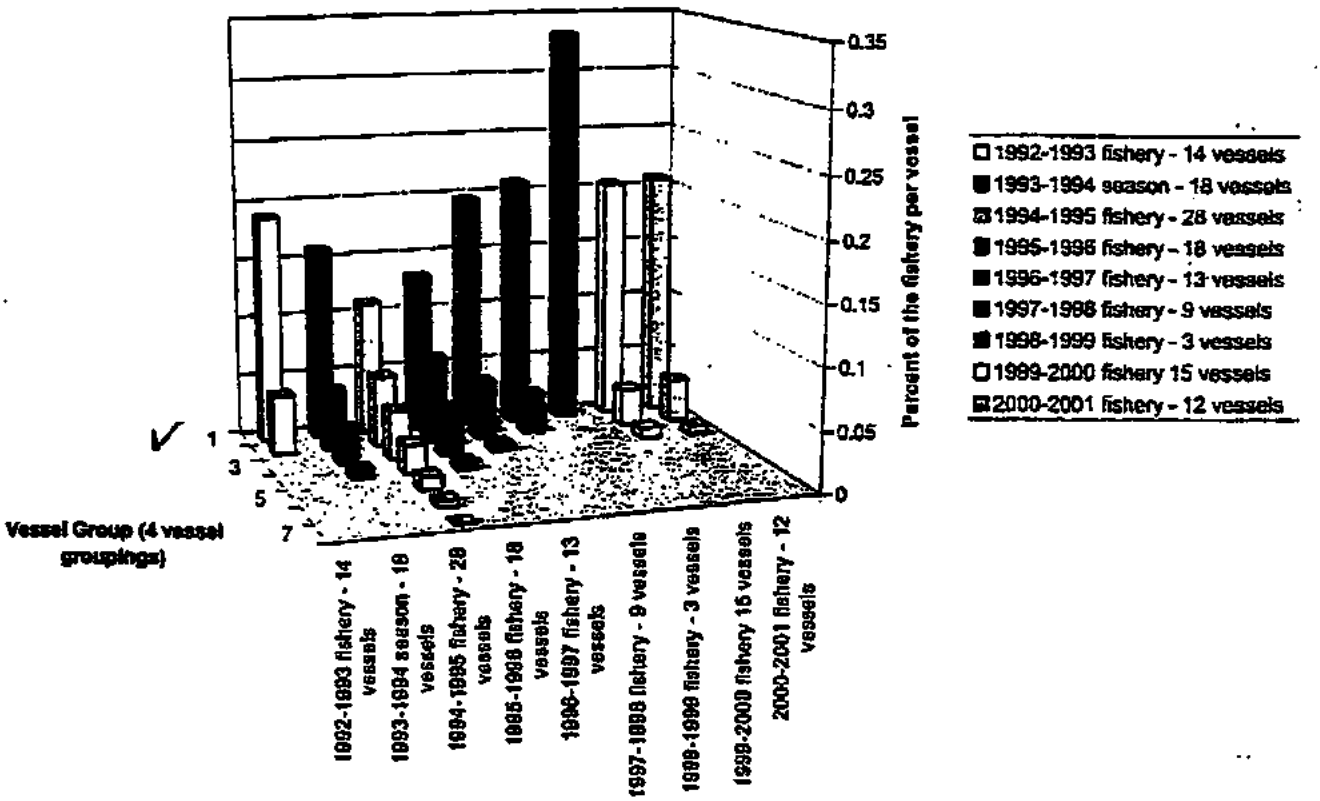

Figure 3.4-8 Distribution of Harvests in the Western Aleutian Islands Golden King Crab Fishery

RC 71

Alaska Crab Coalition
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Seattle, Washington 98107
206.547.7560
Fax 206.547.0130
acc-crabak@msn.com

DATE: March 21, 2002

TO: Ed Dersham, Chairman
Alaska Board of Fisheries

FROM: Arni Thomson, Executive Director
Alaska Crab Coalition

RE: RC 69
REQUEST FOR CONSIDERATION – SURVEY
REQUIREMENTS FOR THE ADAK RED KING
CRAB AREA FROM 172 – 179 WEST LONGITUDE

The ACC wishes to comment on the request for reconsideration of the state waters survey in the area from 172 – 179 West longitude.

The ACC requests that if the BOF takes up the Adak issue again, that allowance be made for larger boats to participate in a survey, and a commercial fishery, in the federal waters, within the area proposed for development of a state waters small boat survey and fishery.

The area under consideration is very extensive and the ACC has been informed by some of its members that most of the historic red king crab grounds within this area are in federal waters. This information was not available to the public during committee deliberations. Industry did not have time to consider a complementary federal waters survey and development of a fishery management plan and a parallel federal waters fishery. Unless a survey and a fishery in federal waters is included in this Board action, there is a strong possibility for substantial foregone harvests of king crab in this area.

The federal waters survey and fishery request are in accordance with the FMP Management Objectives 2 and 7, calling for maximum economic and social benefits to the nation over time; and to provide fisheries research, data collection and analysis to ensure a sound information base for management decisions. The request is also in accordance with National Standard 1, to achieve optimum yield; and National Standard 3, an individual stock of fish shall be managed throughout its range...

The ACC does not agree with RC 69's (Dick Powell) statement that very few persons, other than brown king crabbers will be interested in assuming the financial risks to bid on a survey in this area. ACC has at least four members with Adak red king crab LLPs with vessels greater than 100 feet in length that are interested in participating in the survey. To make the federal waters survey financially feasible for single line pot fishermen, it is recommended that the survey be conducted immediately following this fall's Petrel Bank red king crab fishery, when vessels will already have incurred their startup and observer costs, and the same observers can be used for an additional short term survey. Conducting the survey in the winter months will give preferential treatment to a handful of brown crab vessels already operating on adjacent grounds.

Thank you for your consideration.

C-5

City of Atka

City Office: P.O. Box 47070 ❋ Atka, Alaska 99547 ❋ Phone:(907)839-2233 ❋ Fax: (907)839-2234
Administrator: P.O. Box 765 ❋ Unalaska, Alaska 99685 ❋ Phone:(907)581-6226 ❋ Fax: (907)581-6317
E-mail: atka2@arctic.net

April 2, 2002

David Benton
Chairman
North Pacific Fisheries Management Council
605 West 4th Avenue
Anchorage, Alaska 99501-2252

RE: Crab Rationalization

Dear Chairman Benton:

It is my understanding that there are a number of proposals meant to address rationalization of the crab industry. Some of these proposals could eliminate any future participation by the community of Atka in the crab industry.

Atka has not in the past been able to participate in the crab industry due to isolation and lack of infrastructure. The Community Development Quota (CDQ) program has provided infrastructure to enable residents of Atka to participate in the commercial halibut fishery. The small local shore-based plant must diversify operations in order to provide the village with a stable economic base using what is available around the island of Atka.

The Aleutian Pribilof Islands Community Development Association (APICDA) has future plans for expanding operations of Atka Pride Seafoods to include crab. Proposals that restrict participation in the industry by the people who live in the area are unjust and unreasonable. The City of Atka supports the proposal of APICDA that reads as follows:

> *"Any limitation of future crab processing entities, whether as a result of crab processor quota shares, the formation of cooperatives, or some other limitation, shall not apply to a CDQ community that does not have a shore side crab processing facility, providing the crab processing facility constructed is owned at least fifty percent by the CDQ group representing that community."*

Thank you for your consideration.

Sincerely,

Julie Dirks

Julie Dirks
City Administrator

Cc: Atka City Council
APICDA

C-5
Walt Christiansen

Deep Sea Fishermen's Union of the Pacific

5215 Ballard Avenue N.W.
Seattle, Washington, 98107
Phone: (206) 783-2922
Fax: 783-5811

Established 1912

April 2, 2002

Chairman David Benton
North Pacific Fishery Management Council
605 West 4th. Avenue, Suite 306
Anchorage, AK 99501-2252

Dear Chairman Benton,

On behalf of the 300 plus members of the Deep Sea Fishermen's Union of the Pacific (DSFU) we want to thank you for the appointment of Beau Bergeron, our Executive Director, to the Council's IFQ Implementation and Cost Recovery Committee. Beau will bring a deep skill set and dedication to the committee.

DSFU is an independent union and the oldest organization of crewmen and skippers in the North Pacific. It was founded in 1912 and is composed of longliners who fish primarily in the Gulf of Alaska and the Bering Sea. Many of our members worked aboard vessels during the qualifying years for the original Individual Fish Quota (IFQ) process and allocation.

The Union and its members were very active in the development and implementation process. It is truly unfortunate, especially in retrospect, that crew members did not receive any initial allocation. Discussions about this aspect of IFQ inappropriately replied to crew members as "ancillary to the operation" and a potential source of "bookkeeping nightmares." Both categorizations were false and demean the absolutely essential role we play as well as the continuing professionalism exhibited by Union members.

Since that time, many crewmembers have invested heavily in IFQ purchases in order to regain the immense amount of collective bargaining ability we lost with the implementation of this system. Our Union is uniquely qualified to comment on the IFQ process and its impact on crew members (working fisherman) and the fishery. The

Captain and Crew Quota Ownership provision in the Crab Rationalization effort is an opportunity not available to us at the onset of IFQ.

With Crab Rationalization we now, collectively, have the opportunity to lean from our experience and ensure this provision is included in the program. Captain/Crew Quota Ownership Share fosters job security, stability of the market and protects the fishery. DSFU is fully and enthusiastically supportive of the inclusion of the Captain/Crew Quota Ownership Share in the Crab Rationalization proposal.
Thank you in advance for your consideration. Additionally, we will certainly be available to the Council and the Advisory Panel to lend our insight and experience to what we feel is an extremely important part of this program.

Sincerely,

Pat Hunter

Pat Hunter
President

Not handed out - Didn't appear

C-5 //

P. O. Box 2601
Homer, AK. 99603
USA

Fax (907)-235-7670

April 11, 2002

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

Mr. Chairman and Council Members.

Having read testimony from the congressional hearings on IFQ's, I'm mad enough to bite the heads off a keg of rusty nails. Let's not beat around the bush, don't believe for a second that the IFQ hearings in Washington, D.C. presented a balanced or representative view of the program. Some elements concerning IFQ's and processor views need clarification, and you need to be aware of where most fishermen really stand. I'm a 20-year resident commercial fisherman from Homer, Alaska. Two decades ago I started on the deck of the esteemed Oscar Dyson's, Peggy Jo. I've fished from southeast to Nome, seined for salmon and herring, crabbed and longlined, owned and ran a Bristol Bay operation for 16 years. I currently own and run a 32-foot boat fishing for halibut, employing my family and others from Alaska as crew members. I know of what I speak.

First: No processor IFQ's. They just want another AFA, or some method so they can own the fishermen. I'm getting the distinct impression the deck's getting stacked against folks like myself. You hear fishermen back processor IFQ's? Here's the back room deal. I have a friend with a 58-foot dragger and a major processor tells him, "You back us on processor IFQ's and when you're ready to get out we'll buy your boat and your fishing rights". Well, this friend of mine is going to retire in 5 years and that sounds appealing. He doesn't think about the next generation, he just wants his retirement plan. The same scenario is being played out with crab. Probe below the surface of the supposed support by fishermen for processor quota and this is what you will find. But where does that put the new entrants or remaining fishermen 15 years from now? Fishermen will be nothing more than indentured servants. The fishery will be owned by a few big operators and the rest of us are cheap labor.

I've bought into this IFQ program, as has my crew. No big windfalls here. Put up my house, boat, pile of cash, and several loans to participate. Does the program work? You bet. Best innovation in Alaska fisheries in the last 100 years. And I can provide a long list of small boat owners like myself who agree. Interestingly enough, a whole pile of them from Kodiak, a town which originally hated the IFQ idea. You'll find a vastly different sentiment in Kodiak today.

Back to the detractors. Of course the processors hate the IFQ program. They're still back in the 1880's, wanting to own the fishermen and sell frozen halibut and canned salmon complete with skin and bones, a leftover product of a bygone era.

I see Mr. Hoard, from Icicle, claiming 100% of the value of the IFQ fishery went to the harvesting sector. Did he say that with a straight face? Last time I checked every pound of halibut and sablefish comes across a dock and has to be bought or handled by a processor before it goes to the next link in the chain. Icicle has a plant in Seward, the number 2 port for IFQ landings. Petersburg, a major southeast port, is home territory for Icicle. What's stopping them from

buying until their heart's content in either port? Homer, where Icicle had a plant, is the number 1 port for IFQ deliveries. After a plant fire Icicle chose not to rebuild in Homer. However, an IFQ fisherman came in and put up The Fish Factory, invested hundreds of thousands of dollars in a fine, small processing facility 200 feet from where the old Icicle plant stood. Invested money right here. Created jobs right here. Icicle? They used the insurance money from the burned Homer plant to buy into Bering Sea pollock via the Northern Victor, a floating processor. Interestingly Icicle fought the AFA tooth and nail until they bought into the club. Voila, suddenly it's a wonderful program. And how much good does their pollock operation do for any coastal community? Well, I see their processor every summer anchored in Beaver Inlet, well south of Dutch Harbor, probably avoids a town fish tax, 2 or 3 big trawlers delivering to them. Those boats effectively have no choice, have to deliver to Icicle. Workers aboard the processor can't readily get to town, and 3 guys on each dragger who can't wait to get out of Dutch. So the bulk of the proceeds stay off the beach, hardly anyone goes to town and at the end of the season they all go south. You tell me how much good that does for our coastal communities?

The bottom line with respect to the current IFQ program is: the lay of the land has changed and our traditional processors don't like it, and unless they can get another AFA, don't want to play a new game; they're rather fond of the "my way or the highway" approach. See what that's done for the salmon business? Icicle and their cohorts want it like it was during the halibut derbies, which was only about a 10 year period in this 125 year commercial fishery. The fishermen really had no choice then. The big processors were the only game, primarily only those with big freezer capacity participated, effectively freezing out the small buyer. They sold fresh fish for 10 days a year, stuck the rest in the freezer and doled it out for 11 1/2 months. The Matulich Study is seriously flawed in this area. Considering the 6 years prior to the IFQ program as the norm is a joke. The derbies were an abberration, an anomaly, the end result of a system which became flawed. (You suppose getting $250,000 + from the processors for the study influenced the outcome of Dr. Matulich's work)? The IFQ program on the other hand makes sense from a biological, market, and safety standpoint. It is much easier to manage with far less waste. People want fresh fish and can get it 8 months out of a year, not just a few days. Undoubtedly, the current fishery is much safer than the derbies. The IFQ program provides all these benefits. It works. The one serious innovation the program could use,where biologically feasible, is moving towards a year-round fishery. Interestingly enough, it is our tradition-bound processor contingent leading the opposition to this idea.

At the hearings, I see no testimony from the regular fisherman. No one like myself, a purely independent operator who happens to think the IFQ program has more attributes than flaws. Yet we make up the bulk of the IFQ fleet. Mr. Hoard speaks to footing the bill for the lost opportunities in the halibut and sablefish business. Did anybody ask him to elaborate? Or did everyone just nod their head in assent? If they've lost opportunity it's because they refuse to participate. Obviously, the major processors hate to bid for fish. They want leverage, guarantees, indebtedness, whatever it takes to make fishermen deliver to them. Interestingly, several of the "major" processors were founded by upstart fishermen, but today these same processors want to make sure this never happens again by having a closed class for themselves. They own facilities in the middle of richest fishing grounds in North America and they don't get product, get left out? Last time I checked it was easy to get product--open up the wallet. All that fish is passing right under their nose, where many have, or had operations. That's equivalent to me whining I have no opportunity to catch a fish while 60 milion pounds of Alaskan halibut is caught all around me. Ridiculous. We watched Icicle all my years in Bristol Bay. They came in looking good in 1979, a new concept, innovators, floating processors. But the innovation seemed to stall right there, and slowly but surely, like an aging athlete they lost their edge, became unresponsive, heavy with

middle management, no one could give you a direct answer. For the most part, price paid for product began to lag year after year. By 1996, my last year, a large portion of their Bristol Bay salmon fleet fished for them because of inertia or they had to, owed them money. Not to just pick on one outfit, the feeling was similar with other major processors. They failed to evolve, unlike some processors, those that ran leaner with fewer people, less service but higher prices for fish. That's where a lot of fishermen migrated. Same with the IFQ program. Many fishermen don't put a lot of stock in company jackets and hats, a company barbecue, or an expediter with rides to the airport. Pay me the price and I'll buy my own hat. Get rid of that company driver, save yourself some bucks, and I'll catch my own ride. Many processors remain cumbersome and stodgy, and rather than lose some bulk and get in shape, they want you to promise them a steady diet of bon bons in the form of guaranteed fishermen and product, and no new entrants in the processing arena if possible. I hope you maintain a hearty skepticism when speaking with these processors and their representatives.

If the only voices you hear or listen to are those of the "big dogs", then you've left out a formidable number of Alaskan citizens and fishermen. I do not wish ill luck on the processors. I would rather brag about them as leaders and innovators in my industry. I know many fine folks who work for various processors, but the looming spectre of tying me or any other fisherman to a specific processor is an onerous and chilling prospect. What it boils down to from the processor's desired angle is "you can own your quota, but we'll own you". I truly hope you will be an advocate for the industry as a whole, which includes numerous fishermen like myself, and consider us when making your decisions. We are the fiber of Alaskan coastal communities.

An aside I just learned a few days ago. You are probably aware of the new plan in Chignik for salmon. Are you aware that some fishermen hope to bring in a small processor owned by Ray Wadsworth (raised in Seldovia), a longtime Alaskan fisherman. Ray also invented a machine to extract pin bones from salmon fillets. The idea is to have high quality, vacuum bagged, boneless sockeye fillets. Maybe it'll work, maybe it won't. Well, Norquest, a Chignik processor, has been posturing, warning "their" boats should any of them attempt to sell any fish to this upstart operation. Now I don't have anything against Norquest, know and like several of the principal owners, but you can see the problem. Norquest figures that when they bought into Chignik, they also received a guaranteed portion of the fleet. Now somebody may upset, what is to their way of thinking, their franchise rights. There is a lot of pressure on fishermen to remain "in bounds", and not supply any new operation with product. Let's remember, Norquest began with a bunch of upstarts who left Icicle. We do need new and radical thinking in Alaska salmon fisheries, but here is a prime example of why limiting processors may limit innovation. So set up a situation where new entrants are locked out of processing, or boats are tied to a processor and you take a big step backwards. Talk to folks, if they're not too intimidated, in Sand Point about Trident, effectively the only market in town. Residents operate with the constant reminder of retribution if they don't toe the line. Those people might as well be Appalachian coal miners from 1920, owing their soul to the company store. Anyone can appreciate Chuck Bundrant's ability to build a power house business. I'd not kick him in the shins over that. But remember, he was once an upstart fisherman too, figured he might rather try things his way instead of selling to the same old outfit. Don't close that same door in face of future generations.

Sincerely,

David Whitmire

Jon Casey
C-5

Alaska Fisheries Conservation Group

BSAI crab vessel owners from Washington, Oregon and Alaska

Box 910 Woodinville, WA 98072 (206) 849-6752 Fax (425) 823-3964

Proposed Revisions to Bering Sea Crab Rationalization Alternatives (March 2002)

ISSUE ONE:

Problem Statement on Page 1: Remove *"Bycatch and its associated mortalities and landing deadloss."*

Justification: National Standard 8 in MSA'96 requires that "*conservation and management measures minimize, to the extent practicable, bycatch and the mortality of bycatch and the mortality of bycatch that cannot be avoided.*"

ADFG Regional Report #4K00-61 shows that

A. Female snow crab have accounted for less than one percent of all snow crab bycatch.

B. 94% of snow crab bycatch were legal males greater than 3.1-inches in carapace width.

C. Snow crab bycatch will continue to be dominated by mature males greater than 3.1-inches in carapace width.

D. ADFG's best estimate of snow crab bycatch mortality is 25% because of concerns over freezing of crabs resulting from wind-chill exposure during the winter crab fishery.

E. If 25% was a reasonable estimate, you would expect to see a comparable degree of deadloss from deliveries in Dutch Harbor and Saint Paul during the same period.

F. Note: the Alaska Board of Fisheries was petitioned by a Bering Sea crab fisherman last October to shut down the winter fishery in January and, instead, open the Opilio fishery in April. The Board turned him down by a unanimous vote 7-0.

Instead, the 2001 Crab SAFE indicates on Page 47 that snow crab deadloss in the period 1990-1998 averaged only 1.3%.

Likewise, the 2001 SAFE also reports on Page 47 that *"observer data collected during 1998 and 1999 snow crab seasons indicate that sorted bycatch typically is returned to the sea in less time than the 5-minutes that crabs were exposed to wind chill during the laboratory study."*

Page 50 of the 2001 SAFE shows that snow crab bycatch mortality as a percent of abundance averaged less than one-half of 1 percent from 1994-1999.

Conclusion: Bycatch and bycatch mortality in the snow crab fishery is minimized to the extent practicable. Therefore, it should not be used as a legitimate purpose for rationalization.

ISSUE TWO

Effect of the crab buyback program on current BSAI crab fleet size: On Page 11 of the Crab Rationalization Document under Alternative 1 add

> *"NMFS estimates that the Crab Buyback Program, alone, will permanently eliminate 60-vessels in 2002."*

-End-

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Calendar No. 422

104TH CONGRESS 2d Session	SENATE	REPORT 104–276

SUSTAINABLE FISHERIES ACT

REPORT

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ON

S. 39

MAY 23, 1996.—Ordered to be printed

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Agreements (PIAFAs). Specifically, it would authorize the Secretary of State to negotiate and enter into a PIAFA at the request of, and with the concurrence of, the Governor of a Pacific Insular Area to allow foreign fishing within the EEZ adjacent to that Pacific Insular Area. The Western Pacific Council would act on behalf of Pacific Insular Areas for which there is no Governor.

PIAFAs: (1) would be required to provide for observer coverage; (2) would not be subject to provisions of section 201 of the Magnuson Act related to the calculation of total allowable levels of foreign fishing; (3) could not exceed three years in duration nor supersede any GIFA; and (4) could not be negotiated with a nation that is in violation of any GIFA. Fees collected under a PIAFA may be in excess of administrative costs and would be used for fishery conservation and management purposes in the Pacific Insular Area to which the agreement pertains.

Prior to entering into a PIAFA, the Governor of a Pacific Insular Area, in concurrence with the Western Pacific Council, would develop a three-year conservation and management plan for which funds generated from the agreement would be used. Funds could also be allocated for other marine and coastal-related uses but only after conservation and management costs have been met. The expenditure of funds generated by a PIAFA is intended to benefit the people and resources of these western Pacific areas and in doing so benefit the Nation.

Section 106(e) would amend section 205(a) of the Magnuson Act dealing with import prohibitions to require certification by the Secretary of State of any foreign nation that fails to enter into an international bycatch agreement. As amended, section 205 would require the Secretary of the Treasury, upon receipt of such a certification, to impose trade sanctions on fish and fish products from the foreign nation involved.

Section 106(f) would amend section 206(e) of the Magnuson Act on large-scale driftnet fishing to eliminate duplicative annual reporting requirements.

Section 107.—National Standards

Section 107 would amend section 301(a) of the Magnuson Act to modify and expand upon the national standards for conservation and management with which fishery management plans and regulations must be consistent. Section 107(a) would amend national standard five to require conservation and management measures, where practicable, to "consider" efficiency, rather than "promote" efficiency. In the past, this national standard has been used to, among other things, justify ecologically wasteful, but economically efficient practices such as roe stripping. The goal of this amendment is not to eliminate efficiency as a consideration in the development of plans and regulations, but rather to ensure that it is balanced with the requirements of other national standards.

Section 107(b) would add three new national standards at the end of section 301(a) of the Magnuson Act. New national standard eight would require that conservation and management measures take into account the importance of the harvest of fishery resources to minimize (to the extent practicable) adverse economic impacts on, and provide for the sustained participation of, fishing commu-

nities, but would prevent such measures from having an economic allocation as their sole purpose. This standard is not intended to constitute a basis for allocating resources to a specific fishing community or provide preferential treatment based on residence in a fishing community. As clearly stated in existing national standard four, conservation and management measures shall not discriminate between residents of different States, and any necessary allocation or assignment of fishing privileges must be fair and equitable to all fishermen. This standard also is not intended to be used as a basis for circumventing conservation requirements.

New national standard nine would require that conservation and management measures minimize, to the extent practicable, bycatch and the mortality of bycatch which cannot be avoided. The priority for reducing bycatch under the new standard would be to minimize or avoid catching bycatch species where possible. Fish that are bycatch and cannot be avoided should, to the extent practicable, be returned to the sea alive. The Committee anticipates that ecological interrelationships of fish species in the ecosystem will be an important consideration in determining the practicability of minimizing bycatch.

New national standard ten would require that conservation and management measures promote the safety of human life at sea. The Committee recognizes that commercial fishing is a difficult and sometimes hazardous occupation and encourages efforts to protect crew safety. However, the standard is not intended to give preference to one type of management system over another. To reiterate, existing national standard four states that conservation and management measures shall not discriminate between residents of different states, and any necessary allocation or assignment of fishing privileges must be fair and equitable to all fishermen. In addition, national standard five states that no conservation and management measure shall have an economic allocation as its sole purpose.

Section 108.—Regional Fishery Management Councils

Section 108 of the reported bill would amend section 302 of the Magnuson Act which establishes the eight Councils and procedures for their operation and administration. Section 108(a) would make a number of changes to the Council's makeup. With respect to the Mid-Atlantic Council, this section would add two positions for North Carolina to the Council membership increasing the number of voting members from 19 to 21 and increasing the number of members appointed by the Secretary from 12 to 13. The amendment, though, would not expand or change the geographical or ocean area for which the Mid-Atlantic Council has authority.

With respect to the Pacific Council, this section would increase the number of voting members from 13 to 14 and require the appointment of a voting member who represents an Indian tribe with Federally-recognized fishing rights from California, Oregon, Washington, or Idaho.

With respect to Atlantic highly migratory species (HMS), subsection 108(a)(7) would move the existing authority in section 304(f)(3) of the Magnuson Act (giving the Secretary management authority for such fisheries) to section 302(a). The language is iden-

PROPOSED SEASON DATE CHANGE FOR THE SNOW CRAB FISHERY REPORT TO THE ALASKA BOARD OF FISHERIES

RC47

Regional Information Report No. 4K00-61

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

October 2000

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carapace width (CW) smaller than the 4-in CW industry standard for retention. So, although relatively few female and sublegal male snow crab were captured during the snow crab fishery, the annual estimated percentage of legal-sized males that were captured but not retained during 1994-1999 ranged from 25% to 40%. Nearly 100% of the non-retained male snow crab that have been captured during the commercial fishery were morphologically mature, regardless of size (R.S. Otto, NMFS Kodiak, *pers. comm.*) Bycatch of female snow crab, which have accounted for less than 1% of the snow crab bycatch, has also been dominated by mature animals.

The 2000 snow crab open-access season was delayed until April and prosecuted under a greatly reduced guideline harvest level of 28.5 million pounds. Observer data indicates that 4.5 million crabs, roughly 17% of all snow crabs captured during the fishery, were discarded during that season. An estimated 94% of those discarded crabs were non-retained legal males ≥ 3.1-in CW, indicating that 16% of captured legal males were not retained for processing. The lower bycatch rate observed during the 2000 snow crab season is likely due to the low abundance of male snow crab < 4-in CW as estimated from the 1999 National Marine Fisheries Service eastern Bering Sea trawl survey (Stevens, et al. 2000). The lower bycatch rate in the 2000 season may also be attributable to an exploitation rate on legal males ≥ 4-in CW that was roughly 1/3 of that used in earlier seasons.

Although the current escape mechanisms should allow for reduced bycatch relative to that seen under prior regulations, there has been no opportunity to evaluate the bycatch levels during the commercial fishery under those new regulations. It should be noted that there are other factors besides escape mechanisms that are important in affecting bycatch rates. Those factors include: the guideline harvest level; the areas fished; soak times used; industry choices on minimum size for retention of legal-sized males; and the abundance of the portion of the population targeted by the directed fishery relative to the abundance of the portion that occurs as bycatch. Regardless of the magnitude of bycatch that will occur under the current escape mechanism regulations, distribution patterns indicate that the snow crab bycatch will continue to be dominated by mature males ≥ 3.1-in CW.

Snow Crab Bycatch Mortality Issues

Analysts for A Rebuilding Plan for the Bering Sea *C. opilio* Stock (NPFMC 2000) used 25% as a "best estimate" for the bycatch mortality rate during the snow crab fishery under the current fishery conditions; i.e., the analysts assumed that 25% of bycatch snow crab captured during the snow crab fishery die as a direct result of handling and discarding. Those analysts assumed that bycatch mortality in the snow crab fishery was higher than in any other Bering Sea crab fisheries. In large part, their assumption of higher bycatch mortality in the snow crab fishery was due to concerns over freezing of crabs resulting from wind-chill exposure during the winter snow crab season. As discussed below, however, the actual short- and long-term effects due to handling on the survivorship of bycatch snow crab during the snow crab fishery remain unknown.

The effects on survivorship due to handling undoubtedly vary among crabs of different sizes and shell ages. Effects also vary due to the conditions particular to each vessel, due to sorting facilities and methods of vessels, and due to prevailing wind and temperature conditions. Factors that can affect survivorship of bycatch crabs include injuries due to impact and tearing and freezing due to extreme cold or to wind-chill at less extreme temperatures. Injuries to the shell can increase susceptibility to infection or to predation by sand-fleas. Time of aerial exposure on deck prior to

Stock Assessment and Fishery Evaluation Report
for the
KING AND TANNER CRAB FISHERIES
of the
Bering Sea and Aleutian Islands Areas

2001 Crab SAFE

Compiled by

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BSAI Crab Bycatch

prepared by Dave Witherell, NPFMC staff

What is bycatch?

Bycatch of crab occurs in the directed crab pot fisheries and other fisheries, including groundfish and scallop fisheries. In the crab fisheries, crab bycatch includes females of target species, sublegal males of target species, and non-target crab. In all other fisheries, crabs are a prohibited species, so every crab caught incidentally is considered bycatch.

How many crabs are taken as bycatch?

The following tables show the numbers of crab taken as bycatch in these fisheries.

Bycatch of *C. opilio* crabs (numbers of crab) in Bering Sea fisheries, 1994-2000.

Year	directed crab pot	groundfish trawl	groundfish fixed gear	scallop dredge	Total
1994	53,082,564	12,351,899	130,228	34,866	65,599,557
1995	48,734,000	5,165,555	230,233	0	54,129,788
1996	56,570,785	3,643,612	267,395	104,836	60,586,628
1997	75,005,446	5,276,208	554,103	195,345	81,031,102
1998	51,591,453	4,122,648	549,139	232,911	56,496,151
1999	41,666,447	1,544,747	269,778	150,421	43,631,393
2000	4,166,000	2,207,279	n/a	105,602	n/a

Bycatch of St. Matthew blue king crabs (numbers of crab) in Bering Sea fisheries, 1994-2000.

Year	directed crab pot	groundfish trawl	groundfish fixed gear	scallop dredge	Total
1994	3,848,080	1,193	6	0	3,849,279
1995	confidential	2,725	47	0	n/a
1996	1,699,333	168	574	0	1,700,075
1997	confidential	8	187	0	n/a
1998	confidential	0	774	0	n/a
1999	na	0	4,983	0	n/a
2000	na	0	0	0	n/a

Bycatch of Bristol Bay red king crabs (numbers of crab) in Bering Sea fisheries, 1994-2000.

Year	directed crab pot	groundfish trawl	groundfish fixed gear	scallop dredge	Total
1994	18,600	280,096	927	22	299,645
1995	0	44,934	3,257	0	48,191
1996	605,000	30,967	75,675	0	711,642
1997	985,000	50,711	25,579	0	1,061,290
1998	4,593,800	42,003	7,017	146	4,642,966
1999	932,500	84,709	8,968	1	1,026,178
2000	1,543,000	70,787	39,754	2	1,653,542

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Bycatch of *C. bairdi* crabs (numbers of crab) in Bering Sea fisheries, 1994-2000.

Year	directed crab pot	groundfish trawl	groundfish fixed gear	scallop dredge	Total
1994	19,003,200	2,496,761	48,221	245,000	21,793,182
1995	15,897,300	2,212,181	87,674	0	18,197,155
1996	4,588,000	1,836,031	279,560	17,000	6,930,591
1997	4,865,900	1,917,736	50,218	28,000	6,861,854
1998	4,293,800	1,477,816	46,552	36,000	5,854,168
1999	*	901,619	43,220	*	*
2000	343,000	1,002,074	140,453	53,614	1,539,141

Do all these crabs die?

Crab Fisheries

Some crabs taken as bycatch die due to handling mortality. Several laboratory and field studies have been conducted to determine mortality caused by handling juvenile and female crab taken in crab fisheries. There are a variety of effects caused by handling, ranging from sublethal (reduced growth rates, molting probabilities, decreased visual acuity from bright lights, and vigor) to lethal effects. Studies have shown a range of mortality due to handling based on gear type, species, molting stage, number of times handled, temperature, and exposure time (Murphy and Kruse 1995). Handling mortality may have contributed to the high natural mortality levels observed for Bristol Bay red king crab in the early 1980's (65% for males and 82% for females), that along with high harvest rates, resulted in stock collapse (Zheng et al. 1995). However, another study concluded that handling mortality from deck impacts and temperature was not responsible for the decline on the red king crab fishery (Zhou and Shirley 1995, 1996).

Byersdorfer and Watson (1992, 1993) examined red king crab and Tanner crab taken as bycatch during the 1991 and 1992 red king crab test fisheries. Instantaneous handling mortality of red king crab was <1% in 1991, and 11.2% in 1992. Stevens and MacIntosh (1993) found average overall mortality of 5.2% for red king crabs and 11% for Tanner crabs on one commercial crab vessel. Authors recommend these results be viewed with caution, noting that experimental conditions were conservative. Mortality for red king crab held 48 hours was 8% (Stevens and MacIntosh 1993, as cited in Queirolo et al. 1995). A laboratory study that examined the effects of multiple handling indicated that mortality of discarded red king crabs was negligible (2%), although body damage increased with handling (Zhou and Shirley 1995).

Delayed mortality due to handling does not appear to be influenced by method of release. In an experiment done during a test fishery, red king crab thrown off the deck while the vessel was moving versus those gently placed back into the ocean showed no differences in tag return rates (Watson and Pengilly 1994). Handling methods on mortality have been shown to be non-significant in laboratory experiments with red king crab (Zhou and Shirley 1995, 1996) and Tanner crab (MacIntosh et al. 1996). Although handling did not cause mortality, injury rates were directly related to the number of times handled.

Mortality of crabs is also related to time out of water and air temperature. A study of red king crabs and Tanner crabs found that crabs exposed to air exhibited reduced vigor and righting times, feeding rates (Tanner crabs), and growth (red king crabs) (Carls and Clair 1989). For surviving females, there was no impact on survival of eggs or larvae. Cold air resulted in leg loss or immediate mortality for Tanner

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crabs, whereas red king crabs exhibited delayed mortality that occurred during molting. A relationship was developed to predict mortality as the product of temperature and duration of exposure (measured as degree hours). Median lethal exposure was -8oC for red king crab and -4.3oC for Tanner crab. For example, if crabs were held on deck for 10 minutes and it was -23oC (10 degrees below zero Fahrenheit) outside, about 15% of the king crab and 50% of the Tanner crab would die of exposure. Because BSAI crab fisheries occur from November through March, cold exposure could cause significant handling mortality to crabs not immediately returned to the ocean. Zhou and Shirley (1995) observed that average time on deck was generally 2 to 3 minutes, and they concluded that handling mortality was not a significant source of mortality.

Further research has indicated that windchill may be an important mortality factor. In 1997, a laboratory study examined the effects of cold windchill temperature on mortality, limb loss, and activity (righting response) for sublegal sized male Tanner crabs (Zhou and Kruse, 1998, Shirley 1998). The study found significant inverse relationships between windchill and crab mortality, limb loss, and activity. Crabs were exposed to combinations of temperatures and wind speeds for a duration of 5 minutes, then placed in seawater tanks and held for 7 days. Zhou and Kruse (1998) found that virtually all crabs died when exposed to windspeeds greater than 7.7 m/s (15 nautical miles per hour) and air temperatures less than -10.4oC (13.3oF). Stronger winds, even at warmer temperatures (but still below freezing), can have the same effect. Shirley (1998) estimated that 50% of the crabs would die in windchill temperatures of -11oC (this windchill temperature can result from air temperatures of 21oF and wind speeds of 30 nautical miles per hour). He concluded that "The effects of windchill on sublegal Tanner crabs is dramatic, and undoubtedly results in decreased recruitment to adult stocks".

On the other hand, there is evidence from the fishery itself that windchill during the snow crab fishery may not be as important a mortality factor as would be expected from the laboratory study on Tanner crabs (Shirley 1998) and prevailing weather conditions. The primary evidence in this regard is the low rate of deadloss that occurs during the snowcrab fishery. The snow crabs that are delivered to processors are generally subjected to the similar windchill exposures before being sorted on deck and deposited into the holding tank as are non-legal snow crabs and Tanner crabs before they are sorted and discarded. Data collected by onboard observers during the 1999 snow crab fishery indicate that bycatch crabs generally are not exposed to the air any longer than the retained catch (D. Tracy, ADF&G, pers. comm). The effects of windchill on snow crabs have not been directly studied. It would, however, be expected for retained legal snow crabs (males, generally > 101 mm CW) to show similar effects due to windchill as bycatch Tanner crabs due to the morphological similarity of snow and Tanner crabs and because bycatch Tanner crabs also tend to be males > 101 mm CW (D. Tracy, ADF&G, pers. comm). Because snow crabs are typically kept in holding tanks for one to three weeks prior to offloading at processors (R. Morrison, ADF&G, pers. comm.), high rates of deadloss would be expected in the deliveries if on-deck wind chill exposure resulted in mortality rates comparable to those experienced by Tanner crabs in the laboratory study. Commercial catch statistics from the 1990 through 1998 snow crab seasons, however, indicate that the annual deadloss averaged only 1.3% of the total delivered snow crabs and ranged from 0.7% to 2.0%. Such low rates of deadloss, despite the low temperatures and high winds that can occur in the Bering Sea during the snow crab fishery, may be reflective of features of fishing vessels and fishing practices that serve to protect captured and sorted crabs from windchill exposure. Shelter decks, storm walls, use of totes, and leeward alignment of vessels during gear retrieval, for example, would tend to protect crabs from windchill exposure during sorting. However, these low rates of dealoss are averages from throught the season. Higher rates of deadloss may be found in crab deliveries made during periods following more severe weather conditions. Additionally, observer data collected during the 1998 and 1999 snow crab seasons indicate that sorted bycatch typically is returned to the sea in less time than the 5 minutes that crabs were exposed to windchill during the laboratory study (D. Tracy, ADF&G, pers. comm). Data on limb autotomies collected from bycatch Tanner crabs by onboard observers during the

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OCTOBER 2001: ALASKA BOARD OF FISHERIES REFUSES TO MOVE OPI SEASON TO APRIL

1999 snow crab season also indicate that the effects of windchill in practice is less than that predicted from laboratory studies and prevailing weather. Examination of 1,718 bycaught *bairdi* prior to discarding during the 1999 season indicates a limb autotomy rate of only 0.3% -- well below the limb autotomy rates observed in the laboratory study for windchills associated with high mortality rates. In summary, although it has been conclusively shown that windchill can effect high rates of mortality in Tanner crabs, there is also evidence that exposure of captured crabs to such windchill may not be common during actual fishing. Laboratory experiments on the effects of windchill on snow crabs are currently being conducted (Shirley, pers. comm.).

Trawl Fisheries

The effect of crab bycatch on crab stocks is somewhat tempered by survival of discarded crabs. There have been numerous studies conducted on crab bycatch mortality, with each study having different objectives, methodology, and results. A summary of these studies is provided below, but many questions remain unanswered. Stevens (1990) found that 21% of the king crabs and 22% of the Tanner crabs captured incidentally in BSAI trawl fisheries survived at least 2 days following capture. Blackburn and Schmidt (1988) made observations on instantaneous mortality of crab taken by domestic trawl fisheries in the Kodiak area. They found acute mortality for softshell red king crab averaged 21%, hard shelled red king crab 1.2%, and 12.6% for Tanner crab. Another trawl study indicated that trawl induced mortalities aboard ship were 12% for Tanner crab and 19% for red king crab (Owen 1988). Fukuhara and Worlund (1973) observed an overall Tanner crab mortality of 60-70% in the foreign Bering Sea trawl fisheries. They also noted that mortality was higher in the summer (95%) than in the spring (50%). Hayes (1973) found that mortality of Tanner crab captured by trawl gear was due to time out of water, with 50% mortality after 12 hours. Natural Resource Consultants (1988) reported that overall survival of red king crab and Tanner crab bycaught and held in circulation tanks for 24-48 hours was <22%. In other analyses, the estimated mortality rate of trawl bycaught red king crab and Tanner crab was 80% (NPFMC 1993, 1995).

Other Groundfish Fisheries

Some crabs are caught incidentally by non-trawl gear in pursuit of groundfish, and a portion of these crabs die. No field or laboratory studies have been made to estimate mortality of crab discarded in these fisheries. However, based on condition factor information from the trawl survey, mortality of crab bycatch has been estimated and used in previous analyses (NPFMC 1993). Discard mortality rates for red king crab were estimated at 37% in longline fisheries and 37% in pot fisheries. Estimated bycatch mortality rates for Tanner crab were 45% in longline fisheries and 30% in pot fisheries. No observations had been made for snow crab, but mortality rates are likely similar to Tanner crab. In the analysis made for Amendment 37, a 37% mortality rate was assumed for red king crab taken in longline fisheries and an 8% rate for pot fisheries. Observer data on condition factors collected for crab during the 1991 domestic fisheries suggested lower mortality of red king crab taken in groundfish pot fisheries. Bycatch mortality rates used in the analysis of Amendment 37 (NPFMC 1996) for snow crabs were 45% in longline fisheries and 30% in pot fisheries.

Scallop Fishery

Observations from scallop fisheries across the state suggest that mortality of crab bycatch is low relative to trawl gear due to shorter tow times, shorter exposure times, and lower catch weight and volume. For crab taken as bycatch in the Gulf of Alaska weathervane scallop fishery, Hennick (1973) estimated that about 30% of Tanner crabs and 42% of the red king crabs bycaught in scallop dredges were killed or injured. Hammerstrom and Merrit (1985) estimated mortality of Tanner crab at 8% in Cook Inlet.

Kaiser (1986) estimated mortality rates of 19% for Tanner crab and 48% for red king crab bycaught off Kodiak Island. Urban el al. (1994) reported that in 1992, 13-35% of the Tanner crab bycaught were dead or moribund before being discarded, with the highest mortality rate occurring on small (<40 mm cw) and large (>120 mm cw) crabs. Delayed mortality resulting from injury or stress was not estimated. Mortality in the Bering Sea appears to be lower than in the Gulf of Alaska, in part due to different sizes of crab taken. Observations from the 1993 Bering Sea scallop fishery indicated lower bycatch mortality of red king crab (10%), Tanner crab (11%) and snow crab (19%). As with observations from the Gulf of Alaska, mortality appeared to be related to size, with larger and smaller crabs having higher mortality rates on average than mid-sized crabs (D. Pengilly, ADF&G, unpublished data). Immediate mortality of Tanner crabs from the 1996 Bering Sea scallop fishery was 12.6% (Barnhart and Sagalkin 1998). Delayed mortality was not estimated. In the analysis made for Amendment 41, a 40% discard mortality rate (immediate and delayed mortality combined) was assumed for all crab species.

So what are the population impacts of bycatch?

By applying mortality rates estimated from scientific observations to the number of crabs taken as bycatch, it is possible to estimate the relative impacts of bycatch on crab populations. Discard mortality rates have been established in previous analysis (NPFMC 1999), and may be species or fishery specific. Bycatch mortality rates in trawl, dredge, and fixed gear fisheries for all crab species were set at 80%, 40%, and 20% respectively. For crab fisheries, mortality rates were averaged across different fisheries. Rates used were 24% for *C. opilio*, 20% for *C. bairdi*, and 8% for blue king crab and red king crab. The following tables show the resulting discard mortality estimates, the estimated population size based on the NMFS trawl survey, and the percentage of the population removed due to bycatch mortality.

Total bycatch (numbers) mortality of red king crab in all fisheries in the Bristol Bay area, 1994-1999 (through 10/30), and current years survey abundance estimate.

Year	Bycatch mortality	Abundance (millions)	Bycatch as %
1994	225,759	33.9	0.67
1995	35,599	33.9	0.11
1996	88,309	53.3	0.17
1997	124,485	75.1	0.17
1998	402,568	77.7	0.52
1999	144,161	64.8	0.22

Total bycatch (numbers) mortality of blue king crab in all fisheries in the St. Matthew area, 1994-1999 (through 10/30), and current years survey abundance estimate.

Year	Bycatch mortality	Abundance (millions)	Bycatch as %
1994	308,802	5.9	5.23
1995	conf	5.6	*
1996	136,196	10.0	1.36
1997	conf	10.0	*
1998	conf	8.4	*
1999	997	1.7	0.06

Total bycatch mortality (numbers) of *C. bairdi* crab in all fisheries in the Bering Sea, 1994-1999 (through 10/30), and current years survey abundance estimate.

Year	Bycatch mortality	Abundance (millions)	Bycatch as %
1994	5,905,693	192.0	3.08
1995	4,966,740	189.9	2.62
1996	2,449,137	175.6	1.39
1999	2,528,612	159.0	1.59
1998	2,064,723	156.5	1.32
1999	na	349.5	*

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Total bycatch mortality (numbers) of *C. opilio* in all fisheries in the Bering Sea, 1994-1999 (through 10/30), and current years survey abundance estimate.

Year	Bycatch mortality	Abundance (millions)	Bycatch as %
1994	22,661,327	9,445.9	0.24
1995	15,874,651	8,655.3	0.18
1996	16,587,291	5,424.9	0.31
1997	22,411,232	4,107.5	0.55
1998	15,883,059	3,233.3	0.49
1999	11,349,869	1,401.0	0.81
2001		7,861.0	

Average 043

What about unobserved mortality?

In addition to those crabs that are captured as bycatch, fishing activities can also cause crab mortality in ways that cannot be directly observed. A summary of these potential unobserved mortalities are discussed below.

Crab Fishery

Catching mortality is ascribed to those crabs that enter a pot and are eaten by other pot inhabitants before the pot is retrieved. Catching mortality likely occurs during the molting period, when crabs are more susceptible to cannibalism. Most crab fisheries are set to occur outside of the molting season, and catching mortality in these fisheries may be limited to octopus or large fish entering a pot. Because no evidence of crab is left in the pot, these mortalities remain unassessed.

Mortality is also caused by ghost fishing of lost crab pots and groundfish pots. Ghost fishing is the term used to describe continued fishing by lost or derelict gear. The impact of ghost fishing on crab stocks remains unknown. It has been estimated that 10% to 20% of crab pots are lost each year (Meyer 1971, Kruse and Kimker 1993). Based on skipper interviews, about 10,000 pots were estimated lost in the 1992 Bristol Bay red king, and Bering Sea Tanner and snow crab fisheries (Tracy 1994). Fewer pots are expected to be lost under pot limit regulations and shorter seasons. Bob Schofield, a major crab pot manufacturer, testified at the January 1996 Council meeting that he was making fewer pots since inception of the pot limit. He estimated that 6,461 pots were replaced in 1995. It is not known how long lost pots may persist and continue to fish, or just litter the bottom.

A sonar survey of inner Chiniak Bay (Kodiak, Alaska) found a high density of lost crab pots (190 pots) in an area of about 4.5 km2 (Vining et al. 1997). Underwater observations indicated that crabs and fish were common residents of crab pots, whether or not the pot mesh was intact. Intact pots recovered from the Chiniak Bay study area often contained crabs (primarily Tanner crabs) and octopus. High (1985) and High and Worlund (1979) observed that 20% of legal sized male red king crab and 8% of the sublegals captured by lost pots failed to escape.

Crabs captured in lost pots may die of starvation or by predation. Captured crab are subject to cannibalism (Paul et al. 1993), and predation by octopus, halibut and Pacific cod (High 1976). Crabs may have limited abilities to withstand starvation. In a simulated field study, 39% mortality of Tanner crabs was observed after 119 days of starvation (Kimker 1994). In a laboratory study, 10% of the Tanner crabs tested died of starvation in 90 days. Of the 90% that had survived 90 days, all later died even though they were freely fed (Paul et al. 1993). However, highest survival rates for juvenile king crabs fed a variety of diets were from those treatments recieving no food, even for extended period of 3 to 4 months (Shirley, unpublished data). To reduce starvation mortality in lost pots, crab pots have been

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required to be fitted with degradable escape mechanisms. Regulations required #120 cotton thread from 1977-1993. Beginning in 1993, regulations required #30 cotton thread or 30-day galvanic timed release mechanisms. A #30 cotton thread section is also required in groundfish pots. The average time for #30 cotton twine to degrade is 89 days, and the galvanic timed release about 30 days to degrade. Pots fitted with an escape mechanism of #72 cotton twine had a fishable life of 3-8 years and documented retention of up to 100 crabs per lost pot (Meyer 1971). High and Wolund (1979) estimated an effective fishing life of 15 years for king crab pots. Pots without escape mechanisms could continue to catch and kill crabs for many years, however testimony from crabbers and pot manufacturers indicate that all pots currently fished in Bering Sea crab fisheries contain escape mechanisms.

Mortality of crab caused by ghost fishing is difficult to estimate with precision given existing information. Mortality caused by continuous fishing of lost pots has not been estimated, but unbaited crab pots continue to catch crabs (Breen 1987, Meyer 1971), and pots are subject to rebaiting due to capture of Pacific cod, halibut, sablefish, and flatfish. In addition to mortality of trapped crab by ghost pots, and predation by octopus and fish, pot mesh itself can kill crabs. Lost pots retrieved by NMFS trawl surveys occasionally contain dead crabs trapped in loose webbing (Brad Stevens, NMFS, pers. comm). Pot limits and escape mechanisms may have greatly minimized ghost fishing due to pot loss in recent years.

Another very minor source of human induced crab mortality is direct gear impacts. Direct gear impacts result from a pot landing on the ocean floor when it is being set, presumably damaging any crab on which it lands. With reasonable assumptions, direct gear impacts are only a very minor source of mortality, however. An estimate of this impact can be derived by multiplying the number of pot lifts, the area they occupy, and relative crab density within areas fished in the Bering Sea. Assuming that pots land on different areas after each lift, and crab pots are set non-randomly over areas with relatively high density of crabs in directed fisheries, the total number of crab impacted can be roughly estimated. For 1993 the red king crab fishery, assuming a density of 5,000 red king crab of all sizes per square mile (density data from Stevens et al. 1998), a maximum of about two thousand red king crab were impacted (NPFMC 1996). Similarly, a maximum of 9,000 Tanner crabs (assuming 10,000 crab/mile2) and 110 thousand snow crabs (assuming 75,000 crab/mile2) were impacted by direct gear impacts in respective crab fisheries in 1993. It is not known what proportion of these crab die when a crab pot lands on them.

Trawl Gear

Not all crabs in the path of a trawl are captured. Some crab pass under the gear, or pass through the trawl meshes. Non-retained crabs may be subject to mortality from contact with trawl doors, bridles, footrope, or trawl mesh, as well as exposure to silt clouds produced by trawl and dredge gear. Only a few studies have been conducted to estimate catchability of crabs by trawl gear, and these studies are summarized below.

In one experiment to measure non-observable mortality, 169 red king crabs were tethered in the path of an Aleutian combination trawl (Donaldson 1990). The trawl was equipped with a footrope constructed of 14 inch bobbins spaced every 3 feet, separated by 6.5 inch discs. Thirty-six crabs (21.3%) were recovered onboard the vessel in the trawl. Divers recovered 46.2% of the crabs not captured by the trawl. Another 32.5% were not recovered but assumed to have interacted with the trawl. Of the 78 crabs not retained in the trawl, but captured by divers, only 2.6% were injured. If all injured crabs die, the non-observable mortality rate for trawl gear on red king crabs is estimated at 2.6% (Donaldson 1990). It should be noted that hard shelled crabs were used in this experiment; higher impacts would be expected if softshelled crabs were tested. Additionally, some areas have had higher intensity of bottom trawling than other areas, thus potentially exposing some crabs to multiple interactions with trawl gear.

In 1995, NMFS used underwater video cameras to observe the interaction of trawl gear with king and Tanner crabs (Craig Rose, NMFS, unpublished data). The experiment was conducted in Bristol Bay in an area with large red king crabs and Tanner crabs. Three types of trawl footropes were examined and they are as follows: a footrope with 3-4 foot lengths of 6" discs separated by 10" discs (called disc gear), a footrope with 24" rollers (tire gear), and an experimental float/chain footrope with the groundgear suspended about 8" off the seafloor. For disc gear, preliminary analysis indicated that all red king crab encountered entered the trawl and about 76% of the Tanner crabs were caught. Tire gear captured fewer king crabs (42%) and Tanner crabs (1%). The float/chain gear did not catch any of the crabs encountered. At the December 1995 Council meeting, excerpts of the NMFS video were shown to the Council and public. Trawl industry representatives testified that groundgear used to harvest finfish in this area depended on target species and bottom type, with tire gear type footropes used in hard bottom areas, and disc type gear used on smooth bottom areas. Testimony also indicated that variability existed in groundgear used among vessels, but that on average, most gear used in Bristol Bay trawl fisheries would be comprised of groundgear with discs or rollers larger than the disc gear tested and smaller than the tire gear tested.

The NMFS underwater video observations were further analyzed to determine the proportion of red king crab that were injured by passage under bottom trawl footropes (Rose 1999). Injury rates of 5% to 10% were estimated for crabs that encountered, but were not captured, in the center section of the trawl.

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 New York Times

Law Revises Standards for Scientific Study

Agencies to Face Challenges on Health and Environment Research

By ANDREW C. REVKIN

It does not even take effect until next Oct. 1. But a little-noticed law called the Data Quality Act, signed in the waning days of the Clinton administration, has set off a fierce debate over how best to weigh health and environmental risks.

The law — supported, and largely written, by industry-backed groups — requires the government for the first time to set standards for the quality of scientific information and statistics disseminated by federal agencies. It would create a system in every government agency under which anyone could point out errors in documents and regulations.

If the complaints were borne out, the agency would have to expunge the data from government Web sites and publications. More broadly, opponents of the new law say that while nobody wants the government to issue flawed data, the new process could undermine valid regulations and stifle government efforts to convey information on issues like climate change and cancer risks.

The National Academy of Sciences is convening a meeting today at which officials from government regulatory agencies, lawyers and experts from industry, science and environmental groups will discuss the law's potential for harm and good.

Even before the law takes effect, one of the groups that helped write it has already cited it in a petition requesting the withdrawal of a report on global warming.

The group, the Center for Regulatory Effectiveness, said in a Feb. 11 letter to the White House Office of Science and Technology Policy that a government assessment of the regional impacts of climate change is alarmist and based on flawed computer models.

If the center prevails, the study — the product of 10 years of work and critiques by independent scientists — could be removed from government Web sites and files. Many climate scientists, even some whose criticisms of early drafts were quoted in the center's petition, say the challenge is unfounded.

The Data Quality Act was quietly enacted in December 2000 as 27 lines in a giant budget bill.

It charged the government to create procedures "ensuring and maximizing the quality, objectivity, utility and integrity" of scientific information and statistics disseminated by federal agencies. Now, dozens of government agencies are struggling to ment agencies — in every duty — consider not just the quality of the data they use and communicate, but also the quality of their own analysis.

The result, he said, is that "in the long run this will focus government on problems that science suggests are very serious and away from problems that are less serious."

The prospect has industry officials elated. Many of those who helped draft the measure defend it as a vital breakthrough in their years-long effort to pinpoint weaknesses in the science behind costly regulations.

"This is the biggest sleeper there is in the regulatory area and will have an impact so far beyond anything people can imagine," said William L. Kovacs, the vice president for environment, technology and regulatory affairs of the United States Chamber of Commerce.

"This is the first time where, if the data is not good, you can actually begin challenging the agency," Mr. Kovacs said. The law, by setting a government standard for scientific quality, could also help industry prevail in lawsuits claiming rules relied on poor data or analysis, he and other industry representatives say.

A prime target, he and other industry representatives said, is new Environmental Protection Agency rules restricting the finest pollution particles, which are mainly emitted by diesel engines and power plants and have been linked increasingly to lung and heart ailments.

A law passed quietly is facing loud debate on how rules evolve.

Many industry officials say the rule is too broad and the E.P.A. should first find which types of small particles are hazardous. Supporters of the regulations, which have not yet taken effect, say it would take years of additional study to pinpoint the exact hazard, but people are dying from such pollution now.

Senator James M. Jeffords, the Vermont independent who is chairman of the Senate environment committee, said the goal of the law is laudable, but it could easily work against effective government.

"Opponents of government action to protect the public health and the ings.

The Environmental Protection Agency on Tuesday initiated a four-day online comment process on its Web site, www.epa.gov/oei, seeking ideas for how it might best create such a system.

Some scientific groups are concerned that insufficient attention has been paid to the new regulation and its likely effects.

"This is a critical juncture," said Joanne Padrón-Carney, director of the Center for Science, Technology, and Congress of the American Association for the Advancement of Science, the world's largest scientific organization. "Each agency will be clarifying its own methods for how they define things like quality. It's important for scientists to pay close attention."

Ms. Carney said there was potential for problems if industries or institutions opposed to certain regulations demanded complicated, time-consuming, intrusive reviews of data.

"We really would not like to have science attacked as a way of being sure that policy isn't made," she said.

Views remain mixed on whether the benefits of the law will outweigh the potential harm.

Alan B. Morrison, a lawyer on leave from Public Citizen, the private consumer watchdog group in Washington, said the law could provide unexpected opportunities for critics of any government agency — from the Defense Department to the Nuclear Regulatory Commission.

It applies just as much to data released by the Pentagon as it does to E.P.A. pollution studies, Mr. Morrison noted.

But over all, he said, he is convinced that "its clear purpose is to slow agencies down."

Many experts on regulations say that if the guidelines are written appropriately, they could spur agencies to carefully, openly review the quality of science used to write rules or set policies in advance.

Currently, in most cases, a pollution or health standard is published and only then the fighting begins over whether it is valid or not, said Frederick R. Anderson, a corporate lawyer in Washington who is part of the National Academy of Sciences panel conducting the meeting today.

Often, such fights spill over into the courts, resulting in years of costly litigation.

Dr. Graham said he expected that the guidelines, instead of burdening

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Science and Technology Policy that a government assessment of the regional impacts of climate change is alarmist and based on flawed computer models.

If the center prevails, the study — the product of 10 years of work and critiques by independent scientists — could be removed from government Web sites and files. Many climate scientists, even some whose criticisms of early drafts were quoted in the center's petition, say the challenge is unfounded.

The Data Quality Act was quietly enacted in December 2000 as 27 lines in a giant budget bill.

It charged the government to create procedures "ensuring and maximizing the quality, objectivity, utility and integrity" of scientific information and statistics disseminated by federal agencies. Now, dozens of government agencies are struggling to translate that language into thousands of pages of quality-control guidelines.

Agencies must finish drafts of their science quality procedures by May 1 and send the final version to the White House Office of Management and Budget by July, where the Bush administration will check to be sure guidelines meet its standards.

The effort is being overseen by Dr. John D. Graham, an expert on risk and regulation from Harvard who last year became the administrator of the office of information and regulatory affairs of the Office of Management and Budget. Dr. Graham's focus on using strict statistical analysis of risks and benefits to judge where to focus public resources has made him a favorite of industry and a target of private environmental groups, which often rely on public passion to drive campaigns.

He said that the administration's goal was to ensure that all government [illegible] particles, which are mainly emitted by diesel engines and power plants and have been linked increasingly to lung and heart ailments.

Many industry officials say the rule is too broad and the E.P.A. should first find which types of small particles are hazardous. Supporters of the regulations, which have not yet taken effect, say it would take years of additional study to pinpoint the exact hazard, but people are dying from such pollution now.

Senator James M. Jeffords, the Vermont Independent who is chairman of the Senate environment committee, said the goal of the law is laudable, but it could easily work against effective government.

"Opponents of government action to protect the public's health and the environment," Mr. Jeffords said, "have latched on to the Data Quality Act and are attempting to misuse it to prevent the public from getting valid information about threats to their well being and quality of life."

Following guidelines written by the Bush administration, government agencies are creating procedures for judging the quality of the data they use — whether generated within the government or by university scientists, hospital researchers, companies or private groups.

The more influential the data are likely to be, the higher the quality standard they must meet, the guidelines say. In some cases, the guidelines state, even studies published in respected peer-reviewed journals will require further confirmation.

Under the data law, by October every agency must have the equivalent of a complaints line, through which individuals, companies or groups can challenge scientific findings disseminated by the Pentagon as threats to E.P.A. pollution studies, Mr. Morrison noted.

But over all, he said, he is convinced that "its clear purpose is to slow agencies down."

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Often, such fights spill over into the courts, resulting in years of costly litigation.

Dr. Graham said he expected that the guidelines, instead of burdening agencies with new costs and work, would reduce the burden by cutting the number of such lawsuits.

But some architects of the legislation say they expect it will help them in the courtroom. Most notable is James J. Tozzi, the founder of the Center for Regulatory Effectiveness.

With a government-set yardstick for quality, Mr. Tozzi said, critics of regulations can now build more convincing cases showing that an agency was arbitrary and capricious in its choice of data. Until now, such suits have generally failed.

The most important aspect of the law, he said, is that it creates a consistent system for uncovering errors early and encouraging agencies to be more careful about how they use data.

"It's the information age," Mr. Tozzi said. "Now in the world's most powerful government you're going to have to issue information that's accurate."

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C-5
Arni Thomson

COMMENTS AND RECOMMENDATIONS FOR CRAB RATIONALIZATION ELEMENTS AND OPTIONS FOR THE NPFMC
Revised 4-12-02

Arni Thomson, Executive Director, Alaska Crab Coalition

- The ACC recommends the NPFMC send the draft analysis of Bering Sea Crab Rationalization Alternatives out for public review in preparation for NPFMC final action in June, 2002.

- The ACC supports the Advisory Panel motion of April 11, 2002, which incorporates refinements to the crab rationalization analysis.

RECOMMENDATION:

1. ACC has submitted substitute language for Option 2, 1.4.1, basis for initial allocation of QS, (See attachment). The AP has added the revised option and it is now option 4 in the AP minutes. The ACC revised language retains the link of quota share eligiblity to the vessel upon which it was earned and allows for combining Amendment 10 catch histories of original and replacement vessels. In addition, it now incorporates the Bing Henkel sub option that allows for limited combining of Amendment 10 qualified LLPs. For situations of combined LLPs and initial eligibility for quota shares, vessel owners must choose the catch history, on a fishery by fishery basis, of one or the other vessel, but not both. This prevents double dipping on the initial allocation and maintains the one-boat one-history policy.

   The discussion on page 184, paragraphs 2, and 3, substantiates the potential extent of the problem of dilution of quota shares to bona fide vessel owners if the requirement of a U.S. owned and documented vessel is not included for initial allocation. The staff analysis notes that the industry list (ACC) of non-U.S documented vessels submitted to the NPFMC, that 16 of 24 vessels on the list are qualified for permanent LLPs and 13 of those are over 165 feet in length and barred from reentry to the U.S. 13 of these are catcher processors. 6 vessels have interim permits. The impact of the ACC proposed option would prevent those U.S. persons holding the LLPs based on the catch of these vessels from utilizing the catch history of these vessels for stacking purposes. The ACC options would prevent eligiblity and stacking of the catch history from these boats and other boats sold out of the fishery but that are still U.S. documented, regardless of stacking permitted by Amendment 10.

   A NMFS LLP list (April 2, 2002, attachment), shows the Aleutian/Ocean Ballad group has 4 LLP sets, 3 stacked on the Aleutian Ballad and one, with no current vessel name identified. The Ballad group sold two vessels out of the fishery last year and retained the LLPs and fishing rights. The Seawind Fisheries group have 2 latent catcher processor sets on the record with no current vessel name, Adtka Enterprise and American Empire. Both vessels are in Russia. The Seawind 2 (also in Russia) is no longer on the NMFS list. The Deep Sea Harvester is still registered on the NMFS list, but no current vessel name for it. This vessel is also in Russia. Two partners are both claiming rights for the Jacquelyn R, also in Russia. It would be significant if 2 sets of QS are issued for that vessel. ACC has reviewed the NMFS list carefully and to the best of our knowledge, ACC's vessel requirement which allows for Amendment 10 replacement vessels does not impact any of the legitimate vessels. Previous concerns expressed in public testimony about replacement vessels such as the Pinnacle and Controller Bay have been dealt with in Amendment 10.

   98.5% of the eligible vessels on the LLP data base have a straight-through continuous vessel catch history for all qualification periods. The uncertainties of the NMFS RAM appeals and adjudication process in regards to the implementation of Amendment 10 and the exemptions, which could eventually allow stacking and combining of up to 5-7% of catch history, leads the ACC to continue supporting Option 2.

2. COMMENT ON Option 1.7.2 , Initial issuance of catcher processor quota shares:

   ACC's preferred option is 1.7.2.1.1 Catcher processors shall be granted CP QS in the same manner as catcher Vessels. This option insures that cps will receive equal amounts of catching and processing history, for the same qualifying period will be used for both catching and processing.

3. COMMENT, the need for clarification of the state voluntary cooperative program--6.1—page 288. It needs to be clear the voluntary cooperative is voluntary and that disincentives will not be required if vessel owners do not form coops. Vessel owners should want to join coops for reasons of efficiency. If the fleet is going with a two pie program to access ITQs, they need as much flexibility as possible and they need to keep costs down. Coop formation requires extensive legal fees. Groups of fishermen will likely voluntarily form coops with processors for efficiency, once they sort out who their markets will be.

4. COMMENT ON preferred options for skippers and crew, elements 1.8.1

a. Option 2, First Right of Refusal on Quota Shares Transfers, element 1.8.1, page 333: The analysis now describes a serious program that could definitively aid skippers and crew to become vested quota share owners ("owners on board"). The provisions and guidelines are noted on page 333 and provide significant protection for insuring skipper and crew ownership of QS in the future. It is also clear to see that it will work quite well in tandem with a specially developed NMFS administered IFQ loan program, similar to the sablefish and halibut loan program. **The Council crab rationalization committee report recommended both of these options for skippers, with the first right of refusal shares being capped at 10%**

b. Option 4, IFQ loan program, page 336: Clarify that NMFS has provided the NPFMC with a report on the existing loan program and that report should be included as an appendix in the document. At this point the report is referred to as anecdotal information. I spoke with Mike Grable, NMFS, WA, DC about it and he said he would call the NPFMC about it, they did officially submit it. The report is very positive. It shows that over $18 million has been loaned out to fishermen from 1998 through 2001. The amount of the loans is split equally between Alaskans and non-residents from other states. Copies are available.

The combination of the low interest loan program and the right of first refusal after initial allocation, on 10% of the QS offered for sale will have an effect similar to the "owner on board" proposal. Captains and crew become invested owners in the fishery. Also, an estimated 35% of the skippers are already vested owners.

COMMENTS on the issue of skipper allocations are noted below:

- The ACC has six out of nine Board members that are skippers and they were operating vessels in the Bering Sea this winter. None of these skippers, nor other Board members support an initial allocation of quota share for skippers. However, they endorse the right of first refusal on 10% of the initial allocation of QS and the assessment for a skipper and crew IFQ loan program.
- ACC boat owners feel it is not fair and equitable for skippers to get allocations for free, with no vessel maintenance obligations and expenses. This will disrupt partnership shares and overall, dilute the partnership and corporate ownership shares in vessels. The average vessel gross stock revenue has decreased by two thirds since 1999, from almost $1 million per year to $330,000 the current fall and winter crab season. Vessel owners can ill afford any further diminution of their business equities. Allocating 10% - 20% of the quota share from a vessel to a skipper could equate to 25% of the net revenue.
- Several of the skippers involved in the Council process are already minority owners in vessels. The remainder of the skippers actively seeking skipper allocations have either made conscious decisions not to invest in vessels, as a matter of career and lifestyle choices, or, they have sold vessels in the past and in doing so, they have signed off on all fishing rights.
- Some of the skippers own 10-50% ownership in one vessel, while operating another vessel. A skipper allocation will enable the skipper to bring additional quota share from the boat he is operating to the boat he owns.
- Some skippers have turned down very reasonable buy-in offers because they other other priorities. It is common practice in the crab industry for vessel owners to invite skippers to invest in vessels at least at the 10% level. Numerous skippers have declined that option in preference for investments in other areas such as: real estate properties, Bristol Bay salmon boats and permits, and the stock market.

5. **RECOMMENDATION** analyze an additional cap option between 1% and 5%--**3% ownership cap**, 1.6.3, page 5, AP minutes in the Bering Sea crab fisheries. Also, variable caps for different fisheries should be considered, particularly small GHL fisheries may warrant higher caps.

6. COMMENT, use caps present a very real problem in regards to achieving the benefits of Rationalization, namely reducing the fleet overcapacity. Use caps will defeat stacking and leasing. Elements 1.7.4, Page 226. Ownership caps should be the guide on use.

7. COMMENTS on conservation measures related to concerns about deadloss, catch accounting and incidental catch, elements 1.7.3. Element 1.7.3, options 1,2,3--- all suggest a prohibition on discards. Related to this, refer to pages 140-144 and section 3.2.11, page 156. *FMP issues to consider under rationalization*. The issues of discards and size limits are category 3 management measures, reserved to the Board of Fisheries, and if placed under Council jurisdiction, which 1.7.3 implies, would require an FMP amendment to change it to a category 1 management measure. See *minimum size limits* discussion, page 158 and also the discussion under *bycatch limits*, page 160. It is advisable to leave these measures as category 3 measures in the FMP. The BOF members, ADFG and industry have been addressing these issues for many years and they have the expertise. These issues should be addressed following a presentation from ADFG.

RECOMMENDATION: Consider recommending that options 1,2,3 and 4 be dropped from the analysis and replaced with a generic statement, whereby the Council would state their concerns and then recommend that *"ADFG and BOF address the concerns of discards, hygrading, incidental catch and the need for bycatch reduction, improved inseason monitoring to coincide with implementation of a rationalization program."* (The AP added in the ACC language as a new option.)

8. COMMENTS on binding arbitration, element 2.8.3, and page 320 and Appendices 3-4A and 3-4B in the analysis. The benefit of final-offer arbitration implicit in the industry proposed model suits the crab industry, despite what the analysts say about it possibly increasing dispute rates. It is an expedited process, that can be conducted quickly to meet industry operation schedules. It also has a precedent in Newfoundland with the snow crab fishery.

   RECOMMENDATION: Support the Council establishing a small industry work group to further flesh out the necessary mechanisms for a workable arbitration system.

9. COMMENT on sideboards, element 1.8.5. In regards to GOA crab fisheries the BOF has just established Superexclusive designations for Kodiak tanner crab and Chignik king and tanner crab fisheries. This designation will protect the small boat local fleets that now dominate the tanner crab fisheries that just reopened in 2001. There are over 200 vessels involved in the Kodiak tanner fishery now, and only an estimated 13 of these are BSAI qualified crab LLP vessels. The Bering Sea crab fleet has effectively been excluded from the GOA crab fisheries. It is also noteworthy that a petition has recently been submitted to the CFEC for limited entry in the Kodiak tanner crab fishery.

   ACC supports the AP options for sideboards on BSAI crab boats in the GOA groundfish fisheries.

10. COMMENT ON Qualifying Periods for Determination of the QS Distribution: Elements 1.4.2.8, Western Aleutian Islands Adak red king crab, the issue of the fisheries being appropriate for rationalization: Tables 3.3-12 for golden king crab, page 205 and Table 3.3-15 on page 209, Adak red king crab show the leading four vessels in both fisheries will share on average 16-22% each of the golden king crab QS under any of the options, and 18.5-19.5% on average each of the Adak red king crab for either of the two qualifying periods under consideration. **Due to confidentiality guidelines, ownership data that would enable projected allocations to be aggregated to show the actual distribution of allocations, is unavailable to analysts.**

    The net effect of rationalization of these two fisheries will be that up to 80% of the QS in each fishery will be controlled by four vessels. At least two of the top four vessels have QS in both fisheries, and two vessels are owned by one entity—which controls almost 50% of the QS in both fisheries. two of the top four vessels are catcher processors. On the other hand, 19 additional golden king crab vessels and 22 additional red king crab vessels will share less than 20% of the remaining QS in each fishery.

    RECOMMENDATION: The NPFMC should consider dropping Adak red king crab from the rationalization analysis to prevent allocation of excessive quota shares to four vessels.

DRAFT REVISION 4-9-02

1.2 Persons eligible to receive an initial allocation of QS must be:

* * *

Option 2 (revised):

A person, defined as a U.S. citizen that owns a MarAd certified and/or USCG documented BSAI crab vessel that (i) was used to satisfy the General Qualification Period (GQP) and Endorsement Qualification Period (EQP) landings requirements of the License Limitation Program (LLP), and (ii) either was used to satisfy the Recent Participation Period (RPP) landings requirement of Amendment 10 or meets the exemption requirements of Amendment 10; *or (iii) a person who has purchased an LLP, with GQP, EQP, and RPP qualifications to remain in a fishery is eligible to obtain a distribution of QS on the history of either the vessel on which the LLP is based or on which the LLP is used, NOT both.*

1.4.1

* * *

(b) Basis for QS distribution.

Option 2 (revised):

For eligibility criteria in paragraph 1.2, the distribution of QS to the LLP license holder shall be on a fishery-by-fishery basis. Such distribution shall be based on (i) the catch history of the vessel on which the LLP license and endorsements are used; or (ii) the catch history of the vessel from which the LLP license and endorsements were transferred to the vessel on which the LLP license and endorsements are used. For the purposes of this paragraph, vessels shall include those replaced in accordance with Amendment 10 to the LLP. With the exception of Amendment 10 replacement vessels, catch histories from different vessels shall not be combined for any single fishery, nor shall distribution of QS be based, in whole or in part, on any catch history of any vessel not lawfully U.S. documented and endorsed as a fishing vessel at the time such distribution is made. License transfers for purposes of combining LLPs must have occurred by January 1, 2002.

Rationale for Option 2 (revised)

Catch histories from different vessels should not be combined for any single fishery. To allow combination of catch histories for a given fishery in a quota program would treat very disproportionately the investments made in vessels, on the one hand, and paper histories, on the other. The investment in a vessel with a certain catch history far exceeds an investment in the same catch history simply transferred to another vessel. Therefore, it is fundamentally unfair, in a quota program, to distribute quota on a basis that treats these investments as though they were equal. Moreover, allowing combined catch histories in a single fishery would reward speculation on the future quota program, at the expense of others who invested in more than just paper. An obvious exception is presented by a replacement vessel qualified under Amendment 10, where combining two partial catch histories is essential.

It is true that the LLP provides for permit stacking. A collateral effect is, in some cases, the combination of catch histories from the same fishery. In a license limitation program, this accumulation of paper catch histories in one fishery does not dilute the investments of the vessel owners, because each continues to harvest whatever amount of crab that skill, resource conditions, fleet size, and so forth, allow in that fishery.

4/1/02
NMFS/AKR/RAM/Gharrett

List of Current LLP Crab Licenses

Alphabetical

License	Linked GF License	License Holder	Operation Type	MLOA	Interim	Transfer-able?	QOV ADFG	QOV Name	Current Vessel ADFG	Current Vessel Name	Endorsements 1	2	3	4	5	6	7
LLC3459		IVANOFF, STEPHEN ET AL.	CV	38		Yes	49100	MITCHELL GAYLE	46331	AATAI	N	N	N	N	Y	N	N
LLC2699		ICICLE SEAFOODS, INC.	CV	110		Yes	985	ADVENTURE	985	ADVENTURE	N	N	Y	Y	N	Y	Y
LLC2275	LLG2274	AIREDALE LLC	CV	130		Yes	988	AIREDALE	988	AIREDALE	N	N	Y	Y	N	N	Y
LLC3655	LLG3654	A J FISHERIES, LLC	CV	150		Yes	57934	AJ	57934	AJ	N	N	Y	Y	N	N	N
LLC3687	LLG3686	ALASKA CHALLENGER L.L.C.	CV	124		Yes	4100	ALASKA CHALLENGER	4100	ALASKA CHALLENGER	N	N	Y	Y	N	N	Y
LLC1607		ALASKA SEA, INC.	CV	110		Yes	3717	TIFFANY	25047	ALASKA SEA	Y	N	Y	Y	N	N	N
LLC3093	LLG3092	OAR-JEN, INC.	CV	118	Interim	No	35949	ALASKA SPIRIT	35949	ALASKA SPIRIT	N	N	Y	Y	N	Y	N
LLC3873		ALASKA TROJAN FISHERIES	CV	127	Interim	No	37887	ALASKA TROJAN	37887	ALASKA TROJAN	Y	Y	Y	Y	N	Y	Y
LLC3301	LLG3300	ALASKAN BEAUTY FISHERIES, INC. ET AL.	CV	124		Yes	8653	ALASKAN BEAUTY	8653	ALASKAN BEAUTY	Y	N	Y	Y	N	N	Y
LLC2801	LLG2800	ROYAL VIKING, INC.	CV	132		Yes	48215	ALDEBARAN	48215	ALDEBARAN	N	N	Y	Y	N	N	N
LLC3170	LLG3169	ALEUTIAN BALLAD, INC.	CV	124		Yes	46553	ALEUTIAN BALLAD	46553	ALEUTIAN BALLAD	N	N	Y	Y	N	Y	Y
LLC3914		OCEAN BALLAD, INC.	CV	165		Yes	55179	PARAMOUNT	46553	ALEUTIAN BALLAD	N	N	Y	Y	N	N	Y
LLC3916	LLG3915	OCEAN BALLAD, INC.	CV	113		Yes	3400	ROSIE G	46553	ALEUTIAN BALLAD	N	N	Y	Y	N	N	Y
LLC3218		GUNN-WIDING ENTERPRISES	CV	118		Yes	32282	ALEUTIAN BEAUTY	32282	ALEUTIAN BEAUTY	N	N	Y	Y	N	N	Y
LLC3091	LLG3090	SHELFORD, RICHARD ET AL.	CV	165		Yes	56126	ALEUTIAN LADY	56126	ALEUTIAN LADY	N	N	Y	Y	N	Y	Y
LLC3587	LLG3586	ALEUTIAN MARINER, LLC	CV	124		Yes	35844	ALEUTIAN MARINER	35844	ALEUTIAN MARINER	N	Y	Y	Y	N	N	Y
LLC3989	LLG4478	NEW ERA PARTNERSHIP	CV	126	Interim	No	5992	ALEUTIAN NO 1	5992	ALEUTIAN NO 1	N	N	Y	Y	N	Y	Y
LLC3319		HJELLE ENTERPRISES, INC.	CV	126		Yes	968	ALEUTIAN ROVER	958	ALEUTIAN ROVER	N	N	Y	Y	N	N	Y
LLC3881	LLG3880	ALEUTIAN SPRAY, LLC	CV	118		Yes	991	ALEUTIAN SPRAY	991	ALEUTIAN SPRAY	Y	N	Y	Y	N	Y	Y
LLC3931	LLG4600	NINILCHIK LTD. PARTNERSHIP	CV	124	Interim	No	60865	ALICIA JEAN	60865	ALICIA JEAN	N	N	Y	Y	N	N	Y
LLC1434		GILES, GORDON	CV	126		Yes	31944	ALLIANCE	31944	ALLIANCE	N	N	Y	Y	N	Y	Y
LLC3898	LLG3897	RONDYS, INC. ET AL.	CV	124		Yes	40749	ALSEA	40749	ALSEA	N	N	Y	Y	N	N	N
LLC2260	LLG2259	AMATULI ENTERPRISES	CV	124		Yes	3535	AMATULI	3535	AMATULI	N	N	Y	Y	N	Y	Y
LLC2544	LLG2543	TYNES ENTERPRISES, INC. ET AL.	CV	124		Yes	39	AMERICAN EAGLE	39	AMERICAN EAGLE	N	N	Y	Y	N	N	N
LLC2804	LLG2803	BUHOLM FISHERIES, INC.	C/P	128	Interim	No	67	AMERICAN VIKING	67	AMERICAN VIKING	Y	Y	Y	Y	N	N	Y
LLC3609	LLG3608	ANDRONICA, INC.	CV	119		Yes	39928	ANDRONICA	39928	ANDRONICA	Y	N	Y	Y	N	Y	Y
LLC1380	LLG1379	DIAMONDBACK SEAFOODS, INC.	CV	103		Yes	6858	ANNA MARIE	6858	ANNA MARIE	N	N	Y	Y	N	N	Y
LLC3990		TAMARACK VENTURES, LLC	CV	165		Yes	62505	AQUILA	62505	AQUILA	N	N	Y	Y	N	N	N
LLC2087	LLG2086	MAGNUM MARITIME FISHERIES ET AL.	CV	172	Interim	No	52014	SEA PRODUCER	68870	ARCTIC BARUNA 2	N	N	Y	Y	N	N	Y
LLC2120	LLG2119	SHELIKOF MARITIME, INC.	CV	150	Interim	No	50118	SHELIKOF	68869	ARCTIC BARUNA I	N	N	Y	Y	N	N	Y
LLC3230	LLG3229	PACIFIC RIM FISHERIES, INC.	CV	115	Interim	No	42144	ARCTIC DAWN	42144	ARCTIC DAWN	Y	Y	Y	Y	Y	N	Y
LLC3891	LLG3890	ARCTIC EAGLE, LLC	CV	126		Yes	61111	ARCTIC EAGLE	61111	ARCTIC EAGLE	N	N	Y	Y	N	N	Y
LLC3586	LLG3594	ARCTIC MARINER, LLC	CV	125	Interim	No	31792	ARCTIC MARINER	31792	ARCTIC MARINER	N	N	Y	Y	N	Y	Y
LLC1883	LLG1882	KRISTIAN E. POULSEN ENT., INC.	CV	134		Yes	33696	ARCTIC SEA	33696	ARCTIC SEA	N	N	Y	Y	N	Y	Y
LLC4010	LLG4009	F/V ARCTIC WIND, LLC	CV	124		Yes	1112	ARCTIC WIND	1112	ARCTIC WIND	N	N	Y	Y	N	Y	Y
LLC2269	LLG2268	TRIDENT SEAFOODS CORPORATION	CV	132		Yes	45978	ARCTURUS	45978	ARCTURUS	N	N	Y	Y	N	N	N
LLC2894	LLG2893	RONDYS, INC.	CV	124		Yes	38547	ARGOSY	38547	ARGOSY	N	N	Y	Y	N	N	N
LLC2471	LLG2470	ATLANTICO, INC., ET AL	CV	118		Yes	37	ATLANTICO	37	ATLANTICO	N	N	Y	Y	N	Y	N
LLC1609	LLG1607	AUTUMN DAWN PARTNERSHIP	CV	126		Yes	40051	AUTUMN DAWN	40051	AUTUMN DAWN	N	N	Y	Y	N	N	Y
LLC1570	LLG1578	ROMANZOF FISHING COMPANY LLC	C/P	160		Yes	34855	BARANOF	34855	BARANOF	N	Y	Y	Y	N	Y	Y
LLC3824	LLG3823	BARBARA J PARTNERSHIP	CV	124		Yes	44971	BARBARA J	44971	BARBARA J	N	N	Y	Y	N	N	Y
LLC3618	LLG3617	BEAUTY BAY, INC.	CV	127		Yes	60100	BEAUTY BAY	60100	BEAUTY BAY	N	N	Y	Y	N	N	Y
LLC2020		BELLA K OF SEATTLE, LLC	CV	130		Yes	55124	BELLA K	55124	BELLA K	Y	Y	Y	N	N	Y	Y
LLC3681	LLG3681	PROWLER, LLC	CV	156	Interim	No	6525	JAMES A	55124	BELLA K	N	N	N	Y	N	N	N
LLC1882	LLG1681	KRISTIAN E. POULSEN ENT., INC.	CV	124		Yes	63333	BERING PROWLER	63333	BERING PROWLER	N	N	Y	Y	N	N	Y
LLC3698	LLG3697	NORQUEST SEAFOODS, INC.	CV	155		Yes	52	BERING SEA	52	BERING SEA	N	N	Y	Y	N	Y	Y
LLC1766	LLG1765	BIG BLUE FISHERIES	CV	108		Yes	54870	ALL AMERICAN	36379	BEVERLY B	N	N	Y	Y	N	N	N
LLC2078	LLG2077	SAGAKA FISHING, INC. ET AL.	CV	110		Yes	37241	BIG BLUE	37241	BIG BLUE	N	N	Y	Y	N	N	Y
LLC2267	LLG2266	TRIDENT SEAFOODS CORPORATION	CV	135		Yes	23460	BIG VALLEY	23460	BIG VALLEY	N	N	Y	Y	N	Y	N
LLC3750	LLG3749	SAN JUAN SEAFOODS, INC	C/P	160		Yes	53764	NORTHERN ENTERPRISE	20745	BILLIKIN	N	N	Y	Y	N	Y	N
LLC3849	LLG4517	BLUE ALEUTIAN, LLC	CV	134	Interim	No	40817	BLUE ALEUTIAN	40817	BLUE ALEUTIAN	N	N	Y	Y	N	Y	Y

(1) AIBKC (2) AIRKC (3) BSAIOBC (4) BBRKC (5) NSRKC (6) PRBKC (7) STMBKC

B. Lethin

1-AIBC 2-AIRKC 3-BSAIOBC 4-BBRKC 5-NSRKC 6-PRBKC 7-STMBKC

4/1/02
NMFS/AKR/RAM/Gharrett

List of Current LLP Crab Licenses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
53																		
54																		
55																		
56																		
57																		
58																		
59	LLC3974		BLUE ATTU, LLC	C/P	137		Yes	40837	BLUE ATTU	40837	BLUE ATTU	N	N	Y	Y	N	N	Y
60	LLC2368	LLG2367	JEFFRY J. & ANN M. MCENTIRE	CV	58		Yes	32352	BLUE DOLPHIN	32352	BLUE DOLPHIN	N	N	N	N	Y	N	N
61	LLC3846	LLG3846	BLUE DUTCH, LLC	C/P	180	Interim	No	54885	BLUE DUTCH	54885	BLUE DUTCH	N	N	Y	Y	N	N	N
62	LLC1946	LLG1945	VEDOY, OLUF ET AL.	CV	124		Yes	62841	BLUE FIN	62841	BLUE FIN	N	N	Y	Y	N	Y	N
63	LLC3494	LLG3493	PACIFIC DRAGGERS, INC. ET AL.	CV	102		Yes	62892	BLUE FOX	62892	BLUE FOX	N	N	Y	Y	N	N	N
64	LLC2516	LLG4354	TRIDENT SEAFOODS CORPORATION	C/P	167		Yes	34053	BOUNTIFUL	34053	BOUNTIFUL	N	N	Y	Y	N	N	Y
65	LLC3579	LLG3578	BRISTOL MARINER, LLC	CV	125		Yes	8411	BRISTOL MARINER	8411	BRISTOL MARINER	N	N	Y	Y	N	Y	Y
66	LLC3285	LLG4566	RENFRO, WILLIAM	CV	120	Interim	No	3503	BRITTANY	3503	BRITTANY	N	N	Y	Y	N	N	Y
67	LLC2039	LLG2038	ALASKA BOAT COMPANY	CV	141		Yes	131	BULLDOG	131	BULLDOG	N	N	Y	Y	N	Y	Y
68	LLC2709	LLG2708	BUMBLE BAY, LTD.	CV	48		Yes	38121	BUMBLE BAY	38121	BUMBLE BAY	N	N	N	N	Y	N	N
69	LLC3200	LLG4523	AMERICAN STAR & OWNERS	CV	154	Interim	No	6369	AMERICAN STAR	41628	CAMERON	N	N	Y	Y	N	Y	Y
70	LLC3331		NORQUEST SEAFOODS, INC.	CV	108		Yes	46309	CAPE CAUTION	46309	CAPE CAUTION	N	N	Y	Y	N	N	N
71	LLC3459	LLG3458	CASCADE MARINER, LLC	CV	120		Yes	64	CASCADE MARINER	64	CASCADE MARINER	N	N	Y	Y	N	N	Y
72	LLC4860	LLG4859	CELTIC SEAS, INC.	CV	59		Yes	57469	CELTIC	57469	CELTIC	N	N	Y	N	N	Y	N
73	LLC3506	LLG3504	EVENING STAR, INC.	CV	133		Yes	53843	COMMODORE	53843	COMMODORE	N	N	Y	Y	N	N	N
74	LLC1975	LLG1974	CONSTELLATION FISHERIES, INC.	CV	127		Yes	35829	CONSTELLATION	35829	CONSTELLATION	N	N	Y	Y	N	Y	Y
75	LLC2514	LLG4352	COUGAR INDUSTRIES, INC.	CV	115	Interim	No	6700	COUGAR	6700	COUGAR	N	N	Y	Y	N	N	Y
76	LLC1577	LLG1576	COURAGEOUS SEAFOODS	C/P	180		Yes	35833	COURAGEOUS	35833	COURAGEOUS	N	N	Y	Y	N	N	Y
77	LLC3860		DEBRA D, INC.	CV	118		Yes	35870	OCEAN CHALLENGE	61585	DEBRA D	N	N	Y	Y	N	N	N
78	LLC3334		FANNINGS DENALI, INC.	CV	98		Yes	951	DENALI	951	DENALI	N	N	Y	Y	N	N	N
79	LLC3328	LLG3327	DESTINATION, INC.	CV	124	Interim	No	42234	DESTINATION	42234	DESTINATION	N	N	Y	Y	N	Y	Y
80	LLC3114	LLG4500	TENNISON, RONALD	CV	118	Interim	No	35839	DESTINY	35839	DESTINY	Y	Y	Y	Y	N	Y	N
81	LLC1450	LLG1448	L.T.D., INC. ET AL.	CV	124		Yes	35308	DETERMINED	35308	DETERMINED	N	Y	Y	Y	N	Y	Y
82	LLC1947		DIAMOND HEAD, INC.	CV	130		Yes	58140	DIAMOND HEAD	58140	DIAMOND HEAD	N	N	Y	Y	N	N	Y
83	LLC3846	LLG4625	OSTROM FISHERIES, INC.	CV	104	Interim	No	58024	DILIGENCE	58024	DILIGENCE	N	Y	Y	Y	N	Y	Y
84	LLC2538	LLG2537	TRIDENT SEAFOODS CORPORATION	CV	124		Yes	8868	DOMINATOR	8868	DOMINATOR	N	N	Y	Y	N	N	N
85	LLC2788	LLG2787	NINA FISHERIES, INC.	CV	168		Yes	51672	DONA MARITTA	51672	DONA MARITTA	N	N	Y	Y	N	N	N
86	LLC3657	LLG3656	DR. K OF SEATTLE, LLC	CV	127		Yes	21436	PACESETTER	55131	DR. K	N	N	Y	Y	N	N	Y
87	LLC2775	LLG2774	ECHO BELLE, INC.	CV	101		Yes	48317	ECHO BELLE	48317	ECHO BELLE	N	Y	Y	Y	N	Y	N
88	LLC1274	LLG1273	ELIZABETH F, INC.	CV	108		Yes	14767	ELIZABETH F	14767	ELIZABETH F	N	N	Y	Y	N	Y	N
89	LLC3557	LLG3556	WAHL FISHERIES, LLC	CV	128		Yes	59224	BRISTOL STORM	32564	ENDURANCE	N	N	Y	Y	N	N	Y
90	LLC1782	LLG1781	ENTRANCE POINT, INC.	CV	124		Yes	46496	ENTRANCE POINT	46496	ENTRANCE POINT	N	N	Y	Y	N	N	N
91	LLC2215	LLG2214	ERLA-N, LLC	CV	124		Yes	25041	ALASKA SEA	20556	ERLA N	Y	N	Y	Y	N	N	Y
92	LLC3857		ERLA-N, LLC	CV	124	Interim	No	20556	ERLA N	20556	ERLA N	Y	N	Y	Y	N	Y	Y
93	LLC3700	LLG3699	LEWIS, HAL	CV	59	Interim	No	6772	ESTER	6772	ESTER	N	Y	Y	N	N	N	N
94	LLC1314	LLG1313	EXCELLER FISHERIES, INC.	CV	59		Yes	47952	EXCELLER	47952	EXCELLER	N	N	N	N	N	Y	N
95	LLC1817	LLG1816	G & S ENTERPRISES, INC.	CV	128		Yes	54956	EXITO	54956	EXITO	N	N	Y	Y	N	Y	Y
96	LLC3336	LLG4595	BELLAMY, RAYMOND	CV	120	Interim	No	61954	FARRAR SEA	61954	FARRAR SEA	N	N	Y	Y	N	Y	N
97	LLC2941	LLG2940	FARWEST LEADER PARTNERSHIP ET AL.	CV	124	Interim	No	35683	FARWEST LEADER	35683	FARWEST LEADER	N	N	Y	Y	N	N	Y
98	LLC3472	LLG3471	MEZICH ALLEGIANCE, INC. ET AL.	CV	168		Yes	55111	FIERCE ALLEGIANCE	55111	FIERCE ALLEGIANCE	N	N	Y	Y	N	N	N
99	LLC2156	LLG2155	NEPTUNE, LLC	CV	165		Yes	55123	FIERCE CONTENDER	55123	FIERCE CONTENDER	N	N	Y	Y	N	N	Y
100	LLC3303		FOUR DAUGHTERS, INC.	CV	108	Interim	No	41444	FOUR DAUGHTERS	41444	FOUR DAUGHTERS	N	N	Y	Y	N	Y	N
101	LLC1788		ELLINGWORTH, RANDY	CV	38		Yes	39684	NIGHTHAWK	35679	GAVIN D	N	N	N	N	Y	N	N
102	LLC3401		PENINSULA SALMON, INC.	CV	108		Yes	24923	GAYLA MAUREEN	24923	GAYLA MAUREEN	N	N	Y	Y	N	Y	Y
103	LLC3757		SAN JUAN SEAFOODS, INC	C/P	180		Yes	59456	GLACIER ENTERPRISE	59456	GLACIER ENTERPRISE	Y	N	Y	Y	N	N	N
104	LLC2206	LLG2205	FLYING CLOUD PARTNERSHIP	CV	124		Yes	32473	GLADIATOR	32473	GLADIATOR	N	N	Y	Y	N	N	N
105	LLC3735	LLG3734	GOLDEN DAWN, LLC	CV	149		Yes	35887	GOLDEN DAWN	35887	GOLDEN DAWN	N	N	Y	Y	N	N	N
106	LLC3858	LLG3855	GOLDEN PISCES, INC.	CV	118		Yes	32817	GOLDEN PISCES	32817	GOLDEN PISCES	N	N	Y	N	N	N	N
107	LLC2345	LLG2344	DIAMONDBACK SEAFOODS, INC.	CV	124		Yes	55849	GRAND DUCHESS	55849	GRAND DUCHESS	N	Y	Y	Y	N	Y	Y
108	LLC4757	LLG2406	NEWMAN, ARTHUR	CV	59	Interim	No	45329	PAMELA KAY	48895	GRIZ	N	N	N	Y	N	Y	N
109	LLC3213	LLG3212	SNOW KING, INC. ET AL.	CV	119		Yes	61571	GUARDIAN	61571	GUARDIAN	N	N	Y	Y	N	N	Y
110	LLC2570	LLG4368	CASTILLO, JOSE RAUL	CV	113	Interim	No	21730	GUIDING STAR	21730	GUIDING STAR	N	Y	Y	Y	N	Y	Y
111	LLC3135		DRAGSETH, JOSEPH	CV	124		Yes	38999	GULF WINDS	38999	GULF WINDS	N	N	Y	Y	N	N	N
112	LLC1997	LLG1996	ILDIKUSO FISHERIES, INC.	CV	173		Yes	41312	GUN-MAR	41312	GUN-MAR	N	N	Y	Y	N	N	N
113	LLC4845	LLG4638	HIGH SPIRIT, INC.	CV	114	Interim	No	83219	HIGH SPIRIT	83219	HIGH SPIRIT	N	N	Y	Y	N	Y	N
114	LLC4379	LLG4378	DAR-JEN, INC.	CV	100	Interim	No	35167	HOLY CROSS	35167	HOLY CROSS	N	N	Y	Y	N	N	Y

1 AFA I.C.; 2 AFA M.S.; 3 B.S.A.I.K.C.; 4 G.O.A.K.C.; 5 K.S.H.S.K.C.; 6 P.H.S.K.C.; 7 S.M.K.C.

4/1/02
NMFS/AKR/RAM/Gharrett

List of Current LLP Cra › Licenses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
25																		
26																		
27																		
28																		
29																		
30																		
31	LLC3844	LLG3843	HORIZON FISHERIES, LLC	CV	148		Yes	2808-I	HORIZON	29089	HORIZON	N	N	Y	Y	N	N	Y
32	LLC3664	LLG3663	HUSKY CO-OWNERS	CV	133		Yes	964-	HUSKY	964	HUSKY	N	N	Y	Y	N	Y	Y
33	LLC2874		ICELANDER, INC.	CV	121		Yes	2	CE LANDER	2	ICE LANDER	Y	Y	Y	Y	N	N	Y
34	LLC1725	LLG1724	ICY BAY, INC.	CV	139		Yes	35281	CY BAY	35286	ICY BAY	N	N	Y	Y	N	Y	N
35	LLC1720	LLG1719	GUNDERSON, ROBERT	CV	59		Yes	44575	CY MIST	44575	ICY MIST	N	N	N	Y	N	Y	N
36	LLC3249		INCENTIVE FISHERIES, LLC	CV	106		Yes	6300-I	NCENTIVE	65000	INCENTIVE	N	N	Y	Y	N	N	Y
37	LLC3661	LLG3660	BEAUDIN, DAVID	CV	59		Yes	3300-I	NFIDEL	33003	INFIDEL	N	N	N	N	Y	N	N
38	LLC2056	LLG2057	JOHNSON, CHARLES	CV	98		Yes	671C	RENE H	6710	IRENE H	N	N	Y	Y	N	Y	N
39	LLC2172	LLG2171	RAINIER INVESTMENTS, INC.	CV	166		Yes	3523-I	SA FJORD	35233	ISA FJORD	Y	N	Y	Y	N	N	Y
40	LLC3382	LLG4642	EVANS, GLEN	CV	124	Interim	No	6179	SLAND MIST	61791	ISLAND MIST	N	N	Y	Y	N	N	Y
41	LLC1792	LLG1791	MULLEN, VICTOR ET AL.	CV	124	Interim	No	557E	JADE ALASKA	5575	JADE ALASKA	N	N	Y	Y	N	N	N
42	LLC1733	LLG1732	FAIRWEATHER FISHERIES, INC.	CV	98		Yes	1496-I	JEANOAH	14983	JEANOAH	N	N	Y	Y	N	Y	Y
43	LLC3379	LLG4640	ST. GEORGE MARINE, INC.	CV	113	Interim	No	3874-I	IT GEORGE	35277	JENNIFER A	N	Y	Y	Y	N	Y	Y
44	LLC2478		FOOTE, RICHARD	CV	37		Yes	5585-	UDALEE	55854	JUDALEE	N	N	N	N	Y	N	N
45	LLC1795		FARLEY, HOWARD	CV	38		Yes	6127-I	IU BOB	9789	JULIANA III	N	N	N	N	Y	N	N
46	LLC3553		KARI MARIE FISHERIES, LLC	CV	124		Yes	5050	CARI MARIE	50501	KARI MARIE	N	Y	Y	Y	N	N	Y
47	LLC3332	LLG4587	KARIN LYNN FISHERIES, INC.	CV	127	Interim	No	524	CARIN LYNN	524	KARIN LYNN	N	N	Y	Y	N	Y	Y
48	LLC3687		F/V KATIE K & OWNERS	CV	124		Yes	2033-	CATIE K	20334	KATIE K	N	Y	Y	Y	N	N	Y
49	LLC3692	LLG3691	F/V KETA, INC.	CV	116	Interim	No	718E	CETA	7189	KETA	N	N	Y	Y	N	Y	Y
50	LLC4752	LLG3377	BOSKOFSKY, MICHAEL	CV	43	Interim	No	3791■	TE JA	68168	KIMBERLY ROSE	N	N	Y	N	N	N	N
51	LLC1729	LLG1728	KIRSTEN MARIE FISHERIES, LLC	CV	120		Yes	22	KIRSTEN MARIE	22	KIRSTEN MARIE	N	N	Y	Y	N	Y	Y
52	LLC3118		KISKA SEA PARTNERSHIP ET AL.	CV	128		Yes	6115-	SKA SEA	61154	KISKA SEA	N	Y	Y	Y	N	Y	Y
53	LLC1370		RASMUSSEN, JOHN	CV	53		Yes	6637	NIK	66371	KNIK	N	N	N	N	Y	N	N
54	LLC1453	LLG1452	LONGRICH ENTERPRISES, INC. ET AL.	CV	124		Yes	352E	ODIAK	3525	KODIAK	N	Y	Y	Y	N	N	Y
55	LLC3879		KODIAK QUEEN, INC.	CV	145		Yes	645E	ODIAK QUEEN	6459	KODIAK QUEEN	N	N	Y	Y	N	N	Y
56	LLC3886	LLG4427	ANGLIN, THOMAS	CV	124	Interim	No	5134-	ONA KAI	51347	KONA KAI	N	N	Y	Y	N	Y	Y
57	LLC2701	LLG2700	JOYCE, BRUCE	CV	124		Yes	4007	RISTEN GAIL	40071	KRISTEN GAIL	N	N	Y	Y	N	Y	Y
58	LLC3340	LLG4509	REHDER, CHARLES	CV	120	Interim	No	6021■	USTATAN	60210	KUSTATAN	N	N	Y	Y	N	Y	N
59	LLC2007	LLG2006	LABRADOR GROUP	CV	133		Yes	1212■	ABRADOR	12128	LABRADOR	N	N	Y	Y	N	Y	Y
60	LLC3804	LLG4484	SUYDAM, KEVIN	C/P	180	Interim	No	5517■	RCTIC DISCOVER	61351	LADY ALASKA	Y	Y	Y	Y	N	Y	Y
61	LLC4552	LLG4551	SUYDAM, KEVIN	CV	138	Interim	No	6135	ADY ALASKA	61351	LADY ALASKA	Y	Y	Y	Y	N	N	Y
62	LLC3337	LLG4503	SUYDAM, KEVIN	CV	124	Interim	No	4171■	ADY ALEUTIAN	41715	LADY ALEUTIAN	N	N	Y	Y	N	N	Y
63	LLC1960	LLG1959	LADY BLACKIE, INC.	CV	108		Yes	5812■	ADY BLACKIE	58129	LADY BLACKIE	N	N	Y	Y	N	Y	N
64	LLC3737	LLG4827	TENNISON, HELEN	CV	108		Yes	66	ADY HELEN	66	LADY HELEN	N	N	Y	Y	N	N	Y
65	LLC3930	LLG4584	SEVENTH SON, INC. ET AL.	CV	109	Interim	No	4482■	ADY JESSIE	44829	LADY JESSIE	N	N	Y	Y	N	N	Y
66	LLC2223	LLG2222	LADY JOANNE, INC.	CV	59		Yes	6292■	ADY JOANNE	62922	LADY JOANNE	N	N	N	Y	N	Y	N
67	LLC6383		SUYDAM, KEVIN	CV	154		Yes	3552■	ADY KISKA	35522	LADY KISKA	Y	N	Y	Y	N	N	Y
68	LLC3264	LLG4542	SUYDAM, KEVIN	CV	126	Interim	No	6135■	ADY KODIAK	61352	LADY KODIAK	N	N	Y	Y	N	N	Y
69	LLC1279	LLG1278	SIMPSON, KENNETH	CV	115		Yes	3080	ADY SIMPSON	30801	LADY SIMPSON	N	N	Y	Y	N	N	N
70	LLC3274	LLG3273	NORDIC MARINE, INC.	CV	119		Yes	4782■	AST FRONTIER	47828	LAST FRONTIER	Y	Y	Y	Y	N	Y	Y
71	LLC1671	LLG1670	LISA MARIE FISHERIES, LLC	CV	108	Interim	No	4085■	APE DEVINE	70221	LISA MARIE	N	N	Y	Y	N	Y	N
72	LLC3788	LLG3787	TRIDENT SEAFOODS CORPORATION	CV	124		Yes	6065■	AJESTY	60650	MAJESTY	N	N	Y	Y	N	N	N
73	LLC2648	LLG2645	MAR DEL SUD, LTD.	CV	124		Yes	2165■	AR DEL SUD	21652	MAR DEL SUD	N	N	Y	Y	N	N	Y
74	LLC3629	LLG3628	MARGUN ENTERPRISES, LLC	CV	124		Yes	1211■	AR-GUN	12110	MAR-GUN	N	N	Y	Y	N	N	Y
75	LLC1649	LLG1648	GREAT WEST SEAFOODS, L.P.	CV	124		Yes	3167■	ARGARET LYN	31672	MARGARET LYN	N	N	Y	Y	N	N	Y
76	LLC2638	LLG2637	MARK I, INC.	CV	119		Yes	644C	ARK I	6440	MARK I	N	N	Y	Y	N	N	N
77	LLC3196		F/V MAVERICK, LLC	CV	110		Yes	4570■	AVERICK	45705	MAVERICK	N	N	Y	Y	N	Y	Y
78	LLC2763	LLG4404	MELANIE, INC.	CV	102	Interim	No	2036■	ELANIE	20369	MELANIE	N	N	Y	Y	N	Y	Y
79	LLC3660	LLG3679	JOHNSON, CHARLES	CV	102		Yes	65	IDNITE SUN	65	MIDNITE SUN	N	N	Y	Y	N	Y	N
80	LLC4650	LLG4649	LOVEJOY, STEPHEN	CV	59	Interim	No	3782■	ISS JULI	37825	MISS JULI	N	Y	Y	N	N	N	N
81	LLC1485		MISTY BLUE, INC.	CV	106		Yes	4989■	ISTY BLUE	49892	MISTY BLUE	N	N	Y	Y	N	N	Y
82	LLC1716		FOX, ARTHUR	CV	103		Yes	3463■	ITROFANIA	34635	MITROFANIA	N	N	Y	Y	N	N	N
83	LLC3733		SOUTH ATLANTIC FISHERIES, LLC	C/P	180		Yes	6277■	ACIFIC ORION	34905	MRS	N	N	Y	Y	N	N	Y
84	LLC2555	LLG2554	MUIR MILACH, INC.	CV	100		Yes	4102-	UIR MILACH	41021	MUIR MILACH	N	Y	Y	Y	N	N	N
85	LLC3047	LLG3046	ARCTIC VENTURES, INC.	C/P	166		Yes	5550-	ERING EMPIRE	62920	MYSTERY BAY	N	Y	Y	Y	N	N	N
86	LLC4528	LLG4527	ARCTIC VENTURES, INC.	CV	166	Interim	No	6292■	YSTERY BAY	62920	MYSTERY BAY	N	Y	Y	Y	N	N	Y

Sequind Fisheries

1 AI.U.K.C. ; 2 A.I.U.K.C. ; 3 B.S.A.I.U.B.C. ; 4 B.B.H.K.C. ; 5 N.S.I.H.K.C. ; 6 P.W.H.K.C. ; 7 S.I.M.K.C.

4/1/02
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List of Current LLP Crab Licenses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R
87																	
88																	
89																	
90																	
91																	
92																	
93	LLC2629	LLG2628	NORDIC STAR FISHERIES ET AL.	CV	121	Interim	No	4	NEW VENTURE	4	NEW VENTURE	N	N	Y	Y	N	Y	Y
94	LLC3010	LLG3009	NEHUS, ROBERT	CV	59		Yes	1792	NIRVANA	1792	NIRVANA	N	N	Y	N	N	N	N
95	LLC2821	LLG2820	FURY GROUP, INC.	CV	124		Yes	200	NORDIC FURY	200	NORDIC FURY	N	N	Y	Y	N	N	Y
96	LLC2309		NORDIC MARINER, LLC	CV	124		Yes	222	NORDIC MARINER	222	NORDIC MARINER	N	N	Y	Y	N	Y	Y
97	LLC3577	LLG3576	KALDESTAD FISHERIES LTD.	CV	124	Interim	No	40600	NORTHWEST MARIN	222	NORDIC MARINER	N	Y	Y	Y	N	N	Y
98	LLC2093	LLG2092	BLUE BOATS CORP.	CV	124		Yes	981	NORDIC STAR	981	NORDIC STAR	N	N	Y	Y	N	N	N
99	LLC3989	LLG3988	NORDIC VIKING, LLC ET AL.	CV	130		Yes	8500	NORDIC VIKING	8500	NORDIC VIKING	N	N	Y	Y	N	Y	Y
100	LLC3297		WATSON, GENE	CV	124		Yes	22406	NORSEMAN	22406	NORSEMAN	N	N	Y	Y	N	N	Y
101	LLC3097		NORTH AMERICAN, INC.	CV	124		Yes	25216	NORTH AMERICAN	25216	NORTH AMERICAN	N	N	Y	Y	N	N	Y
102	LLC3256	LLG3256	N.P. FISHERIES, INC. ET AL.	CV	115		Yes	6205	NORTH PACIFIC	6205	NORTH PACIFIC	Y	N	Y	Y	N	Y	Y
103	LLC2288	LLG2287	NORTHPOINT FISHERIES	CV	101		Yes	53800	NORTH POINT	53800	NORTH POINT	N	N	Y	Y	N	N	Y
104	LLC1885	LLG1884	KRISTIAN E. POULSEN ENT., INC.	CV	128		Yes	38047	NORTH SEA	38047	NORTH SEA	N	Y	Y	Y	N	Y	Y
105	LLC3581	LLG3580	NORTHERN MARINER, LLC	CV	124		Yes	61223	NORTHERN MARINER	61223	NORTHERN MARINER	N	N	Y	Y	N	N	Y
106	LLC3035		NORTHERN ORION, INC.	CV	184		Yes	31458	NORTHERN ORION	31458	NORTHERN ORION	N	N	Y	Y	N	Y	Y
107	LLC5186		NORTHERN ORION, INC.	CV	184	Interim	No	14850	ST. MATTHEW	31458	NORTHERN ORION	N	N	Y	Y	N	Y	Y
108	LLC3031	LLG3030	GOULD, ARCHIE	CV	118		Yes	59578	NORTHERN SPIRIT	59578	NORTHERN SPIRIT	N	N	Y	Y	N	N	N
109	LLC3276	LLG3275	HANSEN ENTERPRISES, INC.	CV	126	Interim	No	29982	NORTHWESTERN	29982	NORTHWESTERN	N	N	Y	Y	N	N	Y
110	LLC3560		RASMUSSEN, ROY	CV	124	Interim	No	35733	NORTHWIND	35733	NORTHWIND	N	Y	Y	Y	N	Y	N
111	LLC3613	LLG3612	NOTORIOUS PARTNERSHIP ET AL.	CV	130	Interim	No	987	NOTORIOUS	987	NOTORIOUS	N	N	Y	Y	N	N	Y
112	LLC3813	LLG4410	NUKA ISLAND, INC. ET AL.	CV	124	Interim	No	35640	NUKA ISLAND	35640	NUKA ISLAND	N	N	Y	Y	N	N	Y
113	LLC3844	LLG3843	OCEAN CAPE, LLC	CV	118	Interim	No	29923	OCEAN CAPE	29923	OCEAN CAPE	N	N	Y	Y	N	Y	Y
114	LLC1539	LLG1538	FURY GROUP, INC.	CV	124		Yes	97	OCEAN FURY	97	OCEAN FURY	N	Y	Y	Y	N	Y	Y
115	LLC2326	LLG2325	HARVESTER ENTERPRISES, LLC	CV	124		Yes	101	OCEAN HARVESTER	101	OCEAN HARVESTER	N	N	Y	Y	N	N	Y
116	LLC3946	LLG3944	OCEAN FISHERIES, LLC	CV	120		Yes	40924	OCEAN HUNTER	40924	OCEAN HUNTER	N	N	Y	Y	N	Y	N
117	LLC3941	LLG3940	OCEAN OLYMPIC FISHERIES, INC.	CV	168		Yes	56111	OCEAN OLYMPIC	56111	OCEAN OLYMPIC	Y	N	Y	Y	N	Y	Y
118	LLC3858	LLG3858	OCEAN STORM FISHERIES, INC.	CV	59	Interim	No	64667	OCEAN STORM	64667	OCEAN STORM	N	N	N	N	N	Y	N
119	LLC2806	LLG2804	LANGESATER FISHERIES, INC. ET AL.	CV	124		Yes	3404	OCEANIC	3404	OCEANIC	N	N	Y	Y	N	N	N
120	LLC2540	LLG2539	FURY GROUP, INC.	CV	124		Yes	33	PACIFIC FURY	33	PACIFIC FURY	N	N	Y	Y	N	N	Y
121	LLC3583	LLG3582	PAC MARINER, LLC	CV	126		Yes	7	PACIFIC MARINER	7	PACIFIC MARINER	N	N	Y	Y	N	Y	Y
122	LLC2762	LLG2761	STEELE, JEFF	CV	104		Yes	41	PACIFIC MIST	41	PACIFIC MIST	N	N	Y	Y	N	Y	N
123	LLC2753	LLG2752	CAPRICE, INC. ET AL.	CV	103		Yes	3	CAPRICE	48086	PACIFIC SOJOURN	N	N	Y	Y	N	Y	N
124	LLC3887		HUELLE ENTERPRISES, INC.	CV	180	Interim	No	59521	PACIFIC STAR	59621	PACIFIC STAR	Y	N	Y	Y	N	N	N
125	LLC1923	LLG1922	DEAVER, DENNIS	CV	122		Yes	35977	PACIFIC SUN	35977	PACIFIC SUN	N	N	Y	Y	N	Y	Y
126	LLC2943	LLG2942	FAIRWEATHER FISHERIES, INC.	CV	124	Interim	No	988	PACIFIC VENTURE	988	PACIFIC VENTURE	N	N	Y	Y	N	Y	Y
127	LLC3417		RAINIER INVESTMENTS, INC. ET AL.	CV	124		Yes	20734	PARAGON	20734	PARAGON	N	N	Y	Y	N	N	Y
128	LLC3716		KOS, INC.	C/P	130		Yes	35767	PATRICIA LEE	35767	PATRICIA LEE	Y	Y	Y	N	N	N	Y
129	LLC1740	LLG1739	PAVLOF, INC.	C/P	156		Yes	37374	PAVLOF	37374	PAVLOF	N	N	Y	Y	N	Y	Y
130	LLC3356	LLG4615	F/V PINNACLE, INC.	CV	158	Interim	No	61611	PINNACLE	71174	PINNACLE	N	N	Y	Y	N	N	N
131	LLC3295	LLG4564	MGF FISHERIES, INC.	CV	124	Interim	No	36822	POLAR LADY	36822	POLAR LADY	N	N	Y	Y	N	Y	Y
132	LLC1826	LLG1825	POLAR SEA PARTNERSHIP	CV	124		Yes	300	POLAR SEA	300	POLAR SEA	N	N	Y	Y	N	Y	Y
133	LLC2080		GOLDEN SHAMROCK, INC. ET AL.	C/P	171		Yes	53810	PRO SURVEYOR	53810	PRO SURVEYOR	N	N	Y	Y	N	N	N
134	LLC2781		PROVIDER, INC.	CV	138		Yes	58	PROVIDER	58	PROVIDER	N	N	Y	Y	N	N	Y
135	LLC2170		RAINIER INVESTMENTS, INC.	CV	124		Yes	966	RAINIER	966	RAINIER	N	N	Y	Y	N	N	Y
136	LLC1158		F/V RAMBLIN' ROSE, INC.	CV	124		Yes	59686	RAMBLIN' ROSE	59686	RAMBLIN' ROSE	N	N	Y	Y	N	N	Y
137	LLC3020	LLG4476	KING, MICHEAL ET AL.	CV	118	Interim	No	34189	REBEL	34189	REBEL	Y	Y	Y	Y	N	N	Y
138	LLC1968	LLG1965	NEWBY, RICHARD	CV	98	Interim	No	32039	RED BARON	32039	RED BARON	N	N	Y	Y	N	N	N
139	LLC3333	LLG4589	RELIANCE, INC.	CV	185	Interim	No	53779	RELIANCE	53779	RELIANCE	N	N	Y	Y	N	N	Y
140	LLC3669	LLG3868	RETRIEVER CO-OWNERS	CV	133		Yes	35199	RETRIEVER	35199	RETRIEVER	N	N	Y	Y	N	Y	Y
141	LLC3107	LLG4497	LIGHTSHIP, INC.	CV	108	Interim	No	58966	ROGUE	58956	ROGUE	N	Y	Y	Y	N	N	N
142	LLC1591	LLG1300	SVINO, RAGNVALD ET AL.	CV	124		Yes	30	ROLLO	30	ROLLO	N	N	Y	Y	N	Y	Y
143	LLC1754	LLG1753	ROYAL AMERICAN FISHERIES, LLC	CV	124		Yes	40840	ROYAL AMERICAN	40840	ROYAL AMERICAN	N	N	Y	Y	N	N	N
144	LLC3742		SAN JUAN SEAFOODS, INC	C/P	212		Yes	61162	ROYAL ENTERPRISE	61182	ROYAL ENTERPRISE	Y	N	Y	Y	N	N	N
145	LLC1731	LLG1730	ROYAL PACIFIC, LLC	CV	116		Yes	6900	ROYAL PACIFIC	6900	ROYAL PACIFIC	N	N	Y	Y	N	N	Y
146	LLC2236	LLG2236	ROYAL VIKING, INC.	CV	124		Yes	3718	ROYAL VIKING	3718	ROYAL VIKING	N	N	Y	Y	N	N	Y
147	LLC3962	LLG3961	RUFF & READY, INC. ET AL.	CV	108		Yes	53	RUFF & READY	53	RUFF & READY	N	N	Y	Y	N	Y	N
148	LLC3354		HINER, TODD	CV	124		Yes	11022	SAGA	11022	SAGA	N	N	Y	Y	N	N	Y

1 AI.KRC ; 2 KIIRC. ; 3 SSATOUC ; 4 BRDKC. ; 5 NSKRKC ; 6 PRDKC. ; 7 STARKC.

4/1/02
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List of Current LLP Crab Licenses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
49																		
50																		
51																		
52																		
53																		
54																		
55	LLC3590		HEUKER BROS., INC.	CV	126		Yes	56280	CHEVAK	70770	SANDRA FIVE	N	N	Y	Y	N	N	Y
56	LLC3706	LLG3704	SAVAGE, INC.	CV	91		Yes	38639	KAMISHAK QUEEN	61150	SAVAGE	N	N	Y	Y	N	Y	N
57	LLC3336	LLG3335	SCANDIES LTD PARTNERSHIP	CV	130		Yes	35318	SCANDIES ROSE	35318	SCANDIES ROSE	N	N	Y	Y	N	Y	Y
58	LLC3224	LLG3223	F/V SEA ERN & OWNERS	CV	124		Yes	6448	SEA ERN	6448	SEA ERN	N	Y	Y	Y	N	Y	Y
59	LLC3917		SEA FISHER LLC	CV	166		Yes	9187	SEA FISHER	9187	SEA FISHER	N	N	Y	Y	N	Y	Y
60	LLC2289		SEA SPRAY, LLC	CV	114		Yes	66	SEA SPRAY	66	SEA SPRAY	N	N	Y	Y	N	N	Y
61	LLC2546	LLG2545	HENDRICKS, LARRY	CV	124	Interim	No	997	SEA STAR	997	SEA STAR	N	N	Y	Y	N	Y	Y
62	LLC1896	LLG1895	SEA STORM LIMITED PARTNERSHIP	CV	124		Yes	40869	SEA STORM	40869	SEA STORM	N	N	Y	Y	N	N	Y
63	LLC3559	LLG3558	GUNN SEA VENTURE, LLC	CV	124		Yes	8225	SEA VENTURE	8225	SEA VENTURE	Y	Y	Y	Y	N	N	Y
64	LLC3870		THREE RIVERS, INC. OF ANACORTES	CV	108		Yes	60224	LADY SELKET	60804	SEA WARRIOR	N	N	Y	Y	N	N	N
65	LLC3675	LLG3674	KENDRICK BAY LTD. PARTNERS	CV	143		Yes	35057	SEA WOLF	35957	SEA WOLF	N	N	Y	Y	N	N	N
66	LLC2925	LLG2924	FERRIS, WILLARD	CV	124		Yes	36800	SEABROOKE	36800	SEABROOKE	N	N	Y	Y	N	Y	Y
67	LLC2790	LLG2789	FY FISHERIES, INC. ET AL.	CV	124		Yes	77	SEADAWN	77	SEADAWN	N	N	Y	Y	N	N	N
68	LLC3330	LLG3329	KENNEDY, TIMOTHY	CV	127		Yes	61333	SECRET ISLAND	61333	SECRET ISLAND	N	N	Y	Y	N	Y	Y
69	LLC3641		MATTSEN FISHERIES, INC.	CV	118		Yes	32554	ENDURANCE	36	SHAMAN	N	N	Y	Y	N	Y	Y
70	LLC2577	LLG2576	MATTSEN FISHERIES, INC.	CV	124		Yes	36	SHAMAN	36	SHAMAN	N	N	Y	Y	N	N	Y
71	LLC1971	LLG1970	ALEUTIAN SHELLFISH, INC. ET AL.	CV	109		Yes	6101	SHELLFISH	6101	SHELLFISH	N	N	Y	Y	N	N	Y
72	LLC1734		SHISHALDIN BOAT COMPANY	CV	124		Yes	38923	SHISHALDIN	38923	SHISHALDIN	Y	N	Y	Y	N	Y	Y
73	LLC3197		SIBERIAN SEA PARTNERSHIP ET AL.	CV	137		Yes	62424	SIBERIAN SEA	62424	SIBERIAN SEA	N	N	Y	Y	N	N	Y
74	LLC3326	LLG3325	SILENT LADY, INC.	CV	150		Yes	51841	SILENT LADY	51841	SILENT LADY	N	N	Y	Y	N	Y	N
75	LLC3276	LLG3277	BREKKAA FISHERIES, INC.	CV	126	Interim	No	121	SILVER DOLPHIN	121	SILVER DOLPHIN	N	N	Y	Y	N	Y	Y
76	LLC3884	LLG3883	SILVER SPRAY SEAFOODS, LLC	C/P	124		Yes	60860	SILVER SPRAY	60860	SILVER SPRAY	N	N	Y	Y	N	N	Y
77	LLC5162	LLG5161	SITKIN ISLAND, INC.	C/P	168	Interim	No	56155	ARCTIC ORION	14896	SITKIN ISLAND	N	N	Y	Y	N	N	N
78	LLC3033		SITKIN ISLAND, INC.	CV	160		Yes	14896	SITKIN ISLAND	14896	SITKIN ISLAND	N	N	Y	Y	N	N	Y
79	LLC3061	LLG3060	ODIAK MARITIME	CV	94		Yes	58239	SNUG HARBOR	58239	SNUG HARBOR	N	N	Y	Y	N	Y	Y
80	LLC3696	LLG3695	NORQUEST SEAFOODS, INC.	C/P	144		Yes	40921	SOUTHERN WIND	40921	SOUTHERN WIND	N	N	Y	Y	N	N	Y
81	LLC1673		SPIRIT OF THE NORTH FISHERIES, INC.	CV	150		Yes	39002	SPIRIT OF NORTH	39002	SPIRIT OF NORTH	Y	N	N	N	N	N	N
82	LLC3191		WINDANCE FISHERIES, INC.	C/P	165	Interim	No	56524	WINDANCE	39002	SPIRIT OF NORTH	N	N	Y	Y	N	N	N
83	LLC1654	LLG1653	LEWIS, JIM	CV	56		Yes	32353	CHERYL	60142	SS DANNY BOY	N	N	N	N	Y	N	N
84	LLC4875	LLG4858	DONOVICK, MARK	CV	59	Interim	No	34394	ROUGHNECK	13437	ST DOMINICK	N	N	Y	N	N	N	N
85	LLC3384		GRONHOLDT, PAUL	CV	59		Yes	18208	ST FRANCIS	18208	ST FRANCIS	N	N	N	N	N	Y	N
86	LLC2097	LLG2098	ALEUTIAN SPRAY FISHERIES, INC.	CV	124		Yes	34831	STARLITE	12	STAR FISH	N	N	Y	Y	N	N	N
87	LLC2095	LLG2094	ALEUTIAN SPRAY FISHERIES, INC.	CV	124		Yes	12	STAR FISH	34931	STARLITE	N	N	Y	Y	N	N	N
88	LLC2099	LLG2098	ALEUTIAN SPRAY FISHERIES, INC. ET AL.	CV	124		Yes	39197	STARWARD	39197	STARWARD	N	N	Y	Y	N	N	N
89	LLC3993		THOMAS, ROBIN ET AL.	CV	37		Yes	55854	JUDALEE	63163	STEPHANIE SUE	N	N	N	N	Y	N	N
90	LLC3903	LLG3902	EVENING STAR, INC.	CV	124		Yes	39860	STORM PETREL	39860	STORM PETREL	N	N	Y	Y	N	N	N
91	LLC2750	LLG2749	DOCHTERMANN, LUDGER	CV	109	Interim	No	17126	BELAIR	46854	STORMBIRD	N	N	Y	Y	N	N	N
92	LLC3849	LLG4467	SULTAN FISHERIES, INC.	CV	130	Interim	No	58039	SULTAN	58039	SULTAN	N	N	Y	Y	N	Y	Y
93	LLC4843	LLG4842	TEMPEST FISHERIES, INC.	CV	124	Interim	No	3716	TEMPEST	3716	TEMPEST	N	N	Y	Y	N	N	Y
94	LLC1625	LLG1624	TIME BANDIT, LLC	CV	124		Yes	65577	TIME BANDIT	65577	TIME BANDIT	N	N	Y	Y	N	Y	Y
95	LLC2187	LLG2186	ALASKA SEAFOOD PRODUCERS, INC. ET AL.	CV	134		Yes	33704	TRAIL BLAZER	33704	TRAIL BLAZER	N	N	Y	Y	N	N	Y
96	LLC3867	LLG3866	B & C FISH COMPANY LLC ET AL.	CV	77		Yes	39777	TRIDENT	39777	TRIDENT	N	N	N	N	Y	N	N
97	LLC3003	LLG3002	WARDS COVE PACKING CO.	CV	124		Yes	8788	TUXEDNI	8788	TUXEDNI	N	N	Y	Y	N	N	N
98	LLC3638	LLG3637	LIBERATOR USA, LLC	C/P	162		Yes	8522	U.S. LIBERATOR	8522	U.S. LIBERATOR	N	N	Y	Y	N	N	Y
99	LLC4019	LLG4809	BOWLDEN, INC.	CV	124	Interim	No	996	VALIANT	996	VALIANT	N	Y	Y	Y	N	Y	Y
00	LLC3530	LLG3529	VESTERAALEN L.L.C.	CV	124		Yes	38342	VESTERAALEN	38342	VESTERAALEN	N	N	Y	Y	N	N	N
01	LLC3777	LLG3776	VIEKODA BAY, LLC	CV	115	Interim	No	159	LIN-J	57971	VIEKODA BAY	N	N	Y	Y	N	N	N
02	LLC3775	LLG3774	VIEKODA BAY, LLC	CV	122	Interim	No	57971	VIEKODA BAY	57971	VIEKODA BAY	N	N	Y	Y	N	N	Y
03	LLC4730	LLG3779	LEE ROSE, INC.	CV	59	Interim	No	45525	VIGILANT	45525	VIGILANT	N	N	Y	N	N	Y	N
04	LLC2625	LLG2624	ROYAL VIKING, INC.	CV	124		Yes	38045	VIKING EXPLORER	38045	VIKING EXPLORER	N	N	Y	Y	N	N	N
05	LLC2351		ICICLE SEAFOODS, INC.	CV	124		Yes	6434	VIKING QUEEN	6434	VIKING QUEEN	N	N	Y	Y	N	N	Y
06	LLC3479	LLG4437	WAHL FISHERIES LLC	CV	103	Interim	No	6899	MASSACRE BAY	70030	VIXEN	N	N	Y	Y	N	N	Y
07	LLC2321	LLG2320	JXP FISHERIES, INC.	CV	124		Yes	963	WEST POINT	963	WEST POINT	N	N	Y	Y	N	N	Y
08	LLC1229	LLG1228	WESTERN VIKING FISHERIES LL C	CV	121		Yes	9069	WESTERN VIKING	9069	WESTERN VIKING	Y	N	Y	Y	N	Y	Y
09	LLC2808	LLG2807	DEAN, HARLAN	CV	108	Interim	No	42736	WESTLING	42736	WESTLING	N	N	Y	Y	N	N	Y
10	LLC3952	LLG3951	HIGHLAND LIGHT SEAFOODS LLC.	C/P	180		Yes	32660	WESTWARD WIND	32660	WESTWARD WIND	N	N	Y	Y	N	N	N

1 AI.B.K.C. ;2 A.I.H.K.C. ;3 B.S.K.T.C.R.C. ;4 B.B.H.K.C. ;5 N.S.R.K.C. ;6 P.K.B.K.C. ;7 S.T.M.B.K.C.

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List of Current LLP Crab Licenses

LLC2061	LLG2060	WINDY BAY, INC.	CV	172		Yes	54094	WINDY BAY	54642	WINDY BAY	N	N	Y	Y	N	N	Y
LLC1481	LLG1480	WIZARD FISHERIES, INC.	CV	156		Yes	35265	WIZARD	35266	WIZARD	N	N	Y	Y	N	N	Y
LLC2920	LLG4457	ZOLOTOI PARTNERSHIP	CV	118	Interim	No	40917	ZOLOTOI	40917	ZOLOTOI	Y	N	Y	Y	N	Y	N
LLC1814		HEUKER BROS., INC.	CV	124		Yes	61718	ZONE FIVE	61718	ZONE FIVE	N	N	Y	Y	N	Y	Y
LLC1905	LLG1905	GILBERT, WILLIAM	CV	108		Yes	62537	ALASKA DAWN			N	N	Y	Y	N	N	Y
LLC3922	LLG3921	NEWMAN FISHERIES INC	CV	59	Interim	No	26280	ALASKAN LADY			N	N	Y	Y	N	Y	N
LLC4733	LLG3113	GILBERT, WILLIAM	CV	59	Interim	No	34697	ALEUTIAN DAWN			N	N	N	N	N	Y	N
LLC4857		SEAWIND FISHERIES GROUP, LLC	C/P	196	Interim	No	57042	AMERICAN EMPIRE		Russia	Y	N	Y	Y	N	N	N
LLC1658	LLG1657	AMERICAN WAY FISHERIES, INC.	CV	120		Yes	47839	AMERICAN WAY			N	N	Y	Y	N	Y	Y
LLC4014		STANISLAUS, ROBERT	CV	38		Yes	66326	ARCTIC CHINOOK			N	N	N	N	Y	N	N
LLC3303	LLG4888	YUKON DELTA FISHERIES, INC. ET AL.	CV	38		Yes	66326	ARCTIC CHINOOK			N	N	N	N	Y	N	N
LLC2386	LLG2385	ARCTIC SUN FISHERIES, INC. ET AL.	CV	133		Yes	37210	ARCTIC LADY			N	N	Y	Y	N	N	Y
LLC3767	LLG3766	SEAWIND FISHERIES GROUP, LLC	C/P	190	Interim	No	62911	ATKA ENTERPRISE		Russia	N	N	Y	Y	N	N	N
LLC1639		F/V NORTH WIND, INC.	CV	156		Yes	63478	AURIGA			N	N	Y	Y	N	N	N
LLC3554		BALLYHOO & OWNERS	CV	167		Yes	3645	BALLYHOO			Y	N	Y	Y	N	N	Y
LLC3889	LLG3888	BERING STAR, LLC	CV	124		Yes	4147	BERING STAR			Y	Y	Y	Y	N	Y	Y
LLC3875		MCNEIL, CHRIS	CV	58		Yes	32352	BLUE DOLPHIN			N	N	N	N	Y	N	N
LLC2252		PAR-PAC, INC.	CV	110		Yes	45066	BOTANY BAY			N	N	Y	Y	N	Y	N
LLC2373		JOHNSON, FRANK	CV	38		Yes	58728	BOYDE J			N	N	N	N	Y	N	N
LLC3881		OSBORNE, ERIC	CV	38		Yes	58728	BOYDE J			N	N	N	N	Y	N	N
LLC3870		SHERMAN, THOMAS	CV	38		Yes	58728	BOYDE J			N	N	N	N	Y	N	N
LLC4746	LLG3389	WILSON, BRIAN	CV	59	Interim	No	4433	BRIGHT RAY			N	N	Y	N	N	N	N
LLC3823		JOHNSON, DONALD	CV	43		Yes	64525	BUDDHA HEAD			N	N	N	N	Y	N	N
LLC5583		RHODES, SEAN	CV	43		Yes	64525	BUDDHA HEAD			N	N	N	N	Y	N	N
LLC3855	LLG4455	SANKO FISHERIES, LLC	C/P	151	Interim	No	32726	CANYON ENTERPRISE			N	N	Y	Y	N	N	Y
LLC1973	LLG1972	M&M FISHERIES, INC.	CV	149		Yes	56966	CENTAURUS			N	N	Y	Y	N	Y	Y
LLC3527	LLG3526	CASTILLO, JOSE RAUL	CV	58		Yes	57855	CHRISTE II			N	N	Y	Y	N	N	N
LLC4371		LUDVICK, ROSEMARY	CV	58	Interim	No	46029	COMPETITION			N	N	Y	N	N	N	N
LLC3263	LLG3262	HAERLING ENTERPRISES, INC. ET AL.	CV	124	Interim	No	6946	CONFIDENCE			N	N	Y	Y	N	Y	Y
LLC3342		CONTROLLER BAY, JOINT VENTURE	CV	106	Interim	No	57847	CONTROLLER BAY			N	N	Y	Y	N	N	Y
LLC3947	LLG4574	COLLINS FISHERIES, INC.	CV	126	Interim	No	59109	CORNELIA MARIE			N	N	Y	Y	N	N	Y
LLC2337		JOHNSON, BRIAN	CV	31		Yes	31723	DANE BOY			N	N	N	N	Y	N	N
LLC3865		JOHNSON, BRUCE	CV	31		Yes	31723	DANE BOY			N	N	N	N	Y	N	N
LLC3290	LLG4557	DECEPTION FISHERIES	CV	126	Interim	No	55840	DECEPTION			N	N	Y	Y	N	Y	N
LLC2888	LLG2887	DEEP SEA HARVESTER, INC.	C/P	180		Yes	54822	DEEP SEA HARVESTER		Russia	N	N	Y	Y	N	N	Y
LLC4481	LLG4480	LEWIS, HAL	CV	42	Interim	No	20330	DIANNA			N	N	N	N	Y	N	N
LLC2196	LLG2194	KECHTER, RONALD ET AL.	CV	59		Yes	45427	DIRTY SALLY			N	N	Y	N	N	N	N
LLC2475		UNOK, ALOYSIUS	CV	31		Yes	64031	DONNA RAEE			N	N	N	N	Y	N	N
LLC3508		SMITH, STEFANI	CV	38		Yes	61278	DU BOB			N	N	N	N	Y	N	N
LLC3193	LLG3192	PEQUOD, INC.	CV	124	Interim	No	103	EARLY DAWN			Y	Y	Y	Y	N	N	Y
LLC2108	LLG2105	EL DAN AK, LTD.	CV	86		Yes	38894	EL DAN			N	N	Y	Y	N	Y	N
LLC3990		FAGERSTROM, CHARLES	CV	38		Yes	61249	ELUSIVE			N	N	N	N	Y	N	N
LLC1185		HEBERT, JAY ET AL.	CV	38		Yes	61240	ELUSIVE			N	N	N	N	Y	N	N
LLC4803		MILLMAN, THOMAS	CV	108	Interim	No	41444	FOUR DAUGHTERS			N	N	Y	Y	N	Y	N
LLC3925		HAMILTON, THEODORE	CV	38		Yes	65328	GRACE-C			N	N	N	N	Y	N	N
LLC2390	LLG4886	YUKON DELTA FISHERIES, INC. ET AL.	CV	39		Yes	65328	GRACE-C			N	N	N	N	Y	N	N
LLC5100	LLG5099	SCHUMACHER, JONATHAN	CV	55	Interim	No	43765	HALCYON			N	N	Y	N	Y	N	N
LLC3934		OBSESSION LIMITED PARTNERSHIP	CV	126		Yes	62438	HANDLER			Y	N	Y	Y	N	N	Y
LLC3956	LLG3955	WILLIAM M BARSTOW III TRUSTEE	CV	103		Yes	60187	HJ SEAS I			N	N	Y	Y	N	N	N
LLC2176		MASTERS, DAN	CV	29		Yes	54321	HOLLY ELAINE			N	N	N	N	Y	N	N
LLC1880		BROCK, STEVE	CV	22		Yes	64088	HOUND			N	N	N	N	Y	N	N
LLC3436		ERICKSON, JEFFREY	CV	38		Yes	56607	ICE PACK			N	N	N	N	Y	N	N
LLC3892	LLG3891	SHADLE, MATTHEW	CV	59	Interim	No	33003	INFIDEL			N	N	N	N	Y	N	N
LLC3711		CHOQUETTE, WILLIAM	C/P	156	Interim	No	54677	JACQUELYN R		Russia	Y	N	Y	Y	N	N	N
LLC3954		MARK MARING II, INC.	C/P	156		Yes	54677	JACQUELYN R		"	Y	N	Y	Y	N	N	N
LLC3859		CLARK, MICHAEL	CV	98	Interim	No	14963	JEANOAH			N	N	Y	Y	N	Y	Y

1 AFA K.C. ; 2 AI H.C. ; 3 B.S.A.I.K.C. ; 4 B.B.H.K.C. ; 5 N.S.H.K.C. ; 6 P.H.K.C. ; 7 S.I.H.K.C.

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List of Current LLP Crab Licenses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R
173																	
174																	
175																	
176																	
177																	
178																	
179	LLC3660		DILL, PATRICIA	CV	38		Yes	45643	JOAN J			N	N	N	N	Y	N	N
180	LLC2021		JOHNSON, HARRY	CV	38		Yes	45643	JOAN J			N	N	N	N	Y	N	N
181	LLC1418	LLG1417	DEEP SEA FISHERIES, INC.	CV	121	Interim	No	130	JODY ANN			N	N	Y	Y	N	N	Y
182	LLC3127	LLG3126	WILSON, COREY	CV	59		Yes	41044	JUST IN CASE			N	N	N	N	N	Y	N
183	LLC2778	LLG2777	KATRINA EM, INC.	CV	121	Interim	No	38972	KATRINA EM			N	N	Y	Y	N	Y	N
184	LLC3462	LLG3461	KEVLEEN K, LLC	CV	124		Yes	960	KEVLEEN K			N	N	Y	Y	N	Y	N
185	LLC3782	LLG3781	SCHUMCHER, JONATHAN	CV	124	Interim	No	16206	KING & WINGE			N	N	Y	Y	N	Y	Y
186	LLC2770	LLG2769	MCFARLAND, FRANK	CV	59		Yes	37807	KITTIWAKE			N	N	N	N	Y	Y	N
187	LLC3719		NOET, ERIK	CV	38		Yes	65465	KVICHAK			N	N	N	N	Y	N	N
188	LLC2167		STILES, NORMAN	CV	38		Yes	65466	KVICHAK			N	N	N	N	Y	N	N
189	LLC1285	LLG1284	FAR NORTH FISHERMEN, INC.	CV	124		Yes	39156	LADY ANN			N	Y	Y	Y	N	Y	Y
190	LLC3305	LLG4884	APICDA VESSELS, INC.	CV	38		Yes	65330	LIL RIVER HAWK			N	N	N	N	Y	N	N
191	LLC5004		HORN, DOUGLAS	CV	38		Yes	65330	LIL RIVER HAWK			N	N	N	N	Y	N	N
192	LLC1184		HEBERT, JAY	CV	38		Yes	41253	LISA J			N	N	N	N	Y	N	N
193	LLC2728		MAGNUM MARITIME FISHERIES	CV	102	Interim	No	38407	MAHALO			N	N	Y	Y	N	N	N
194	LLC2279	LLG2278	MARCY J., INC.	CV	116		Yes	55	MARCY J			N	N	Y	Y	N	N	N
195	LLC2742		KOCH, F. JAMES	CV	120		Yes	40217	MARY J			N	N	Y	Y	N	Y	Y
196	LLC4681		FRANCIS M N'W, LLC	CV	124		Yes	43552	MCKINLEY			N	N	Y	Y	N	Y	N
197	LLC3484	LLG3483	ESTATE OF CARL A KOSO	CV	59		Yes	44852	MELISSA RAE			N	N	N	N	N	Y	N
198	LLC1421		JOHNSON, JOAN	CV	38		Yes	49100	MITCHELL GAYLE			N	N	N	N	Y	N	N
199	LLC3810		JOHNSON, PAUL	CV	38		Yes	49100	MITCHELL GAYLE			N	N	N	N	Y	N	N
200	LLC3965		NEWMAN FISHERIES INC.	CV	120		Yes	7090	MORZHOVOI			N	N	Y	Y	N	Y	Y
201	LLC4335	LLG4334	SAVELIEFF, FRED	CV	90	Interim	No	42529	MS. JULIET			N	N	N	N	Y	N	N
202	LLC3549	LLG3548	MACINKO, JOE	CV	59		Yes	41408	NAKAT			N	N	N	N	Y	N	N
203	LLC3601		BROCK, STEVE	CV	38		Yes	39684	NIGHTHAWK			N	N	N	N	Y	N	N
204	LLC3564		IVANOFF, PAUL	CV	38		Yes	39684	NIGHTHAWK			N	N	N	N	Y	N	N
205	LLC2382	LLG2381	NIEMELA, JAMES	CV	124		Yes	56402	NOR QUEST			N	N	Y	Y	N	Y	Y
206	LLC1243	LLG1242	NORSEMAN FISHERIES, INC.	CV	124		Yes	35830	NORSEMAN II			N	N	Y	Y	N	Y	N
207	LLC3911		WILLIAMS, WILLIAM	CV	122	Interim	No	34488	NORTHERN LADY			Y	N	Y	Y	N	Y	Y
208	LLC2816		KENNEDY, TIMOTHY	CV	135		Yes	38641	NOWITNA			N	Y	Y	Y	N	N	Y
209	LLC2817	LLG2816	STEELE, JEFF	CV	124	Interim	No	34374	OBSESSION			N	N	Y	Y	N	N	Y
210	LLC3195	LLG3194	OCEAN BALLAD, INC. D. Lethin	CV	124		Yes	61605	OCEAN BALLAD			N	N	Y	Y	N	Y	N
211	LLC2068		OCEAN TEMPEST, INC.	CV	158	Interim	No	55044	OCEAN TEMPEST			N	N	Y	Y	N	N	Y
212	LLC2007	LLG2006	SHAISHNIKOFF, LARRY	CV	82		Yes	39190	PEGGY ROSE			N	N	Y	Y	N	Y	Y
213	LLC1891	LLG1890	POLESTAR FISHERIES, INC.	CV	124		Yes	61075	POLESTAR			N	Y	Y	Y	N	Y	Y
214	LLC3598	LLG3597	GUSTAFSON FISHERIES, INC.	CV	84		Yes	52119	PROVIDENCE			N	N	Y	Y	N	N	N
215	LLC3432		SAVETILIK, CLARENCE	CV	36		Yes	51569	RAIDER			N	N	N	N	Y	N	N
216	LLC4743		SANISH MARITIME, INC.	CV	101		Yes	58967	RENEGADE			N	N	Y	Y	N	Y	Y
217	LLC3611		ECKENWEILER, GARY	CV	38		Yes	61674	RUNNING BEAR			N	N	N	N	Y	N	N
218	LLC1650		TOWARAK, CLARENCE	CV	38		Yes	61674	RUNNING BEAR			N	N	N	N	Y	N	N
219	LLC3442		NELSON, SIDNEY	CV	37		Yes	62986	SEA LION			N	N	N	N	Y	N	N
220	LLC3723		SEA ROVER, LLC	CV	124		Yes	124	SEA ROVER			N	N	Y	Y	N	Y	Y
221	LLC3910		ALSTROM, AXEL	CV	38		Yes	65327	SEA-NAT			N	N	N	N	Y	N	N
222	LLC3719		ALSTROM, RAGNAR	CV	38		Yes	65327	SEA-NAT			N	N	N	N	Y	N	N
223	LLC2185	LLG4870	YUKON DELTA FISHERIES, INC.	CV	38		Yes	65327	SEA-NAT			N	N	N	N	Y	N	N
224	LLC3987		PETERSON, RONALD	C/P	166	Interim	No	54744	SEAWIND			Y	N	Y	Y	N	N	N
225	LLC1282		HEBERT, FRANK	CV	38		Yes	39668	SERENDIPITY			N	N	N	N	Y	N	N
226	LLC1940		FAHEY, BRIAN	CV	32		Yes	65842	SIERRA MARIE			N	N	N	N	Y	N	N
227	LLC1994	LLG1993	R.W. BARK CORP.	CV	69		Yes	18767	SPARROW CASTLE			N	N	Y	N	N	N	N
228	LLC3106	LLG3105	PROFS. FISHERMEN'S ASSOC., INC.	CV	172	Interim	No	104	STORMY SEA			Y	Y	Y	Y	N	Y	Y
229	LLC3457	LLG3456	SUSITNA MARITIME, INC.	CV	102		Yes	36361	SUSITNA			N	N	Y	Y	N	Y	Y
230	LLC1801		MARWIN, INC.	CV	112		Yes	34	THERESA MARIE			N	N	Y	Y	N	N	Y
231	LLC2470		K&S LEASING	CV	50		Yes	39532	THOMAS HENRY			N	N	N	N	Y	N	N
232	LLC3994		STILES, DONALD	CV	50		Yes	39532	THOMAS HENRY			N	N	N	N	Y	N	N
233	LLC4860		MORGAN, STAN	CV	50		Yes	39532	THOMAS HENRY			N	N	N	N	Y	N	N
234	LLC3919		WILSON, JOHN	CV	41		Yes	60612	TIA			N	N	N	N	Y	N	N

1 AFA M.C. ; 2 AFA C.V. ; 3 B.S.A.I.C.M. ; 4 B.S.A.I.C.V. ; 5 K.G.R.C.C. ; 6 P.H.M.C. ; 7 S.E.M.C.C.

4/1/02
NMFS/AKR/RAM/Gharrett

List of Current LLP Crab Licenses

LLC2385		WILSON, LAWRENCE & HENRIETTA	CV	41		Yes	60512	TIA	N	N	N	N	Y	N	N
LLC4700	LLG2727	KOSO, ANDREW	CV	59	Interim	No	41509	TROIKA	N	N	N	Y	N	N	N
LLC4481	LLG4490	SLINEY, WILLIAM	C/P	98	Interim	No	59392	VIN-GE	N	N	Y	Y	N	N	Y
LLC1937	LLG1936	SAMISH MARITIME, INC.	CV	102		Yes	58592	WINDWARD	N	N	Y	Y	N	Y	N
LLC1399	LLG4872	APICDA VESSELS, INC.	CV	38		Yes	65329	YUKON MIST	N	N	N	N	Y	N	N
LLC3485		ONEY, RAYMOND	CV	38		Yes	65329	YUKON MIST	N	N	N	N	Y	N	N
LLC3444	LLG4878	PRINCE, ANTHONY	CV	29	Interim	No	64809	YUKON MOUSE	N	N	N	N	Y	N	N

1 AJBK.C ;2 AIRK.C ;3 BSAIOBC.;4 BBRK.C. ;5 NSRBK.C. ;6 PJBK.C. ;7 STMK.C.

Table 3.3-12 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) golden king crab fishery . Figure 3.3-8 is a graph of the distribution in the fishery under the different options. The table and graph show substantial variation in the distribution of the allocations under the different options. The average allocation to the four leading vessels varies by more than 5 percent under the options, with the leading four vessels receiving an average allocation of more than 22 percent under Option 3A and an average allocation of slightly more than 16 percent under Option 1B. Options 1A and 1B include substantially more vessels in the allocation (22 vessels) than the other options (which include between 10 and 14 vessels in their allocations). The median (midpoint) of the allocation distribution is slightly larger under Options 3A and 3B (approximately 4 and 4.5 percent, respectively) than under the other options (all of which have a median of approximately 2.5 percent).

Table 3.3-12 Mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) golden king crab fishery

Fishery	Mean	Median	Average of four largest allocations
Western Aleutian Islands (Adak) Golden King Crab			
Option 1A -1992-1993 to 1998-1999 (All seasons)	0.045	0.022	0.170
Option 1B -1992-1993 to 1998-1999 (Drop one season)	0.045	0.023	0.167
Option 2A -1995-1996 to 1998-1999 (All seasons)	0.071	0.025	0.212
Option 2B -1995-1996 to 1998-1999 (Drop one season)	0.071	0.026	0.210
Option 3A -1996-1997 to 1998-1999 (All seasons)	0.100	0.038	0.223
Option 3B -1996-1997 to 1998-1999 (Drop one season)	0.100	0.046	0.217
Option 4A -1996-1997 to 2000-2001 (Best 4 seasons)	0.091	0.028	0.213

Source: NPFMC Crab Database 2001 - Version 1

Table 3.3-13 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Eastern Aleutian Islands (Dutch Harbor) golden king crab fishery . Figure 3.3-9 is a graph of the distribution in the fishery under the different options. The table and graph show more similarity in the allocations under the different options than in the Western Aleutian Islands (Adak) golden kning crab fishery. The average allocation to the four leading vessels varies by at most 2.5 percent under the options, with the leading four vessels receiving an average allocation of almost 18 percent under Option 2A and an average allocation of almost 15.5 percent under Option 4A. The mean and median allocations, however, differ substantially under the different alternatives. The mean, which is a function of the number of vessels receiving an allocation, ranges from slightly more than 5 percent under Options 1A and 1B to slightly more than 9 percent under Options 3A and 3B. The median (or the midpoint in the allocation distribution) is approximately 1.5 percent under Options 1A and 1B and is almost 9 percent under Option 3B. The reason for the low median allocation under Options 1A and 1B is likely that these allocation alternatives include additional vessels that receive relatively small allocations. The number of vessels receiving an allocation under the Options ranges from 11 under Option 3A and 3B to 19 under Options 1A and 1B.

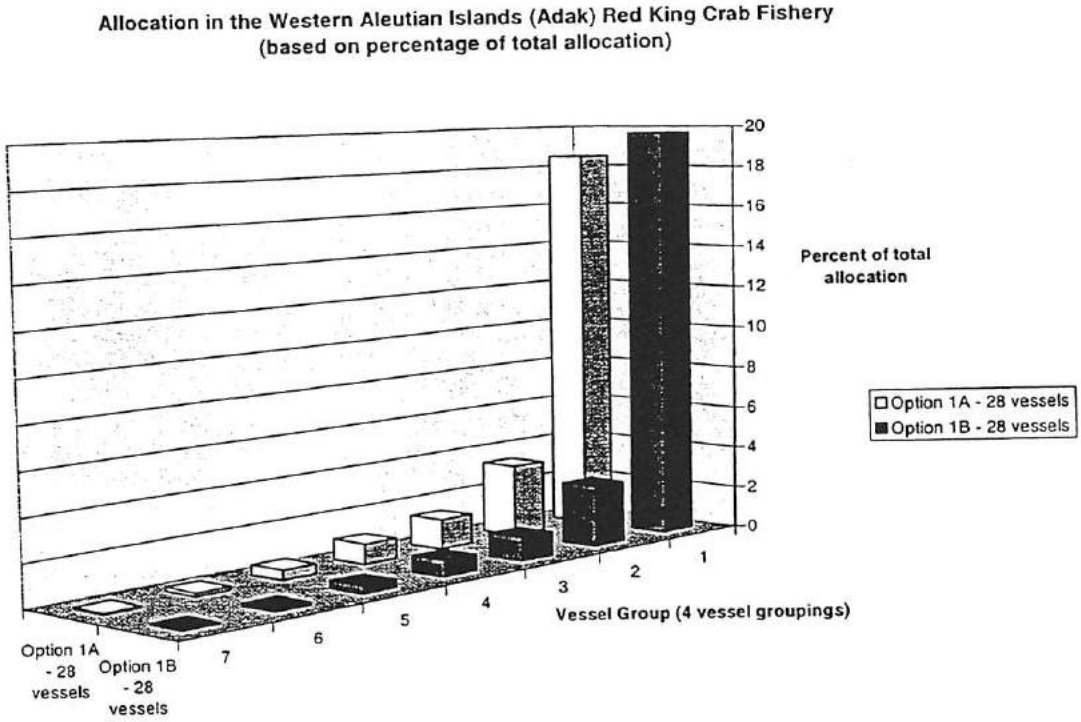
Table 3.3-15 shows the mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) red king crab fishery. Figure 3.3-11 is a graph of the distribution in the fishery under the different options.[25] The average allocation to the four leading vessels is similar under the different options, varying by slightly more than 1 percent. The median (midpoint) allocation differs by less than one-quarter of one percent under the two allocation options. Under both options allocations would be made to 28 vessels.

Table 3.3-15 Mean, median, and average of the four largest allocations under the different qualifying year options in the Western Aleutian Islands (Adak) red king crab fishery

Fishery	Mean	Median	Average of four largest allocations
Western Aleutian Islands (Adak) Red King Crab			
Option 1A -1992 - 1996 (All seasons)	0.036	0.008	0.197
Option 1B -1992 - 1996 (Best 2 seasons)	0.036	0.010	0.185

Source: NPFMC Crab Database 2001 - Version 1

Figure 3.3-11 Allocation in the Western Aleutian Island Red King Crab Fishery



[25]Since this fisher has been closed since the 1995-6 season, no graph of the activity in the fishery is provided, and allocation estimates are based only on the percent of the total allocation.

Larry Cotter
APICDA
C-5

Alternative 1: A CDQ group may operate a shoreside processing facility in a CDQ community without obtaining individual processor quota (IPQ) shares if the CDQ group owns at least fifty percent (50%) of the company:

Option 1: There is no limitation on the amount of crab the CDQ company can purchase and process.

Option 2: The amount of crab that the CDQ company can purchase and process at the facility is limited to no more than four percent (4%) of the TAC for that species for that year. The CDQ company may purchase and process at the facility more than the four percent subject to all other rules applicable to processor quota shares.

Sub-Option 1: Limited to CDQ communities that do not have a shoreside crab processing facility as of April 1, 2002.

Alternative 2: If a processor who owns IPQ shares transfers those shares outside of the community in which the shares were established, a CDQ group may process the same amount of crab at a shoreside processing facility in which it owns at least fifty percent (50%) in the community without the accompanying IPQ shares.

Alternative 3: A CDQ group shall have the right of first refusal to purchase any IPQ shares that may be for sale, providing the IPQ shares purchased shall only be used in a CDQ community at a shoreside processing facility that is owned at least fifty percent (50%) by the CDQ group that purchased the shares.

Alternative 4: In St. George, a CDQ group may process up to eight percent (8%) of the opilio TAC, providing it is processed at a shoreside facility that is owned at least fifty percent (50%) by the CDQ group. In Atka, a CDQ group may process an unlimited amount of the TAC for any Aleutian Islands crab fishery, providing it is processed at a shoreside facility that is owned at least fifty percent (50%) by the CDQ group.

Option 1: No IPQ shares may be processed at that facility.

Alternative 5: IPQ shares that are initially located in St. George may not be processed at any other location.

C-5

Alaska Marine Conservation Council

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April 12, 2002

Agenda Item C-5
Recommendations for Conservation Elements in the Crab Analysis

AMCC remains concerned about the sequence of decisions for crab rationalization. The Council is making a decision about an economic model without complete evaluation of the conservation elements that should be part of such a major management change. The Crab FMP EIS is the place where a full analysis is intended to be done, yet that will be after the major economic decisions have been made.

However, given that we cannot change the sequence of decisions for crab, AMCC recommends the following:

1. Current Analysis for June for final action in June.

   The reason to rationalize the crab fishery is to achieve better conservation of crab populations that are at extremely low abundance and in some case declared overfished. Yet the analysis does not contain clear objectives for conservation and the discussion is not conclusive about how conservation benefits will occur or how assumed benefits will be measured.

   - To the extent possible, the document should contain objectives for conservation. For example, it is widely accepted that longer soak times will result in a lot less discards. What goals do the Council and Board of Fisheries have for bycatch reduction?

   - The document should contain a more rigorous discussion about what will actually happen on the grounds in a rationalized fishery. Some of the issues discussed in the current draft may not represent real life. For example, to what extent will rationalization really lengthen the seasons or will the behavior of the fleet be more influenced by when processors are set up to accept deliveries? Are there conservation implications for season length that should be addressed?

2. Crab Environmental Impact Statement.

   If the June document cannot contain a full conservation section with objectives, options and full analysis, then we urge the Council to ensure that the Crab FMP EIS does.

   - We urge the Council to collaborate with the Board of Fisheries on the EIS to 1) design conservation objectives, 2) develop options for how those objectives will be met and implemented by the Board, and 3) determine how success will be evaluated over time.

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April 9, 2002

David Benton, Chair
North Pacific Fishery Management Council
605 W. 4th Ave.
Anchorage, AK 99501

Dear Chairman Benton,

Attached is a copy of the ***500 Alaskans Open Letter*** to you, Governor Knowles and the Alaska congressional delegation and the petition signed by those 500 Alaskans. AMCC, and a continually growing number of Alaskans, are fully behind conservation and community goals for rationalization.

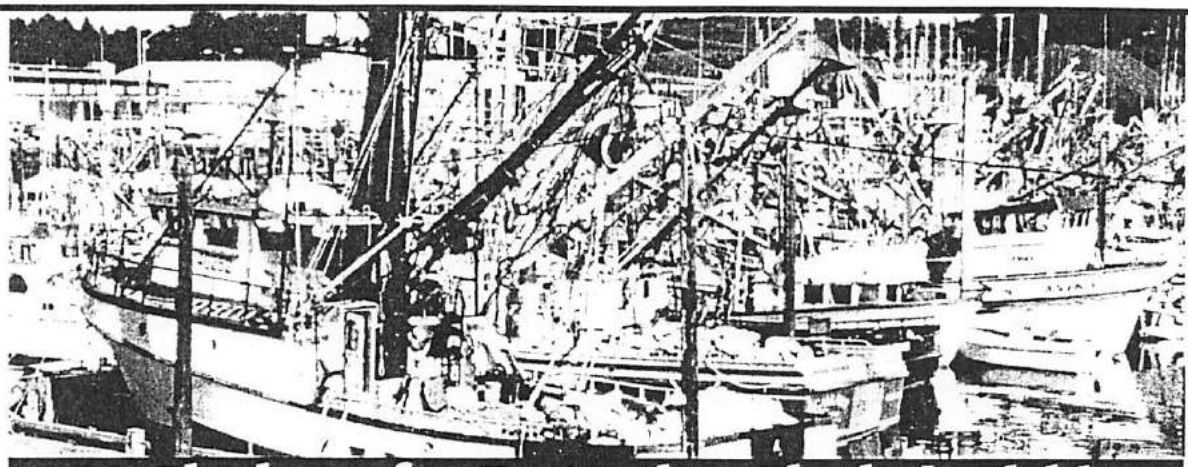
We remain extremely concerned about the economic model that would award quotas to processing corporations to buy and process Alaska's crab and groundfish. We believe there are other and more appropriate ways to support the processing sector that will result in a dynamic and competitive industry open to innovation. As a matter of public policy, we are concerned about processing quota because of the controlling effects on markets, independent fishermen, coastal communities and the public process. We don't think it is the government's job to limit who can buy and process Alaska's fish.

Sincerely,

Dorothy Childers

Dorothy Childers
Executive Director

ANCHORAGE DAILY NEWS
3/13/02



500 Alaskans for Protecting Alaska's Fishing Future and Our Coastal Communities

An Open Letter to Governor Knowles, Senator Stevens, Senator Murkowski and Congressman Young, and the North Pacific Fishery Management Council:

We call on the State of Alaska, Congress, and fishery managers to require clear standards for conservation and communities before any new individual fishing quota or other limited access programs are approved.

We oppose the award of processing quota because of the controlling effect on markets, fishing families, coastal communities, and the public process. Government should not limit to whom Alaska's independent fishermen can sell their catch.

I want our leaders to look out for the next generation of fishing families. Let's keep our livelihoods from going the way of the family farm.

Linda Behnken, Sitka *F/V Morgan*

Alaska's fisheries belong to the people. I want to see the next generation of fishermen work for their families and take care of our heritage.

Bob Storrs, Unalaska

Aataley Alowm; Homer
Rachell Alimuraun; Dutch Harbor
Eric Almocera; Dutch Harbor
Douglas Anderson; Anchor Point
Amanda Appell; Anchorage
[illegible] Arbelovsky; Kenai
[illegible]ert Arnold; Eagle River
[illegible]n Ash; Sitka
[illegible] Awythe; Homer
[illegible]Bacolas; Juneau
[illegible]ndy Baker; Unalaska
Sandy Barclay; Haines
Kent Barkhau; Sitka
William Barnes; Dutch Harbor
Laura Barr; Auke Bay
Alexander Basargin; Homer
Nikolai Basargin; Homer
Simon Basargin; Homer
Nikolai I. Basargin; Homer
Konstantin Basargin; Homer
Kiril Basargin; Homer
Nikita Basargin; Homer
Artemon Basargin; Homer
Vera T. Basargin; Homer
Dave Beam; Girdwood
Wendy Beck; Kodiak
Linda Behnken; Sitka
Nancy Behnken; Sitka
Ray Bellamy; Homer
Michael Bender; Whittier
Francine Benno; Chugiak
Michael Bentley; Valdez
Alvin Berestin; Unalaska
Eric Berglund; Homer
Emil Berikoff Sr.; Unalaska
Nancy Berland; Haines
Richard Berns; Kodiak
Chris Berns; Kodiak
Lacey Berns; Kodiak
Anissa Berry-Fnck; Port Alexander
Alexey Besargin; Homer
Russell Betterton; Sitka
Norman Blank; Haines
Brian Blankenship; Sitka
Annette Blankenship; Sitka
Gordon Blue; Sitka
Sarah Blue; Sitka
Paul Bowen; Petersburg
Craig Brault; Dutch Harbor
James Brennan; Anchorage
Gerald Brookman; Kenai
Mike Brooks; Homer
Steve Brown; Homer
Sharon Brown; Anchorage
Carl Byers; Dutch Harbor
Susan Byersdorfer; Anchorage
Rodrigo Cacilio; Unalaska
Edgar Cailen; Sitka
Steven Campbell; Sitka
James Cantz; Eagle River
Danny Carpenter; Cordova
Glen Carrol; Homer
Paul Castellanc; Anchor Point
Jennifer Castellani; Anchorage
Bob Childers; Anchorage
Dorothy Childers; Anchorage
Bill Choate; Homer
John Chopdie; Homer
Dean Clark; Dillingham
Jim Clauss; Homer
David Cline; Anchorage
Freddie Chossen; Anchorage
David Coleman; Sitka
Jeff Coleman; Unalaska
Florence Collins; Fairbanks
Henry Cooper; Kenai
Debra Corbett; Anchorage
Leroy Cossette; Kodiak
Dean Crane; Homer
Thomas Crane; Sitka
Sanford Crane; Homer
Vern Culp; Sitka
Terry Cummings; Anchorage
Royce Curry; Wasilla
Jack Cushing; Homer
Klaus Czerwony; Unalaska
Paul Dan; Dutch Harbor
Richard Davis; Juneau
Diana Defazio; Anchorage
Robert Dentler; Kaltag
Douglas Deplazes; Kodiak
Kenneth Dewey; Kodiak
Karen Dillon; Eagle River
John Dillon; Eagle River
Patrick Dineen; Dutch Harbor
Nicholas Dirks; Alba
Valane Donaldson; Unalaska
Larry Dooley; Kodiak
Nick Dull; Tokosok Bay
Don Dumm; Kodiak
Willy Dunne; Fritz Creek
William Dushkin; Sand Point
Charles Edwards; Homer
Roma Elmore; Anchor Point
Leonard Eha; Kenai
Harry Elliott; Cordova
Linda Ellsworth; Dutch Harbor
Spence Ellsworth; Dutch Harbor
Thomas Ely; Haines
Ben Enbokhap; Anchorage
Dan Falvey; Sitka
John Faris; Homer
Dan Farrer; Anchorage
Philip Fevaldi; Saint Paul Island
Edess Fefecia; Homer
Erik Fisher; Homer
Oliver Felton; Homer
Duncan Fields; Kodiak
Locke Finley; Kodiak
Steve Fish; Sitka
Toras Fisk; Homer
Bruce Flanigan; Homer
Ellen Flint; Anchorage
Juha Forte; Anchorage
Greg Forte; Anchorage
Barry Fredericks; Dutch Harbor
Albert Fredericks; Unalaska
Philip Fredag; Anchorage
Boris Galaktionoff; Unalaska
Peter Galaktionoff; Unalaska
Vikki Garroutte-Simpson; Nimlchik
Karoly Gaspar; Dutch Harbor
C.O. Gigdecker; Wainwright
David Goldstein; Anchorage
Bob Golodoff; Unalaska
Benjamin Golodoff; Unalaska
Lucio Gonzalez; Unalaska
Deborah Goodell; Kodiak
Harvey Goodell; Kodiak
Phil Gordon; Anchorage
Madeleine Grant; Anchorage
Brenda Greenbank; Juneau
Shoshy Greenberg; Anchorage
John Gregory; Cordova
Jason Gsentsen; Sitka
Ralph Guthrie; Sitka
Frank Gwartney; Anchorage
Mako Haggerty; Homer
Stephen Hall; Unalaska
John Hamik; Homer
Steve Harvey; Palmer
Daniel Harbour; Anchorage
Dean Harker; Dutch Harbor
David Harris; Juneau
Jana Harska; Haines
Charles Harvey; Unalaska
Allan Hayes; Wrangell
Pete Hendrickson; Unalaska
Howard Henning; Dutch Harbor
Ron Hepler; Haines
Kl Herman; Kodiak
Marjorie Hermans; Juneau
Andrea Hernandez; Point Baker
Don Hernandez; Point Baker
Geoffrey Hershberger; Anchorage
Katrina Higbee; Anchorage
Riles Higbee; Anchorage
Roberta Highland; Homer
Raymond Hirsl; Unalaska
Gregory Hoffman; Bethel
Mimi Hogan; Anchorage
Doug Hogen; Kodiak
Kenneth Hoisington; Anchorage
Joleine Holl; Unalaska
Dorothy Holm; Kodiak
Eva Holm; Kodiak
Oliver Holm; Kodiak
Carl Holman; Unalaska
Cora Holmes; Unalaska
Milton Holmes; Unalaska
Bob Hookyman; Dutch Harbor
Todd Hoppe; Homer
Shila Hough; Homer
Mike Hough; Homer
Susan Houlihan, Anchor Point
Lilia Howard; Dutch Harbor
David Huken; Wasilla
Twyla Hunter; Dutch Harbor
Lavro Ivanov; Homer
Nestor Ivanov, Anchor Point
Alexander Ivanov; Homer
Peter Jack; Angoon
Jennie Jacobsen; Unalaska
Andrew Jacobsen Jr.; Unalaska
Nathan Jarajewski; Unalaska
Stanley Lemes; Dutch Harbor
Kari Johnson; Sitka
Terry Johnson; Homer
Bob Johnson; Kodiak
Lynn Johnson; Anchorage
D.R. Johnson; Juneau
Noel Johnson; Sitka
Nancy Jones, Kodiak
Ken Jones; Homer
Gregg Jones; Sitka
Leonard Jones; Wasilla
Steve Kalugin; Homer
Awam Kalugin; Homer
Richard Kamenka; Anchorage
Leonard Kelley; Anchorage
Alan Kelly; Homer
Scott Kerr; Nikolski
John Ketelle; Homer
Katya Kirsch; Juneau
Ron Knop; Dutch Harbor
Shawn Knudsen; Anchorage
Maureen Knutsen; Naknek
Peter A. Kojo; Anchor Point
Dan Kondak; Unalaska
Alana Koney; Homer
Ivan Koney; Homer
Peter A. Koney; Homer
Linda Kozak, Kodiak
Ray Kranch; Homer
George Knukoff; Unalaska
Sergius Knukoff; Unalaska
Hida Kudrin; Unalaska
Kathy Kurtenbach; Fairbanks
Feodosia G. Kuzmin; Delta Junction
Nikita Kuzmin; Homer
Fadey Kuzmin; Homer
Kondra V. Kuzmin; Delta Junction
Nikolai Kuzmin; Homer
Vasily Z. Kuzmin; Delta Junction
Ilia Kuzmin; Homer
Arseny Kuzmin; Homer
Eros Kuzmin; Homer
Rick Ladd; Homer
Alex Laduzko; Homer
Don Lane; Homer
Jeff LaPlant; Dutch Harbor
Fran Latham; Yakutat
Clare Lattimore; Anchorage
Claire Laukitis; False Pass
Claire LeClair; Anchorage
John LeClair; Anchorage
Polly Lee; Petersburg
Peter Lekanoff; Unalaska
Burt Lekanoff; Unalaska
Jack Lentfer; Homer
Mary Lentfer; Homer
Joyce Levine; Juneau
Amy Lewis; Anchorage
Sue Libenson; Haines
Philip Lindley; Anchorage
Bill Lindow; Cordova
Robert Linville; Seward
Shirley Liss; Fairbanks
David Little; Kodiak
Frank Lloyd; Unalaska
Tom Lohman; Anchorage
Tim Longoch; Kodiak
Christopher Loper; Homer
Nancy Lord; Homer
Marie Lowe; Dutch Harbor
Laura Lucas; Juneau
Gerard Lucore; Palmer
John Ludwick; Homer
John Lyle; Fairbanks
Stuart Mach; Kake
Geneva Macinko; Kodiak
Joe Macinko; Kodiak
Jason Mack; King Cove
Summer Mack; King Cove
Dave Magone; Dutch Harbor
James Mahaffey; Anchorage
Sandra Marker; Craig
Kurt Marquardt; Homer
Bob Marquardt; Dutch Harbor
Ben Marsh; Anchorage
Barbara Marsh; Anchorage
Harold Marsh; Juneau
Le Roy Martin; Angoon
Lee Martin, Homer
Juliana Martin; Adak
Iosif Martashev; Homer
Feodor F. Martushev; Homer
Anatoly Martushev; Homer
Ivan Martushev; Homer
Lisa Martushoff; Homer
Mike Martyshoff; Ring Creek
Alex Martushoff; Homer
Sheilie Matthews; Juneau
Laualeie Matlock; Cantwell
Evtropia Matveev; Homer
David Mauers; Homer
Felicia McAuley; Juneau
Michael McConnell; Sitka
Mim McConnell; Sitka
Scott McCracken; Unalaska
Mike McCune; Homer
Susan McLane; Homer
Robert Mee; Dutch Harbor
Vivian Merculeff; Haines
Roberto Mendoza; Dutch Harbor
Eric Meyer; Sitka
Mike Reutov; Anchorage
Bob Mickel; Juneau
Jeremy Miller; Anchorage
Grant Miller; Sitka
Malcolm Milne; Homer
Rick Moore; Homer
John Moore; Homer
Greg Moser; Dutch Harbor
Cyn Muhs; Homer
Eileen Muller; Homer
Clinton Mullins; Cordova
Marie Mundy; Sitka
Bill Murray; Unalaska
Richard Musgrove; Kenai
Eric Myers; Anchorage
Vicente Nuanos; Dutch Harbor
Bob Nehus; Unalaska
Richard Nelson; Sitka
Beaver Nelson; Homer
Joe Newhouse; Anchorage
Sonny Nguyen; Dutch Harbor
James Nienhuis; Homer
Jenny Norris; Anchorage
Carl Nostrand; Homer
Karl Ohls; Juneau
Mike O'Meara; Homer
Linnea Osborne; Douglas
David Otte; Ketchikan
George Overpeck; Homer
George Owletuck; Anchorage
Alan Parks; Homer
Charlie Parsons; Homer
Susan Payne; Kodiak
Stu Pecnek; Fairbanks
Alfred Peeler; Petersburg
Angie Perry; Unalaska
Rena Peterson; Anchorage
Betsy Pitzman; Homer
Ian Pitzman; Homer
Charles Polak; Eagle River
Vladimir Poloshkin; Homer
Michael Poole; Homer
Rebecca Poulson; Sitka
Dick Powell; Kodiak
Sherri Pristash; Fairbanks
Lawrence Prokopeuth; Atka
Kenneth Quirit; Homer
Tim Quirk; Unalaska
Shelley Rainwater; Homer
Marga Raskin; Homer
Charles Rehder; Homer
Nikolai Reutov; Homer
Lazar I. Reutov; Kodiak
George Reutov; Kodiak
Sergei Reutov; Homer
David I. Reutov; Homer
David Reutov; Kodiak
Yakov Reutov; Homer
Joseph Reutov; Kodiak
Severian Reutov; Kodiak
Ivan K. Reutov; Homer
Ivan V. Reutov; Homer
Vasily E. Reutov; Homer
Nikit Reutov; Homer
Trifyi Reutov; Homer
Foma V. Reutov; Homer
Lisa Reutov; Homer
Pelagia Reutov; Homer
Frederick Reynolds; Pilot Point
Chris Richards; Unalaska
Michelle Ridgway; Juneau
Penny Ripple; Petersburg
Martin Robards; Anchorage
Bill Rome; Eagle River
Ken Roosa; Anchorage
Stephen Rosa; Dutch Harbor
Bill Rotecki; Ketchikan
Margaret Runser; Palmer
James Russell; Yakutat
Stuart Schaaf; Unalaska
Robert Schell; Sitka
Alex Schell; Sitka
Laura Schmidt, Sitka
Steve Schoonmaker; Kasilof
Dave Schuckman; Kodiak
Richard Schultz; Greg
Brian Scully; Unalaska
Paul Seaton; Homer
Scott Seaton; Fairbanks
Jeanne See; Homer
Sergey Seebrekoff; Homer
Paul Shadura II; Kenai
Edward Shaishnikoff; Unalaska
Ernest Shaishnikoff; Unalaska
Larry Shaishnikoff; Unalaska
Bob Shavelson; Homer
Richard Sheard; Anchorage
Tim Shen; Seward
Kenneth Simpson; Anchorage
Chris Skelly; Unalaska
Thor Skulstad; Anchorage
George Smallwood; Homer
Trina Smallwood; Homer
Jim Smith; Sand Point
Edgar Smith; Anchorage
Roy Smith; Juneau
Kristen Smith; Cordova
Walter Soreen; Seldova
David Sperbeck; Anchorage
James Sprague; Craig
John Spurr; Gustavus
Gary Squires; Homer
David Stanton; Dutch Harbor
Jacob Stepetin; Unalaska
Annette Stepetin; Unalaska
Robin Stevens; Kodiak
Jim Stewart; Unalaska
Chris Stoehn; Anchorage
Bobby Storrs; Unalaska
Greg Streveler; Gustavus
Stacy Studebaker; Kodiak
Dora Suetterd; Unalaska
Brenda Tellman; Unalaska
William Tenner, Homer
Paula Terry; Juneau
William Terry; Sitka
Leigh Thomet; Kodiak
Kip Thomet; Kodiak
Tom Thurman; Homer
Jules Tileston; Anchorage
Peg Tileston; Anchorage
Henry Timm; Tok
Mary Timm; Tok
Peter Togiak; Togiak
Jim Tolson; Dutch Harbor
Floyd Tomkins; Sitka
Lawrence Trane; Sitka
Ray Tremblay; Anchorage
Herta Tschersich; Kodiak
Hans Tschersich; Kodiak
Richard Tyler; Homer
Ivan Unalkoff; Anchor Point
Michael Van Note; Haines
Rion Vanek; Nenichik
Dan Veerhusen; Homer
Karlee Veltre; Anchorage
Chuck Venit; Dutch Harbor
Ernest Wahl; Dutch Harbor
Tracy Walczak-Lohman; Anchorage
Jeremy Weber; Homer
Elizabeth West; Kasilof
Bert Wheeler; Anchorage
David Whitmer; Homer
Jon Whitmore; Anchorage
Chris Whittington-Evans; Palmer
Charles Wilber; Sitka
James Wild; Elfin Cove
Philip Willey; Sitka
Sandra Willhite; Unalaska
Rex Willhite; Unalaska
Robert Williams; Kasilof
Joshua Williams; Dutch Harbor
Deborah Williams; Anchorage
Wendy Moe Willis; Anchorage
Greg Wilson; Anchorage
Annie Wilson; Igiugig
Elizabeth Wilson; Haines
Ike Wirz; Kodiak
Jill Wittenkraber; Anchorage
Tom Wood; Anchorage
Bob Wood; Eagle River
Abi Woodbridge; Unalaska
Tracey Wooden; Unalaska
Ken Woodman; Homer
Philip Wyman; Sitka
Marvin Yagie; Pennville
Jeff Yates; Anchorage
Jeffrey Yeoman; Homer
Dennis Young; Dutch Harbor
Michael Yourkowski; Homer
Monica Zacharof; Elim
Ken Zafiris; Anchorage
Brett Zelloff II; Unalaska
Doug Sackett; Dutch Harbor
Anton Sanarov; Homer
Gerald Sanger; Whittier
Linda Sargent; Kodiak
Walter Sargent; Kodiak
Kathryn Swiderski; Anchorage
Lon Sword; Unalaska
Faustina Tejada; Dutch Harbor
Walter Tellman; Unalaska
Johanna Tellman; Unalaska

Choose Your Future

- **If you care about the future of Alaska's coastal communities**
- **If you want to make sure independent Alaskan fishermen keep fishing**
- **If you want to protect independent fishermen and the fishery management system from control by large corporations...**

Call or write to Gov. Knowles and our congressional delegation today. Urge them to ensure that future limited access fisheries meet conservation and community standards to 1) reward good stewardship, 2) protect opportunities for independent fishing families, and 3) preserve healthy competition among seafood processors. Processors and fishermen are both part of Alaska's seafood industry. But limiting who can buy fish by allocating processing quota will have controlling effects on markets, fishing families and the public process. There are other ways to generate economic benefits for the processing sector. Let's look at alternatives that are good for all Alaskans!

[illegible]ov. Tony Knowles	**Sen. Stevens**	**Sen. Murkowski**	**Congressman Don Young**
[illegible]7) 465-3500	(202) 224-3004	(202) 224-6665	(202) 225-5765
[illegible]465-3532	Fax (202) 224-2354	Fax (202) 224-5301	Fax (202) 225-0425

Alaska Marine Conservation Council

ALASKA MARINE CONSERVATION COUNCIL
P.O. Box 101145 • Anchorage, AK 99510 • (907) 277-5357
www.akmarine.org
AMCC works to minimize bycatch, protect marine habitat, prevent overfishing, and promote clean, community-based fishing opportunities.

Alaska Marine Conservation Council

500 Alaskans for Conservation and Communities in the Development of Future Individual Fishing Quota Programs

I join my fellow Alaskans in calling on Congress, the State of Alaska and fishery managers to require strong standards for conservation and community stability within any new individual quota or other limited access program.

I oppose the award of processing quota and government limitation of the number of processors because of the controlling effect on markets, fishermen, communities, and the public process.

Congress, the State, and fishery managers must ensure that conservation goals are met and that independent fishermen and coastal communities receive equitable treatment.

Fishery management programs that limit access to the public's resource must:

- Reward clean fishing (promote low bycatch and minimize impact on ocean habitat)
- Create opportunity for future generations of independent fishermen
- Prevent excessive consolidation and vertical integration of the seafood industry
- Preserve healthy competition among seafood processors and prohibit processor monopolies
- Promote healthy community fishing economies and maintain diverse independent fishing fleets
- Recognize historic regional fishing and processing patterns
- Require good stewardship of the public's marine resources as a condition for continuing participation in IFQ fisheries

(Petitions will be presented to Congress, Gov. Knowles & North Pacific Fishery Management Council)

KODIAK DAILY MIRROR
March 19, 2002

AMCC opposes processor quotas

By DEANNA COOPER
Mirror Writer

The Alaska Marine Conservation Council (AMCC) is calling on Alaska's leaders to advance fisheries conservation and protect the livelihoods of independent fishermen, in efforts now under way to privatize access to Alaska's federally managed fisheries.

According to their March 12 press release, the North Pacific Fishery Management Council is searching for management innovations to slow down the pace of fishing, improve fishing practices, and maintain a healthy processing sector. Individual fishing quota programs, or IFQs, are high on the fishery managers' list of options for ending the race for fish.

One potential element of pending privatization plans is a proposal to compensate processors for their investments by awarding them with exclusive privileges in perpetuity to buy and process Alaska's fishery resources.

AMCC opposes this option.

Their call comes in the form of open letters to Gov. Knowles, the Alaska congressional delegation, and the North Pacific Fishery Management Council. The letters, which ran as ads in state newspapers on March 13, display the names of 500 Alaskans from coastal towns across the state in support of these goals.

"We are asking our leaders to consider the 500 Alaskans who are speaking with one voice from communities directly affected by decisions about Alaska's fisheries," said Dorothy Childers, AMCC executive director. "Most are people who are not flying to meetings and making regular trips to Juneau and Washington, D.C. They are diverse constituents whose views are not regularly heard by decision makers."

Awarding processing quota limits where independent fishermen may sell their catch. Alaskans are concerned that processing corporations will control markets, independent fishermen, communities, and ultimately the public process.

"Some Alaskans say they are concerned about vertical integration of the seafood industry in which processing companies would own the vessels, plants and markets while fishermen work for a wage," said Childers.

"Alaska's experience with this system was when canneries controlled the entire salmon industry. The need to overturn this "feudal system" was a driving force behind statehood in 1959," she said.

"IFQs, if designed right, can be tools for conservation management. But awarding processing quota is a dangerous idea that will take our fisheries down a path to control by corporations and a death spiral for independent fishing families," said Bob Storrs, Unalaska fisherman. "It might not happen right away — but it will happen — and our children will pay the price."

"AMCC recognizes that resolving problems faced by the processing sector could improve the overall business environment," Childers said. "We are asking State and federal agencies to sit down together, identify the needs, and craft appropriate solutions using all the tools available. It's not the government's job to limit who can buy Alaska's fish. It is the government's job to find ways to support the industry. We need Gov. Knowles to gather an array of people to explore options that are good for all Alaskans."

April 12, 2002

The Honorable Tony Knowles
Box 110001
Juneau, Alaska 99811-0001

Dear Governor Knowles,

As small independent processors and buyers of Alaska fishery resources we are concerned regarding imminent decisions to rationalize Alaska's federally managed fisheries. In April, the North Pacific Fishery Management Council is scheduled to vote on a plan to limit access to Bering Sea crab fisheries. The Council will also decide whether or not to award processor quota, or the "two-pie" system, to companies currently involved in crab processing. After crab rationalization is decided, fishery managers will consider plans for groundfish fisheries.

As processors and buyers of Alaska fishery resources we oppose the "two-pie" system because of the impact this control would have on our ability to supply a diversity of product to our markets. **We do not support a system that locks each fisherman to specific processors forever.** The last time this happened was during Alaska territory days when a limited number of canneries controlled the salmon, the fishermen and the markets.

Please support us in our effort to preserve the competitive business environment that is central to a healthy economy. Alaskans and the State accrue tremendous benefits from our valuable fishery resources in the form of revenue and jobs. We need a healthy processing and harvesting sector for the seafood industry and fishing families to thrive in coastal Alaska. We believe there are alternative ways to support the processing sector in a manner that solves specific problems without limiting the companies to whom an independent fisherman can sell his catch.

Thank you for considering our concerns. We appreciate your help in guiding the State of Alaska through this important decision.

Sincerely,

Mike McCune
The Fish Factory
Homer

Kevin Hogan
The Auction Block
Homer & Seward

Dana F. Besecker
Fish Buyer
Homer & Seward

Jeff Berger
Deep Creek Packing
Ninilchik, Soldotna & Homer

Brad Faulkner
Alaska Custom Seafoods, Inc
Homer

Ken Quinn
Kachemak Fish Packers
Homer

Glen Carroll
Carroll Corp.
Homer

Mike Brooks
Brooks Alaska Seafoods
Homer

John Whiddon
Island Seafoods
Kodiak

Bob Scott
Salamatof Seafood's
Kenai

Skip Winfree
Tenth and M Seafoods
Anchorage

COMMUNITY RESOLUTIONS
SUPPORTING CONSERVATION AND COMMUNITIES
IN RATIONALIZATION PROGRAMS
AND OPPOSING PROCESSOR QUOTA SHARES

APRIL 2002

RESOLUTION 02-16

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SELDOVIA, ALASKA, SUPPORTING LOCAL INDEPENDENT FISHING FAMILIES AND COMMUNITIES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS' "THE TWO PIE SYSTEM" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS

WHEREAS, the City of Seldovia, hereinafter City, believes that the allocation of fishery resources to processors *"the two pie system"* will threaten the social and economic balance between independent fishermen and processors; and

WHEREAS, the City believes that any fishery resources allocation program that requires exemptions to the anti-trust laws is bad for independent fishing family's, coastal communities, seafood consumers; and

WHEREAS, the City recognizes the National Research Council's recommendations concerning processor allocations contained in the 1999 report to Congress entitled, *"Sharing The Fish: Toward a National Policy On IFQs, 'p 205 Recommendation: ...' Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the two pie system)"*; and

WHEREAS, the City believes that the allocation of Alaska fishery resources should include eligibility for coastal communities, independent fishermen, hired skippers, operators, and crewmembers that live adjacent to the resource; and

WHEREAS, the City believes that strong conservation goals with measurable reductions in by-catch and fisheries waste be an integral part of any rationalization program; and

WHEREAS, the City supports the inclusion of an independent review process of new rationalization program's and a viable mechanism to adjust the system if the intent and/or goals of an implemented program are not being achieved; and

WHEREAS, the City believes that all Alaska coastal communities have the right to participate in the public process concerning all Alaska fishery resources issues;

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Seldovia, strongly urges the North Pacific Fishery Management Council, State of Alaska, and the United States Congress to support the conservation principles contained within this resolution and support local, independent fishing family's, and coastal communities by opposing the allocation of Alaska fishery resources to processors "two pie system" or any other fishery resources allocation program that creates a closed class of processor.

PASSED AND APPROVED by a duly constituted quorum of the City Council of the City of Seldovia, Alaska, on this 23 day of January, 2002.

APPROVED: Susan H. Hecks
Susan H. Hecks, Mayor

ATTEST:

Sara M. Nichols
Sara M. Nichols, Clerk

CHIGNIK SEINERS ASSOCIATION

RESOLUTION 0303

A RESOLUTION OF THE CHIGNIK SEINERS ASSOCIATION SUPPORTING LOCAL INDEPENDENT FISHING FAMILIES AND COMMINUTES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS " *THE TWO PIE SYSTEM*" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS

WHEREAS The Chignik Seiners Association believes that the allocation of fishery resources to processors *"the two pie system"* will threaten the social and economic balance between independent fishermen and processors and,

WHEREAS The Chignik Seiners Association believes that any fishery resources allocation program that requires exemptions to the anti trust laws is bad for independent fishing family's, coastal community's, seafood consumers and,

WHEREAS The Chignik Seiners Association recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled " *Sharing The Fish: Toward a National Policy On IFQs* " p 205 **Recommendation: ...**" *Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the " two-pie" system)" and,*

WHEREAS; The Chignik Seiners Association believes that the allocation of Alaska fishery resources should include eligibility for coastal communities, independent fisherman, hired skippers, operators, and crewmembers that live adjacent to the resource and.

WHEREAS The Chignik Seiners Association believes that strong conservation goals with measurable reductions in by-catch and fisheries waste be integral part of any rationalization program and.

WHEREAS The Chignik Seiners Association supports the inclusion of a independent review process of new rationalization program's and a viable mechanism to adjust the system if the intent and or goals of a implemented program are not being achieved and,

WHEREAS The Chignik Seiners Association believes that all Alaska coastal comminutes have the right to participate in the public process concerning all Alaska fishery resources issues,

NOW THERE FOR BE IT RESOLVED THAT The Chignik Seiners Association strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to support the conservation principles contained within this resolution and support local independent fishing family's, and coastal comminutes by opposing the allocation of Alaska fishery resources to processors " *the two pie system*" or any other fishery resources allocation program that creates a closed class of processor

Passed by the Board of Directors of Chignik Seiners Association this day of March 14, 2002

Charles F McCallum

Charles McCallum, Executive Director of Chignik Seiners Association

North Pacific Fisheries Association, Inc.

HEADQUARTERS:
BOX 796 • HOMER, ALASKA 99603

A RESOLUTION OF THE NORTH PACIFIC FISHERIES ASSOCIATION (NPFA) OF HOMER, ALASKA, URGING THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, THE UNITED STATES CONGRESS AND THE STATE OF ALASKA TO REQUIRE STRONG STANDARDS FOR CONVERSATION AND COMMUNITY HEALTH BEFORE ANY NEW INDIVIDUAL QUOTA OR OTHER LIMITED ACCESS PROGRAMS ARE ADOPTED IN OUR FISHERIES RESOURCES IN ALASKA.

1. WHEREAS: The North Pacific Fisheries Assn. believes that strong conservation goals should be integrated into any new rationalization program and,

2. WHEREAS: The North Pacific Fisheries Assn. believes that a mechanism must be incorporated in a rationalization program so if the conservation goals are not met there is a means to change the program to meet the goals and,

3. WHEREAS: The North Pacific Fisheries Assn. believes that an independent review process needs to be incorporated into any new rationalization program and,

4. WHEREAS: The North Pacific Fisheries Assn. believes that any privatization program should include rewards to fisherman who convert to gear types that have low bycatch rates and minimal impact to the sea floor habitat and,

5. WHEREAS: The North Pacific Fisheries Assn. believes that any rationalization plan include measurable reductions in by-catch and fisheries waste and;

6. WHEREAS: The North Pacific Fisheries Assn. believes that good stewardship of the public's marine resources is a condition for continued participation in IFQ programs or other limited access programs and.

7. WHEREAS: The North Pacific Fisheries Assn. believes that any rationalization plan include viable entry-level opportunities to coastal community residents be incorporated and;

8. WHEREAS: The North Pacific Fisheries Assn. believes that the allocation of fishery resources be to independent fisherman, including hired skippers, operators, and crewmembers based on historic participation and.

9. WHEREAS: The North Pacific Fisheries Assn. believes that any new rationalization program should promote healthy community fishing economics and maintain diverse independent fishing fleets and.

10. WHEREAS: The North Pacific Fisheries Assn. recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to Congress entitled "Sharing The Fish: Toward a National Policy on IFQ's" p.205 **Recommendation:** ..."*Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the "two-pie" system)*." and,

11. WHEREAS: The North Pacific Fisheries Assn. believes that the allocation of fishery resources to processors will threaten the competitive balance between independent fishermen and processors and,

12. WHEREAS: The North Pacific Fisheries Assn. believes that any privatization programs created should not require an exemption to federal anti-trust laws and.

13.WHEREAS: The North Pacific Fisheries Assn. believes that any rationalization plan include eligibility for coastal communities and.

14. WHEREAS: The North Pacific Fisheries Assn. believes any rationalization plan maintain a high level of participation in fisheries by active fisherman and.

15. WHEREAS: The North Pacific Fisheries Assn. believes that any rationalization plan include mechanisms to promote and maintain a high level of professionalism and.

16. WHEREAS: The North Pacific Fisheries Assn. supports a funding mechanism to adequately support management and enforcement requirements of these fisheries.

NOW THEREFORE BE IT RESOLVED; that the North Pacific Fisheries Association of Homer, Alaska strongly urges the North Pacific Fishery Management Council, State of Alaska, and the United States Congress to develop the above elements into standards for any rationalization plan to ensure that conservation and community stability are met when establishing new individual quota or other limited access programs for our fishery resources in Alaska.

Signed This Day November 29, 2001

Donald R. Lane, president
North Pacific Fisheries Assn.
Homer, Alaska

A RESOLUTION OF
THE ALASKA LONGLINE FISHERMENS ASSN.
URGING THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, THE STATE OF ALASKA AND THE UNITED STATES CONGRESS,

TO REQUIRE STRONG STANDARDS FOR CONSERVATION AND COMMUNITY HEALTH BEFORE ANY NEW INDIVIDUAL QUOTA PROGRAM OR OTHER LIMITEDACCESS PROGRAMS ARE ADOPTED FOR OUR FISHERIES RESOURCES IN ALASKA.

WHEREAS; The Alaska Longline Fishermen's Assn. believes that strong conservation goals should be integrated into any new rationalization program and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that a mechanism must be incorporated so if the conservation goals are not met there is a means to change the program to meet the goals and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that an independent review process needs to be incorporated into any new rationalization program and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that any privatization program should include opportunities for fisherman to convert to gear types which have low by-catch rates and minimal impact to the sea floor habitat and;

WHEREAS; The Alaska Longline Fishermen's Assn. believes that any rationalization plan should include measurable reductions in by-catch and fisheries waste and;

WHEREAS; The Alaska Longline Fishermen's Assn. believes that good stewardship of the public's marine resources should be a condition for continuing participation in IFQ's programs or other limiting access programs and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes valid entry level opportunities for future generations of independent fisherman must be included in any rationalization program and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that the allocation of fishery resources must include independent fisherman such as hired skippers, operators, and crewmembers based on historic participation and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that any new rationalization program must promote healthy community fishing economics and maintain diverse independent fishing fleets.

WHEREAS; The Alaska Longline Fishermen's Assn. recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled " Sharing The Fish: Toward a National Policy On IFQs " p 205 Recommendation: ..." Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the " two-pie" system)". and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that the allocation of fishery resources to processors will threaten the competitive balance between independent fishermen and processors and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that any privatization programs created should not create an exemption to federal anti-trust laws and,

WHEREAS; The Alaska Longline Fishermen's Assn. believes that any rationalization plan include eligibility for coastal communities and;

WHEREAS: The Alaska Longline Fishermen's Assn. believes any rationalization plan maintain a high level of participation in fisheries by active fisherman and;

WHEREAS: The Alaska Longline Fishermen's Assn. believes that any rationalization plan include mechanisms to promote and maintain a high level of professionalism and,

WHEREAS; The Alaska Longline Fishermen's Assn. supports a funding mechanism to adequately support management and enforcement requirements of these fisheries

NOW THERE FOR BE IT RESOLVED; that the Alaska Longline Fishermen's Assn. strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to developed the above elements into standards for any rationalization plan, to ensure that conservation and community stability are met when establishing any new individual quota, CO-OP or other limited access programs in our fisheries resources in Alaska.

Signed This Day November 30, 2001

Steve Fish, Board Member

A RESOLUTION OF THE UNALASKA NATIVE FISHERMAN'S ASSN. URGING THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, THE STATE OF ALASKA AND THE UNITED STATES CONGRESS, TO REQUIRE STRONG STANDARDS FOR CONSERVATION AND COMMUNITY HEALTH BEFORE ANY NEW INDIVIDUAL QUOTA PROGRAM OR OTHER LIMITED ACCESS PROGRAMS ARE ADOPTED IN OUR FISHERIES RESOURCES IN ALASKA.

WHEREAS; The Unalaska Native Fisherman's Assn. believes that strong conservation goals should be integrated into any new rationalization program; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that a mechanism must be incorporated so if the conservation goals are not met there is a means to change the program to meet the goals; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that an independent review process needs to be incorporated into any new rationalization program; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any privatization program should include rewards to fisherman who convert to gear types that have low by-catch rates and mammal impact to the sea floor habitat; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any rationalization plan should include measurable reductions in by-catch and fisheries waste; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that good stewardship of the public s marine resources as a condition for continuing participation in IFQ's programs or other limiting access programs; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes valid entry-level opportunities for future generations of independent fisherman be included in any rationalization program; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that the allocation of Alaska fishery resources should include independent fisherman including hired skippers, operators, and crewmembers based on historic participation; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any new rationalization program should promote healthy community fishing economics and maintain diverse independent fishing fleets; and

WHEREAS; The Unalaska Native Fisherman's Assn. recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled "*Sharing The Fish: Toward a National Policy On IFQs*" p 105 Recommendation: ..." *Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the "two-pie" system)*"; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that the allocation of fishery resources to processors will threaten the competitive balance between independent fishermen and processors; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any privatization programs created should not require an exemption to federal anti-trust laws and,

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any rationalization plan include eligibility for coastal communities; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes any rationalization plan maintain a high level of participation in fisheries by active fisherman; and

WHEREAS; The Unalaska Native Fisherman's Assn. believes that any rationalization plan include mechanisms to promote and maintain a high level of professionalism; and

WHEREAS; The Unalaska Native Fisherman's Assn. supports a funding mechanism to adequately support management and enforcement requirements of these fisheries.

NOW THERE FOR BE IT RESOLVED, that The Unalaska Native Fisherman's Assn. strongly urges the North Pacific Fishery management Council, State of Alaska and the United States Congress to developed the above elements into standards for any rationalization plan, to ensure that conservation and community stability are met when establishing any new individual quota or other limited access programs in our fisheries resources in Alaska.

PASSED AND ADOPTED by the Unalaska Native Fisherman's Assn. this 27th day of January, 2002

Unalaska Native Fisherman's Assn.

Emil Berikoff, President

Bobby Storrs, Vice President

RESOLUTION 02-1/25

A RESOLUTION OF THE VILLAGE COUNCIL OF CHIGNIK LAGOON ALASKA SUPPORTING LOCAL INDEPENDENT FISHING FAMILIES AND COMMINUTES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS " *THE TWO PIE SYSTEM*" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS

WHEREAS The Chignik Lagoon Village Council believes that the allocation of fishery resources to processors "*the two pie system*" will threaten the social and economic balance between independent fishermen and processors and,

WHEREAS The Chignik Lagoon Village Council believes that any fishery resources allocation program that requires exemptions to the anti trust laws is bad for independent fishing family's, coastal community's, seafood consumers and,

WHEREAS The Chignik Lagoon Village Council recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled " *Sharing The Fish: Toward a National Policy On IFQs* " p 205 **Recommendation: ...**" *Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the " two-pie" system)" and,*

WHEREAS: The Chignik Lagoon Village Council believes that the allocation of Alaska fishery resources should include eligibility for coastal comminutes, independent fisherman, hired skippers, operators, and crewmembers that live adjacent to the resource and,

WHEREAS The Chignik Lagoon Village Council believes that strong conservation goals with measurable reductions in by-catch and fisheries waste be integral part of any rationalization program and,

WHEREAS The Chignik Lagoon Village Council supports the inclusion of a independent review process of new rationalization program's and a viable mechanism to adjust the system if the intent and or goals of a implemented program are not being achieved and,

WHEREAS The Chignik Lagoon Village Council believes that all Alaska coastal comminutes have the right to participate in the public process concerning all Alaska fishery resources issues,

NOW THERE FOR BE IT RESOLVED THAT The Chignik Lagoon Village Council strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to support the conservation principles contained within this resolution and support local independent fishing family's, and coastal comminutes by opposing the allocation of Alaska fishery resources to processors " *the two pie system*" or any other fishery resources allocation program that creates a closed class of processor

Certification

It is hereby certified that on the 25 day of [illegible], 2002, a quorum of the Chignik Lagoon Village Council was formed, did pass and adopt the preceding resolution by

5 affirmative and 0 negative votes.

ATTESTED BY:

[illegible] 12-5-02
Chairman / date

[illegible] 12-5-02
Council Secretary / date

CITY OF HOMER
HOMER, ALASKA

Mayor Cushing
Yourkowski
Kranich
Ladd

RESOLUTION 02-06(S)

A RESOLUTION OF THE CITY COUNCIL OF HOMER, ALASKA SUPPORTING LOCAL INDEPENDENT FISHING FAMILIES AND COMMUNITIES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS "THE TWO PIE SYSTEM" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS.

WHEREAS, Decisions made by State and Federal Elected Officials and Resource Management regarding this issue will have some of the largest effects on this regions' economy for many years to come; and

WHEREAS, Commercial Fishing has been a major basis of the Homer area economy for the last 80 years: and

WHEREAS, This area's commercial fishing economy has survived major setbacks including fish stock changes and the fire loss and closing of the area's major processor, but the area has still managed to be the Nation's highest port in halibut landings, the last three years, as well as a significant port for other species; and

WHEREAS, This vitality is attributed to the resourcefulness and energy of area's independent commercial fisherman and the City of Homer's port structure that enhances these independent commercial fishing entities; and

WHEREAS, Any decisions made in these fisheries resources that allocates to processors is contrary to 80 successful years of an area and would have monumental effects on the area's economy: and

WHEREAS, This area's commercial fishing economy is similar to many other cities and areas of Alaska; and

WHEREAS, It is imperative to make decisions that don't contribute to the current threat of recession; and

WHEREAS, The City of Homer believes that the allocation of fishery resources to processors "the two pie system" will threaten the social and economic balance between independent fishermen and processors; and

WHEREAS, The City of Homer believes that any fishery resources allocation program that requires exemptions to the anti trust laws is bad for independent fishing families, coastal communities, and seafood consumers; and

WHEREAS, The City of Homer recognizes the National Research Council's recommendations concerning processor allocations contained in the 1999 report to congress entitled, "Sharing the Fish: Toward a National Policy On IFQs", p 205 "Recommendation:..." Nor did the committee find a compelling reason to establish a separate, complementary processor quote system (the "two-pie" system); and

WHEREAS. The City of Homer believes that the allocation of Alaska fishery resources should include eligibility for coastal communities. independent fishermen. hired skippers. operators and crewmembers that live adjacent to the resource; and

WHEREAS. The City of Homer believes that strong conservation goals and measurable reductions in by-catch and fisheries waste be an integral part of any rationalization program; and

WHEREAS. The City of Homer supports the inclusion of an independent review process of new rationalization programs and a viable mechanism to adjust the system if the intent and/or goals of an implementation program are not being achieved; and

WHEREAS. The City of Homer believes that all Alaskan coastal communities have the right to participate in the public process concerning all Alaskan fishery resources issues.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of Homer strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to support the conservation principles contained within this Resolution and support local independent fishing families and coastal communities by opposing the allocation of Alaskan fishery resources to processors "the two-pie system" or any other fishery resources allocation program that creates a closed class of processor.

PASSED AND ADOPTED by the Homer City Council this 28th day of January, 2002.

CITY OF HOMER

JACK CUSHING, MAYOR

ATTEST:

MARY E. CALHOUN, CMC. CITY CLERK.

Fiscal Note: NA

UNGA TRIBAL COUNCIL
P.O. Box 508
Sand Point, Alaska 99661

(907) 383-5215 / 5553 Facsimile
unga@aitc.org

RESOLUTION 02-09

A RESOLUTION OF THE UNGA TRIBAL COUNCIL (NATIVE VILLAGE OF UNGA) SUPPORTING LOCAL INDEPENDEDNT FISHING FAMILIES AND COMMUNITIES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS "THE TWO PIE SYSTEM" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS

WHEREAS, the Unga Tribal Council believes that the allocation of fishery resources to processors "the two pie system" will threaten the social and economic balance between impendent fishermen and processors; and.

WHEREAS, the Unga Tribal Council believes that any fishery resources allocation program that requires exemptions to the anti trust laws is bad for independent fishing family's coastal community's seafood consumers; and,

WHEREAS, the Unga Tribal Council recognizes the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled "*Sharing The Fish: Toward a National Policy On IFQs*" p. 205 Recommendation:" *Nor did the committee find a compelling reason to establish a separate, complementary processor quota system (the "two-pie" system)"; and,*

WHEREAS, the Unga Tribal Council believes that the allocation of Alaska fishery resources should include eligibility for coastal communities, independent fisherman, hired skippers, operators, and crewmembers that live adjacent to the resource; and,

WHEREAS, the Unga Tribal Council believes that strong conservation goals with measurable reductions in by catch and fisheries waste be integral part of any rationalization program: and,

WHEREAS, the Unga Tribal Council supports the inclusion of an independent review process of new rationalization program's and a viable mechanism to adjust the system if the intent and or goals of an implemented program are not being achieved; and,

WHEREAS, the Unga Tribal Council believes that all Alaska coastal communities have the right to participate in the public process concerning all Alaska fishery resources issues:

NOW THEREFORE BE IT RESOLVED THAT the Unga Tribal Council strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to support the conservation principles contained within this resolution and support local independent fishing family's, and coastal communities by opposing the allocation of Alaska fishery resources to processors "*the two pie system*" or any other fishery resources allocation program that creates a closed class of processor.

Passed this 5th day of February 2002.

President

ATTEST:

Secretary

CITY of CHIGNIK
P.O. Box 110 Chignik, AK 99564
Ph (907) 749-2290 Fax (907) 749-2300

RESOLUTION 02-05

A RESOLUTION SUPPORTING LOCAL INDEPENDENT FISHING FAMILIES AND COMMUNITIES BY OPPOSING THE ALLOCATION OF ALASKA FISHERY RESOURCES TO PROCESSORS "THE TWO PIE SYSTEM" OR OTHER FISHERY RESOURCE ALLOCATION PROGRAMS THAT CREATE A CLOSED CLASS OF PROCESSORS

Whereas, The City of Chignik believes that the allocation of fishery resources to processors "the two pie system" will threaten the social and economic balance between independent fishermen and processors and,

Whereas, We believe that and any fishery resources allocations program that requires exemptions to the and trust laws is bad for independent fishing family's coastal community's seafood consumers and,

Whereas, We recognize the National Research Councils recommendations concerning processor allocations contained in the 1999 report to congress entitled "Sharing The Fish: Toward a National Policy On IFQs" p 215 Recommendations:..." Nor did the commitee find a compelling reason to establish a separate, complemeatary processor quota systems (the "two pie " System) and,

Whereas, We believe that the allocation of Alaska fishery resources should include eligibility for coastal comminutes, independent fishermen, hired skippers, operators, and crew members that live adjacent to the resource and,

Whereas, We believe that strong conservation goals with measurable reductions in by-catch and fisheries waste be integral part of any rationalization program and,

Whereas, We support the inclusion of a independent review process of new rationalization program's and a viable mechanism to adjust the system if the intent and or goals of implemented program are not being achieved and,

Whereas, We believe that all Alaska coastal comminutes have the right to participate in the public process concerning all Alaska fishery resources issues.

NOW, THEREFORE, BE IT RESOLVED, that the council of The City of Chignik strongly urges the North Pacific Fishery Management Council, State of Alaska and the United States Congress to support the conservation principles contained within this resolution and support local independent fishing family's and coastal communities by opposing the allocations of Alaska Fishery resources to processors" the two pie system" or any other fishery resources allocation program that create a closed class of processor

Passed and approved by a quorum of the Council of the City of Chignik this 29th day of January , 2002.

Mayor:

James Brewer

ATTEST:

Richard J. Sharpe
City Clerk

C-5
Pat Carlson

Items for Consideration BSAI Crab Rationalization
Meeting of April 12, 2002
North Pacific Fisheries Management Council
by
Patrick Carlson, Manager
Kodiak Island Borough

Dear Chairman and Council Members:

Please consider the following proposals in your deliberations regarding the Bering Sea Crab Rationalization proposal. I would preface the following by clearly stating the Kodiak Island Borough Mayor and Assembly take no position for or against rationalization, as clarified by our previously submitted resolution, but present these items in the event a rationalization plan is approved. Our intent is to support our fishing based economy with a goal of common prosperity and a healthy community.

Coming from Kodiak, which is homeport to the biggest portion of the Alaskan Bering Sea crab fleet, and the 2nd largest processing sector in the state, we support other Alaskan communities who are just beginning to find their place in the fishing industry and are struggling to provide needed improvements.

However, we are faced with tremendous challenges locally. Our historic $125,000 salmon permits are going begging at $15,000, and nearly half our Salmon Seine fleet didn't fish last year. We are down to 1 salmon cannery from 4 just a few years ago and have lost 1 multi-specie processors in the last year and another is in the process of shutting down.

Stellar Sea Lion closures have moved the bottom fish fleet into dangerous and unproductive waters that is now threatened with restrictions from Essential Fish Habitat proposals. Both the fleet and processing facilities are aging and struggling just to be maintained, let alone upgraded. Layoffs are increasing and economic productivity is down sharply, so it is imperative that we hang on to as much of our market share as we can to support the over 1 billion dollars invested in our community.

We recognize that Bering Sea Crab is an overcapitalized fishery and the pain of decapitalization will take place with or without further actions. Hopefully through your good counsel and guidance, we can look forward to a softer landing than the total collapse of crab that Kodiak suffered through in the early 80's.

In light of these comments, please consider the following:

Section 2.3 Option 2. Initial allocation of processing quota shares

Should you utilize the 2-pie option we wish to emphasize the need to ensure recency in the form of calendar year 2000 for the processor sector, as to do otherwise would unfairly penalize Kodiak. A review of the history of landings for Kodiak will demonstrate that the proposed time frames for processor quota are the absolute worst for

Kodiak and in the interest of fairness, our long history with crab and the Federal Rule for recency and history, we would request you approval of the best 4 years from 1996-2000.

Section 3.2 Regional categorization

In order to be consistent, we would request the most recent years in Options 1 & 2 be changed from 1999 to 2000. We believe the sub option 3 of no designation to a region when the percentage is 0-8% should clarify that this is based on all species and we believe a low threshold on the order of 3% is necessary due to distortions from other factors.

Section 3.4 Option 1. Alternative Regionalization/Community Protection

We strongly support Community Protection mechanisms as a key component of the plan and would like to further clarify the definition of "eligible communities" to read:

"Eligible communities" shall be defined as any community that is a fishery based economy where 10% or more of the work force is directly employed in the harvesting and processing sector and the average of the ex-vessel crab landings during 1996-2000 exceeded 3% of the total ex-vessel landings.

In order to minimize conflicts and to address the concerns over the negotiations for processor quota leaving a community presented in the Council Review Draft of 1/22/2002, we would also propose for consideration that in the event of impasse, the parties will submit to binding arbitration in the same form and process as provided for in the program for harvesters under Section 2.8.3. This option should be incorporated into the tasks for the working group proposed by the AP.

Section 3.4 Option 2. Alternative Regionalization/Community Protection

We are opposed to Section 3.4 Option 2 for a variety of reasons, especially the ability to move within a region without a cooperative exit plan with the community. This proposal fails to adequately protect the huge investment communities have in providing infrastructure and support for processors.