Initial Review Draft

REGULATORY IMPACT REVIEW

and

INITIAL REGULATORY FLEXIBILITY ANALYSIS

OF ALTERNATIVES CREATING EMERGENCY EXEMPTIONS FROM REGIONAL LANDING REQUIREMENTS

For a proposed Regulatory Amendment to
Implement Amendment __ to the Fishery Management Plan
for Bering Sea and Aleutian Islands King and Tanner Crabs

February 2009

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1 Introduction

In the spring of 2007, the North Pacific Fishery Management Council (the Council) established a committee to address certain concerns with the Bering Sea and Aleutian Islands crab rationalization program (the program). In the course the committee's meetings, members expressed concern that at times of extreme icing and other uncontrollable circumstances, the regional landing requirements applicable to Class A individual fishing quota (IFQ) could pose safety risks, loss of resource (such as excessive deadloss), or extreme economic hardships to participants in the crab fisheries. At its October 2008 meeting, after receiving a staff discussion paper, an advisory panel recommendation, and public testimony, the Council directed staff to prepare an analysis of alternatives to provide an emergency exemption from regional landing requirements. To avoid potential insurmountable administrative burdens the Council identified for analysis a system of civil contracts between harvesters, processors, and a regional representatives as the means of defining the exemption from the regional landing requirements.

This document contains a Regulatory Impact Review (Section 2) and an Initial Regulatory Flexibility Analysis (Section 3) of the alternative to exempt custom processing from the use cap of the processing platform. Section 4 contains a discussion of the Magnuson Stevens Act National Standards and a fishery impact statement.[1]

This document relies on information contained in the Bering Sea/Aleutian Islands Crab Fisheries Final Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis/ Social Impact Assessment (NMFS/NPFMC, 2004). Throughout this analysis, this document is referred to as the "Crab EIS".

2 Regulatory Impact Review

This chapter provides an economic analysis of the action, addressing the requirements of Presidential Executive Order 12866 (E.O. 12866), which requires a cost and benefit analysis of federal regulatory actions.

The requirements of E.O. 12866 (58 FR 51735; October 4, 1993) are summarized in the following statement from the order:

> In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

E.O. 12866 further requires that the Office of Management and Budget review proposed regulatory programs that are considered to be "significant". A "significant regulatory action" is one that is likely to:

[1] The proposed action is a minor change to a previously analyzed and approved action and the proposed change has no effect individually or cumulatively on the human environment (as defined in NAO 216-6). The only effects of the action are the potential economic redistributive and production efficiency effects arising from exempting certain landings from regional landing requirements. As such, it is categorically excluded from the need to prepare an Environmental Assessment.

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

2.1 Purpose and need statement

Participants in the fishery identified three potential problems that could be addressed through a provision allowing an exemption from regional landing requirements. All problems arise from the occurrence of an unanticipated event that prevents delivery of landings as required by regional landing requirements. Most prevalent have been assertions that ice conditions in and around the Pribilof Islands, where all North region processing takes place, have created a substantial risks to vessels and crews in the fishery. A second need for the exemption could arise if events prevent the delivery of landings in a region for an extended period of time which could lead to excessive deadloss of harvested crab. A third problem could arise if an unanticipated event or circumstance could prevent harvest of a portion of the TAC. Although economic costs should not be the sole motivator for an exemption, it is possible that in some circumstances, costs arising from an unanticipated event could make harvest of the TAC for landing in a specific region unreasonably costly. These costs might be unavoidable, despite all reasonable efforts of the IFQ and IPQ holders. A well-drafted purpose and need statement could identify unavoidable costs arising from an unanticipated circumstance that would make harvest of IFQ designated for landing in a region uneconomical as a reasonable motivation for an exemption provision.

The Council has adopted the following purpose and need statement for this action:

> *In developing the crab rationalization program, the Council included several measures to protect regional and community interests. Among those provisions, the Council developed regional designations on individual processing quota and a portion of the individual fishing quota that require the associated catch to be delivered and processed in the designated region. Periodically, including at times in the first three years of the program, harbors in the Northern Region as defined in the program, are closed by the advance of the Bering Sea ice pack. These ice conditions have disrupted the crab fishery, contributing to safety risks and preventing harvesters from entering harbors to deliver to shore-based and floating processors located in the region, as required by the regional share designations. In addition, other unforeseeable events, events such as an earthquake or tsunami, or man-made disaster, could prevent deliveries or limit the available processing capacity in a region necessary for compliance with the regional designations on Class A IFQ and IPQ. A well-defined exemption from regional landing and processing requirements of Class A IFQ and IPQ that includes requirements for those receiving the exemption to take efforts to avoid the need for and limit the extent of the exemption could mitigate safety risks and economic hardships that arise out of unforeseeable events that prevent compliance with those regional landing requirements. Such an exemption should also provide a mechanism for reasonable compensation to communities harmed by the granting of the exemption to ensure that the community benefits intended by the regional designations continue to be realized despite the exemption.*

2.2 Alternatives

The Council has adopted the following alternatives for analysis:

Alternative 1 – Status quo (no exemptions from regional landing requirements)

Alternative 2 – Contractually Defined Exemption

Method of defining the exemption and compensation:

The exemption shall be generally defined in regulation. To receive an exemption, however,

Option 1: an IFQ holder the holder of matched IPQ, and the entity holding (or formerly holding) the right of first refusal for the IPQ, or

Option 2: an IFQ holder the holder of matched IPQ, and an entity identified by the community benefiting from (or formerly benefiting from) the right of first refusal for the IPQ, or

Option 3: an IFQ holder the holder of matched IPQ, and a regional entity agreed to by the communities benefiting from rights of first refusal (or formerly benefiting from rights of first refusal) in the designated region of the IFQ and IPQ,

shall have entered a contract defining conditions under which an exemption will be granted and the terms of any compensation.

Administration of the exemption

The exemption shall be administered through submission of an affidavit by the holder of the IFQ for which the exemption is applied. An affidavit attesting to the satisfaction of requisite conditions for the exemption (as agreed in the contract) shall constitute conclusive evidence of qualification for the exemption.

Definition of the exemption

Qualifying circumstance: An unavoidable circumstance that prevents the delivery or processing of crab in a region as required by regionally designated IFQ and matched IPQ will qualify for the exemption from regional landing requirements. To qualify for the exemption a circumstance must: a) be uavoidable, b) be unique to the IFQ and/or IPQ holder, c) be unforeseen or reasonably unforeseeable, and d) have actually occurred.[2]

Option: Additional specificity of the exemption and its term will be included in any contract between the IFQ holder, the holder of matched IPQ and the entity representing region/community interests.

[2] These criteria are taken from the exemption to 'cooling off' provision landing requirements that applied on a community basis to some IPQ in the first two years of the program (see 50 CFR 680.42(b)(4)(ii)).

Mitigation requirements

Requirement to attempt to mitigate:

Option 1: To receive an exemption the IFQ holder and the holder of matched IPQ shall have exerted all reasonable efforts to avoid the need for the exemption, which may include attempting to arrange delivery to other processing facilities in the designated region unaffected by the unavoidable circumstance, attempting to arrange for the use of IFQ (and IPQ, if needed) not requiring delivery in the affected region, and delaying fishing.

Option 2: An IFQ holder will not be granted an exemption, if the IFQ holder holds any unused Class B IFQ, C share IFQ, or Class A IFQ that may be delivered outside of the affected region.

Compensation

Compensation shall be as agreed in the contract among the IFQ holder, the holder of matched IPQ, and the entity representing regional/community interests.

In addition, the Council has requested that the analysis discuss 1) the potential for requiring satisfaction of detailed legal definitions or standards to pose safety risks and 2) the potential for the use of contractual provisions (including compensation requirements) to prevent abuse of the exemption.

2.2.1 Alternatives considered but not advanced for analysis

The Council considered four types of alternatives that it elected not to advance for analysis. Generally, these alternatives were perceived by the Council as limiting the effectiveness of the alternatives in achieving their intended purpose.

First, the Council elected to eliminate alternatives that specifically define exemption criteria in regulation. Given that the claims for the exemption are likely to be based on unavoidable and unforeseeable events, the qualification of an event for the exemption, the scope of the exemption, and any subsequent compensatory action are likely to be case specific. A flexible structure able to accommodate this variability could be beneficial. Specifically defining events that qualify for an exemption is problematic because the nature of the exemption is to accommodate unforeseen events that prevent deliveries. Although the types of events that might qualify for the exemption (such as ice, natural disasters, and disabling of a processing facility) are reasonably identifiable, it is possible that some events might not be identifiable. As such, it is reasonable to generally define an exemption with a description of the type of events that would qualify for the exemption, allowing flexibility of contractual agreements among affected parties to further define the exemption adding specificity to its terms. To accommodate unanticipated events, the Council has elected to eliminate from analysis any alternatives that specifically define the exemption, instead relying on a more general definition of conditions qualifying for the exemption and its scope.

Second, the Council considered alternatives under which NOAA Fisheries would fully administer the exemption, determining whether conditions qualifying for the exemption are met. The Council elected not to advance these options for analysis, as it deemed the potential administration by NOAA Fisheries as costly and potentially preventing the exemption from fulfilling its purpose. Several issues would arise through NOAA Fisheries administration of the exemption. First, NOAA Fisheries administration of general standards that lack specific criteria is complicated. The need for an exemption applicable to unanticipated circumstances (which would include circumstances other than icing in the harbor) requires a flexible regulatory standard that may not delineate all criteria. While a less specific standard may accommodate a broader range of needs, it also may increase the scale of agency fact finding required for determining whether the exemption standard has been met. This increased scale of fact finding may not only increase administration costs, but may also delay decision making. The need for efficient and timely

administration of the exemption is a second challenge to an agency administered standard. Under conventional agency administration, an agency finding of qualification for the exemption would require that the agency make an evidentiary determination that the standard is met. These findings are not made lightly, requiring verification of conditions (which in the crab fisheries will likely be in remote locations with limited accessibility). Although a slight delay in processing an application for an exemption may be desirable (particularly if the exemption is based on ice conditions that may clear), administrative delays could also lead captains to wait to be informed of the decision on the exemption, which may expose their vessels and crews to additional risk and may contribute to costly deadloss to crab on board. In addition, any agency administered exemption will require provision for appeals by affected parties, which may be time consuming and limit the effectiveness of the exemption. The conflict between the need for expedited consideration of exemption applications and the need for a flexible standard for determining qualification for the exemption suggest that agency administration may limit the effectiveness of the exemption provision.

Third, the Council also elected not to advance for analysis alternatives that specifically define compensation, in the event that the exemption is used. Alternatives containing specific compensation requirements were deemed too prescriptive to effectively balance the competing interests of parties, which are likely to change with the circumstances surrounding the granting of an exemption. Alternatives that allow flexibility to parties to define compensation were believed to better equip the participants (including those representing regional interests) to balance the competing interests that arise when an exemption is granted.

Fourth, the Council chose not to advance alternatives that would redesignate IFQ and IPQ to compensate for landings redirected under the exemption. Under such an alternative, the IFQ holder could receive an allocation in the following year that are redesignated for the region in which the exemption was granted. Such a redesignation is likely infeasible. It may be unfair to a recipient of a QS transfer early in the season (but after IFQ issuance) who may have no involvement in the IFQ use in the season of the exemption to have IFQ redesignated. To offset the lost landings, the redesignation would need to be for an equivalent amount of IFQ in the following year. TAC changes would leave IFQ redesignations uncertain until only a few days prior to those allocations being made. With the variety of annual IFQ and IPQ allocations and the complexity of determining those allocations, share redesignations could further delay IFQ/IPQ issuance, which already poses challenges to participants attempting to match Class A IFQ and IPQ. In most cases, IFQ holders are cooperatives that are not QS holders. Changes in cooperative membership and transfers of QS from year to year may result in extremely complicated and costly tracking of QS to ensure that exemption offsetting IFQ are issued. Arranging compensating share redesignation will also be complicated for IPQ holders. If the IPQ holder receives the landings covered by the exemption, redesignation of IPQ may be appropriate. In some cases, however, other processors may receive the benefits of redirected landings under an exemption. Redesignation of IPQ in that case might be inappropriate. In addition, some IPQ holders may hold no PQS for the region where the exempted shares were landed making redesignation impossible. These inequities and complexities suggest that other means of compensation may more appropriate than share redesignation and led the Council to eliminate such alternatives from consideration.

2.3 Existing conditions

This section describes the relevant existing conditions in the crab fisheries. The section begins with a brief description of the management of the fisheries under the rationalization program, followed by descriptions of the harvesting and processing sectors in the fisheries.

2.3.1 Management of the fisheries

Nine Bering Sea and Aleutian Island crab fisheries are managed under the rationalization program. Harvesting quota shares (QS) were created in each program fishery. QS are a revocable privilege that allow the holder to harvest a specific percentage of the annual TAC in a program fishery. The annual allocations, which are expressed in pounds, are referred to as individual fishing quota (IFQ). The size of each annual IFQ allocation is based on the amount of QS held in relation to the QS pool in a program fishery—a person holding one percent of the QS pool receives IFQ to harvest one percent of the annual TAC in the fishery.

QS are designated as either catcher vessel QS or catcher processor QS, depending on whether the vessel that created the privilege to the shares processed the qualifying harvests on board. Approximately 97 percent of the QS (referred to as "owner QS") in each program fishery were initially allocated to license holders based on their catch histories in the fishery. The remaining 3 percent of the QS (referred to as "C shares" or "crew QS") were initially allocated to captains based on their catch histories in the fishery.

Catcher vessel owner IFQ are issued in two classes, Class A IFQ and Class B IFQ. Class A IFQ are issued for 90 percent of the catcher vessel owner IFQ in a program fishery. Crab harvested using these IFQ must be delivered to a processor holding unused individual processing quota (IPQ). In addition, Class A IFQ are subject to regional share designations, whereby harvests are required to be delivered within an identified region. The delivery restrictions of Class A IFQ are intended to add stability to the processing sector by protecting processor investment in program fisheries and to preserve the historic distribution of landings and processing between regions. Since the only IFQ that are subject to regional landing requirements are catcher vessel owner Class A IFQ, it is only those IFQ that are directly subject to this action.

QS and IFQ are transferrable under the program, subject to limits on the amount of shares a person may own or use. Transferability of shares among eligible purchasers of QS and IFQ may promote production efficiency in the harvest sector and provides a means for compensated removal of excess harvesting capacity in the program fisheries. In addition, transferability may be used to avoid overages, in the event a harvester exceeds its available IFQ. The use of transfers to avoid overages could increase under a new amendment adopted by the Council that allows transfers after delivery to remedy an overage.

Leasing of owner QS (or equivalently, the sale of owner IFQ) will be prohibited, except by cooperatives, after the first five years of the program. Leasing is defined as the use of IFQ on a vessel in which the owner of the underlying QS holds less than a 10 percent ownership interest and on which the underlying QS holder is not present. The prohibition on leasing of QS (or sale of IFQ) by persons not in cooperatives is intended to create an incentive for cooperative membership. The interim period in which leasing is not constrained is intended to allow a period of adjustment during which harvesters can coordinate fishing activities and build relationships necessary for cooperative membership.

In addition to harvest shares, the program also created processing quota shares (PQS), which are allocated to processors and are analogous to the QS allocated to harvesters. PQS are a revocable privilege to receive deliveries of a fixed percentage of the annual TAC from a program fishery. These annual allocations are referred to as individual processing quota (IPQ). IPQ is issued for 90 percent of the owner IFQ pool, corresponding to the 90 percent allocation of owner IFQ as Class A IFQ. As with owner QS and Class A IFQ, PQS and IPQ are designated for processing in a region. These processing shares are intended to protect processor investment in program fisheries and preserve regional interests in the fisheries. Since all IPQ are subject to regional landing requirements, all IPQ are directly subject to this action. IPQ do not

apply to the remaining 10 percent of the catcher vessel owner IFQ, corresponding to the catcher owner IFQ allocated as Class B IFQ.

Processing shares are transferable, including leasing of PQS (or equivalently, the sale of IPQ) subject to use caps. As with harvesting shares, transferability of processing shares is intended to promote efficiency and facilitate compensated reduction of excess capacity. In addition, IPQ transfers may aid in the coordination of deliveries from the fisheries. To provide a period of general stability for processors and communities to adjust to the program a two-year ''cooling off period'' was established during which processing shares could not be relocated from the community where the historical processing occurred that led to the allocation (the community of origin).[3] In addition, a right of first refusal on certain transfers of PQS and IPQ was granted to the CDQ group that represents the community of origin (if there is one) or an entity designated by the community of origin (if the community is not represented by a CDQ group) for communities with significant crab processing history. Exceptions to the right allow a company to consolidate operations among several commonly owned plants to achieve intra-company efficiencies and the temporary lease of shares outside of the community of origin.

A processing share cap prevents any person from holding or using in excess of 30 percent of the outstanding processing shares in any program fishery. In general, all share holdings of an entity and any custom processing by a plant owned by an entity is counted toward that entity's cap. An exception that would exempt custom processing in certain fisheries and regions from the plant owners share cap was adopted recently. That exemption is intended to allow consolidation beyond the caps in fisheries and regions that pose particular economic challenges to processors.[4] As with vertical integration caps, processor share caps are applied using a threshold rule for determining whether the shares are held by a processor and then the individual and collective rule for determining the extent of share ownership. Under the threshold rule, any entity with 10 percent or more common ownership with a processor is considered to be a part of that processor. Any direct holdings of those entities are fully credited to the processor's holdings. Indirect holdings of those entities are credited toward the processor's cap in proportion to the entities ownership. A "grandfather" provision exempted initial allocations of PQS in excess of the cap. In the *C. opilio* fishery, in addition to the PQS ownership cap, no processor is permitted to use in excess of 60 percent of the IPQ issued in the North region.

Regional share designations

The allocation to regions is accomplished by regionally designating all Class A (delivery restricted) IFQ and all corresponding IPQ. In most program fisheries, regionalized shares are either North or South, with North shares designated for delivery in areas on the Bering Sea north of 56º 20´ north latitude and South shares designated for any other areas, including Kodiak and other areas on the Gulf of Alaska. In the Western Aleutian Islands (Adak) golden king crab fishery, the designation is based on an east/west line to accommodate a different distribution of activity in that fishery. Share designations are mostly based on

[3] The 'cooling off' limitation applied to most processing shares, but shares allocated based on processing history in communities with minor amounts of crab were not subject to the provision. In addition, each processing share holder was permitted to move small amounts of IPQ out of the 'community of origin' during the cooling off period to allow for some coordination of landings and more complete use of Class A IFQ and IPQ allocations.

[4] The exemption would apply to custom processing in the North region of the *C. opilio*, Pribilof red and blue king crab, the St. Matthew Island blue king crab, the Western Aleutian Islands red king crab, the Western Aleutian Islands golden king crab, and the Eastern Aleutian Islands golden king crab fisheries. The exemption is limited to processing that occurs in communities to protect community interests. Along with the exemption, a provision was adopted that would limit the processing in any facility to 60 percent of the IPQ in the Western Aleutian Islands golden king crab and Eastern Aleutian Islands golden king crab fisheries.

the historic location of the landings and processing that gave rise to PQS allocations. So, share distributions across regions differ by fishery, as shown in the following:

Bristol Bay red king crab – division at 56°20'N latitude
- 3 percent - North
- 97 percent - South

Bering Sea *C. opilio* – division at 56°20'N latitude
- 47 percent – North
- 53 percent - South

Eastern Bering Sea *C. bairdi* – none (or undesignated)

Western Bering Sea *C. bairdi* – none (or undesignated)

Pribilof red and blue king crab – division at 56°20'N latitude
- 68 percent - North
- 32 percent - South

St. Matthew Island blue king crab – division at 56°20'N latitude
- 78 percent - North
- 22 percent - South

Western Aleutian Islands red king crab – division at 56°20'N latitude
- 100 percent - South

Eastern Aleutian Islands golden king crab – division at 56°20'N latitude
- 100 percent - South

Western Aleutian Islands golden king crab – division at 174ºW longitude
- 50 percent - Undesignated
- 50 percent - West

The arbitration system

Since delivery of Class A IFQ is permitted only to a holder of unused IPQ, an arbitration system is included in the program to ai in the resolution of price disputes. The arbitration system serves several important purposes in the program. It coordinates the matching of A share IFQ held by harvesters with IPQ held by processors. For a 5-day period starting when IFQ and IPQ are issued, shares are matched only by mutual agreement of share holders. After that period has expired, shares may be matched either by agreement or by unilateral commitment of the IFQ holder. Although this share matching process may aid in establishing commitments to deliver and receive A share IFQ landings, the terms of those transactions may be disputed. The arbitration system defines a procedure intended to assist participants in coming to reasonable terms for those deliveries. If the parties are unable to negotiate a settlement, an arbitration process may be used to resolve those terms. The arbitration system can be used to resolve not only price, but delivery time and location. To date, the arbitration system has not been used to settle delivery time or location. Parties have resolved those issues outside of the arbitration process.

2.3.2 The harvest sector

This section of examines the distribution of interest and activities in the harvest sector under the program. The section begins with a summary of share holdings, then describes harvest activities. The section contains limited information concerning the Class B IFQ and C share QS and IFQ, since those shares are not directly affected by this action.

Owner harvest share holdings

The distribution of owner share holdings varies across fisheries (see Table 1) Share holdings in the Aleutian Islands fisheries, which have the least participants, are the most concentrated. In all fisheries, at

least one share holder exceeds the individual use cap, as initial allocations above the cap were grandfathered. In the Western Aleutian Island golden king crab and Western Aleutian Islands red king crab fisheries the largest initial allocation was in excess of 4 times the share cap; in the Bristol Bay red king crab, Bering Sea *C. opilio*, Bering Sea *C. bairdi*, Eastern Aleutian Islands golden king crab, and St. Matthew Island blue king crab fisheries, the largest initial allocation was more than double the individual use cap. Notwithstanding these large share holdings, the median share holding in all fisheries, except the Eastern Aleutian Islands golden king crab fishery, is less than half the individual use cap. The regional distribution of shares differed with landing patterns that arose from the geographic distribution of fishing grounds and processing activities. In the Bering Sea *C. opilio* fishery, almost half of the catcher vessel owner QS are designated for landing in the North region, while in excess of two-thirds of the catcher vessel owner pool is designated for landing in the North region in both the St. Matthew Island blue king crab and Pribilof red and blue king crab fisheries. CDQ groups, who are subject to separate higher share holdings caps, are permitted to acquire shares over the cap level that applies to all other persons. In each fishery, one of those groups has acquired shares beyond the individual cap applicable to persons other than CDQ groups since the program was implemented.

Table 1 Current owner quota share holdings by region.

Fishery	Share holdings by region						Across regions			
	Region/Catcher processor	QS holders	Percent of pool	Mean holding	Median holding	Maximum holding	QS holders	Mean holding	Median holding	Maximum holding
Bristol Bay red king crab	North	32	2.4	0.1	0.0	0.2	245	0.41	0.34	3.44
	South	234	93.0	0.4	0.3	3.4				
	Catcher processor	12	4.5	0.4	0.3	1.0				
Bering Sea *C. opilio*	North	202	42.7	0.2	0.2	1.2	231	0.43	0.41	2.59
	South	205	48.2	0.2	0.2	2.6				
	Catcher processor	13	9.1	0.7	0.7	2.2				
Eastern Bering Sea *C. bairdi*	Undesignated	234	93.3	0.4	0.3	2.6	244	0.41	0.31	2.91
	Catcher processor	13	6.7	0.5	0.5	1.1				
Western Bering Sea *C. bairdi*	Undesignated	234	93.3	0.4	0.3	2.7	244	0.41	0.31	2.91
	Catcher processor	13	6.7	0.5	0.5	1.1				
Eastern Aleutian Island golden king crab	South	13	95.2	7.3	6.6	20.4	15	6.67	5.97	20.35
	Catcher processor	2	4.8	2.4	2.4	4.1				
Western Aleutian Island golden king crab	Undesignated	13	26.9	2.1	1.0	11.0	16	6.25	1.74	45.73
	West	9	26.9	3.0	1.3	13.5				
	Catcher processor	3	46.2	15.4	0.5	45.7				
Western Aleutian Island red king crab	South	32	61.0	1.9	0.5	13.5	33	3.03	0.62	45.16
	Catcher processor	2	39.0	19.5	19.5	37.8				
St. Matthew Island blue king crab	North	121	76.7	0.6	0.6	3.4	136	0.74	0.62	4.45
	South	84	21.3	0.3	0.1	2.2				
	Catcher processor	5	2.0	0.4	0.3	0.9				
Pribilof red and blue king crab	North	85	67.1	0.8	0.5	3.1	113	0.88	0.52	3.42
	South	76	32.4	0.4	0.3	2.8				
	Catcher processor	1	0.5	0.5	0.5	0.5				

Source: NMFS Restricted Access Management IFQ database, crab fishing year 2007-2008.
Note: These share holdings data are publicly available and non-confidential.

Ninety percent of annual owner IFQ allocations are issued as Class A IFQ. In fisheries that are subject to the program's regionalization component, these IFQ are subject to regional landing requirements. The amount of IFQ that are subject to regional landing requirements is determined based on the TAC (see Table 2). Regional landing requirements are split almost equally between North and South in the Bering Sea *C. opilio* fishery. As a result, approximately 20 million pounds of each have been subject to North or South regional landing requirements in each of the last two years. In the Bristol Bay red king crab fishery, most of the IFQ subject to regional landing requirements are required to be landed in the South region, with fewer than 1 million pounds required to be landed in the South region. In the Western Aleutian Islands golden king crab fishery approximately 600,000 pounds have been required to be landed in the West region each year of the program.

Table 2 IFQ subject to regional landing requirements (2005-2006 through 2008-2009).

Fishery	Region	Season			
		2005-2006	2006-2007	2007-2008	2008-2009
Bristol Bay red king crab	North	348,759	294,205	388,006	387,853
	South	13,427,878	11,293,616	14,893,400	14,886,834
Bering Sea *C. opilio*	North	12,428,159	12,137,450	21,073,807	19,382,290
	South	14,117,399	13,799,709	23,957,111	22,250,814
Eastern Aleutian Islands golden king crab	South	2,243,081	2,245,212	2,243,082	2,355,261
Western Aleutian Islands golden king crab	West	570,932	570,932	570,932	599,474

Source: NMFS RAM IFQ data.

Vessel participation and harvest activity

This section reviews harvest sector IFQ use and participation in the fisheries in the first three years of the program. The section begins with a brief discussion of participation levels before and after implementation of the program and the overall harvest of IFQ. The section goes on to discuss cooperative fishing and leasing, to the extent that those practices are known. The section concludes with a discussion of vessel operations and the distribution of catch among the participating fleet.

Examining data from the first three years of the program show a substantial reduction in the fleets in all fisheries (see Table 3). The figures reveal initial precipitous declines that, as expected, gradually slowed over time. Prior to the implementation of the rationalization program, between 167 and 251 vessels participated annually in each of the two largest fisheries, the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries. In the Bristol Bay red king crab fishery, the fleet contracted to less than one-third its pre-rationalization size. In the Bering Sea *C. opilio* fishery the fleet contracted to levels similar to those in the Bristol Bay red king crab fishery, but the contraction was of smaller magnitude because this fleet had contracted to some degree prior to implementation of the program, as GHLs in the fishery were at historic lows in the years preceding the program. The table shows that catcher processor participation in the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries dropped slightly less than participation of catcher vessels. Substantial fleet consolidation also occurred in the smaller Aleutian Islands golden king crab fisheries, while the Bering Sea *C. bairdi* fisheries were reopened under the program after being closed for nearly a decade.

Fleet consolidation in the program fisheries was the result of owners and operators making business decisions to idle boats in order to remove excess capacity from the fisheries. Leasing of quota, and the accompanying retirement or sidelining of excess capital, has taken place to the degree but more quickly than most predicted. A few factors likely contributed to the substantial consolidation that occurred in the first years of the program. Consolidation was stimulated by the cooperative structure under the program. Cooperatives created the framework and led to the development of harvesting associations, strengthening relationships creating an environment ripe for leasing. The cooperative structure also reduces administrative burdens for in-season quota exchanges among members, which are not reported to NOAA Fisheries administrators, since each cooperative manages the aggregated allocation of IFQ of its members.

Table 3 Catch and number of vessels by operation type.

Fishery	Season	Catch	Catch (as percent of total**) by		Number of vessels participating		
			catcher vessels	catcher processors	catcher vessels	catcher processors	all unique vessels
Bering Sea *C. opilio*	2001	22,940,704	86.5	13.5	201	8	207
	2002	29,609,702	94.4	5.6	182	9	190
	2003	25,410,122	96.8	3.2	185	5	190
	2004	21,939,493	97.0	3.0	183	6	189
	2005	22,655,777	97.1	2.9	161	6	167
	2005 - 2006	33,248,009	92.2	7.2	76	4	78
	2006 - 2007	32,699,911	90.9	8.4	66	4	70
	2007 - 2008	56,722,400	92.4	7.6	74	4	78
Bristol Bay red king crab	2000	7,468,240	97.2	2.8	238	6	244
	2001	7,681,106	95.9	4.1	224	8	230
	2002	8,770,348	96.6	3.4	234	9	241
	2003	14,237,375	95.2	4.8	242	8	250
	2004	13,889,047	95.7	4.3	243	8	251
	2005 - 2006	16,472,400	96.7	3.3	88	4	89
	2006 - 2007	13,887,531	*	*	79	3	81
	2007 - 2008	18,324,046	*	*	72	3	74
Eastern Bering Sea *C. bairdi*	2006 - 2007	1,267,106	*	*	33	3	36
	2007 - 2008	1,439,435	*	*	19	1	20
Western Bering Sea *C. bairdi*	2005 - 2006	791,025	*	*	42	2	43
	2006 - 2007	633,910	*	*	34	2	36
	2007 - 2008	467,136	*	*	26	1	27
Eastern Aleutian Islands golden king crab	2000 - 2001	3,086,890	*	*	15	0	15
	2001 - 2002	3,128,409	100.0	0.0	19	0	19
	2002 - 2003	2,765,436	100.0	0.0	19	0	19
	2003 - 2004	2,900,247	100.0	0.0	18	0	18
	2004 - 2005	2,846,273	100.0	0.0	20	0	20
	2005 - 2006	2,569,209	*	*	6	1	7
	2006 - 2007	2,692,009	*	*	5	1	6
	2007 - 2008	2,690,377	*	*	3	1	4
Western Aleutian Islands golden king crab	2000 - 2001	2,902,518	*	*	11	1	12
	2001 - 2002	2,693,221	*	*	8	1	9
	2002 - 2003	2,605,237	*	*	5	1	6
	2003 - 2004	2,637,161	*	*	5	1	6
	2004 - 2005	2,639,862	*	*	5	1	6
	2005 - 2006	2,382,468	*	*	2	1	3
	2006 - 2007	2,002,186	*	*	2	1	3
	2007 - 2008	2,246,040	*	*	2	1	3
All fisheries	2000 - 2001				246	10	253
	2001 - 2002				235	11	243
	2002 - 2003				238	11	247
	2003 - 2004				245	9	254
	2004 - 2005				247	9	256
	2005 - 2006				100	5	101
	2006 - 2007				87	5	91
	2007 - 2008				83	5	87

Sources: ADFG fishtickets and NMFS RAM catch data (for 2005-2006, 2006-2007, and 2007-2008)

* Withheld for confidentiality.

** Catch as a percent of IFQ allocations for 2005-2006, 2006-2007, and 2007-2008 seasons.

Note: "All fishery" participation in a season includes all fisheries prosecuted between August 1 and July 31.

For 2005-2006, 2006-2007, and 2007-2008 catcher processor vessel count include all vessels harvesting catcher processor shares.

Short term transfers under leases and cooperative fishing arrangements are the primary means by which QS holders in the crab fisheries have achieved fleet consolidation under the rationalization program. These leases and transfers within cooperatives have also facilitated more complete harvest of allocations and coordination of deliveries in the event of unanticipated circumstances.

The cooperative arrangements and the complexity of ownership patterns in the fisheries prevent any reliable estimates of the extent of leasing in the fisheries. Intra-cooperative transfers of IFQ are not

administered or tracked by fishery managers, limiting available information concerning these transfers.[5] Vessel ownership data are limited. QS ownership information reveal complex, overlapping individual, partnership, and corporate holdings of QS. This array of QS ownership arrangements, together with the absence of vessel ownership information, limits any ability to develop a full understanding of the scope of leasing in the fisheries.[6]

Cooperative membership appeals to QS holders for several reasons. Cooperative shares are more easily consolidated because transfers among cooperative members are administered by the cooperative rather than by NOAA Fisheries, with NOAA Fisheries monitoring catch of the cooperative as a whole. Since NOAA Fisheries monitors a cooperative's fishing in the aggregate, share transactions among members may be held confidential. Liberal rules exempt vessels fishing cooperative allocations from vessel IFQ use caps. Because of these attributes, most QS holders have elected to join cooperatives (Table 4). By the third year of the program, nearly all IFQ were held by cooperatives. In addition, the inability of non-cooperative IFQ holders to engage in IFQ transfers with cooperatives increases the incentive for cooperative membership as the share of IFQ held outside of cooperatives (which may be available for coordinating harvest activity among non-cooperative IFQ holders) decreases. The degree of consolidation of harvest activity is also shown by the relatively large share of the IFQ held by a relatively small number of cooperatives in the fisheries. In the 2007-2008 Bristol Bay red king crab and Bering Sea *C. opilio* fisheries, fewer than 20 cooperatives held in excess of 98 percent of the IFQ, with a single cooperative holding in excess of 20 percent of the IFQ in the Bristol Bay fishery. Although these cooperatives may allow each large QS holder to fish their contribution to the cooperative's IFQ, the cooperative management provides a framework that simplifies consolidation in the harvest sector.

Table 4 Percent of IFQ held by cooperatives.

Fishery	Number of IFQ holders (including cooperatives)	Number of cooperatives	Number of cooperative members	Percent of IFQ allocated to cooperatives	Maximum cooperative allocation	Maximum number of cooperative members
	2005 - 2006					
Bristol Bay red king crab	90	13	306	83.3	16.9	74
Bering Sea *C. opilio*	82	13	285	83.6	15.2	64
Bering Sea *C. bairdi*	111	13	291	82.5	14.3	69
Eastern Aleutian Island golden king crab	7	3	22	91.2	59.9	12
Western Aleutian Island golden king crab	3	3	18	100.0	47.3	12
	2006 - 2007					
Bristol Bay red king crab	37	16	350	98.2	21.7	87
Bering Sea *C. opilio*	31	16	318	98.5	19.4	74
Eastern Bering Sea *C. bairdi*	54	15	327	96.9	17.2	75
Western Bering Sea *C. bairdi*	55	16	338	96.9	17.9	75
Eastern Aleutian Island golden king crab	5	4	23	99.9	45.9	12
Western Aleutian Island golden king crab	4	3	17	99.8	45.6	10
	2007 - 2008					
Bristol Bay red king crab	28	17	361	98.7	20.5	85
Bering Sea *C. opilio*	25	18	347	99.4	18.8	73
Eastern Bering Sea *C. bairdi*	29	13	313	99.0	17.9	74
Western Bering Sea *C. bairdi*	32	16	336	99.0	14.8	74
Eastern Aleutian Island golden king crab	5	4	23	99.9	53.3	11
Western Aleutian Island golden king crab	4	3	15	99.8	48.1	9

Source: NMFS RAM catch data.

[5] Although leasing information is collected in the economic data reports, the reliability of those data are uncertain because the leasing definition may not be consistently interpreted across the fleet and some transactions may be between affiliates.

[6] Determining the scope of leasing also requires the development of a definition of leasing. Depending on the definition, two very similar arrangements could be characterized differently. In addition, under any definition, minor changes in a relationship may result in the recharacterization of the relationship as a lease. For example, under most definitions of leasing if two persons have equal QS holdings and one independently owns a vessel that harvests all of the yielded IFQ, half of the IFQ would be viewed as leased. If these persons formed a partnership that held all of the QS, it is possible that none of the IFQ would be viewed as leased.

The extent to which cooperatives manage harvest of their allocations varies across cooperatives. Some cooperatives have relatively central management of harvest activities, while others leave members to determine the harvest of their own allocations. Although some cooperatives have continued to allow individual members to arrange the harvest of their shares, over the first three years of the program, cooperative management of quota has increased. This relinquishment of individual management of the harvest of shares not only contributes to consolidation of IFQ harvests, but also has allowed for better coordination in the event of unanticipated circumstances.

In each of the first three years of the crab rationalization program, ice conditions in the North region delayed deliveries from vessels carrying full tanks of crab in the Bering Sea *C. opilio* fishery. In addition, in the second year, a fire on a floating processor limited capacity in the North region, further complicating compliance with regional delivery requirements in the *C. opilio* fishery. Notwithstanding these barriers to deliveries that have arisen in the first three years of the program, participants have harvested most of the issued IFQ (Table 5). The percentage of shares harvested is relatively consistent across regions in most fisheries. The exceptions are the Western Bering Sea *C. bairdi*, Eastern Bering Sea *C. bairdi* and Western Aleutian Islands golden king crab fisheries. The *C. bairdi* fisheries are reported by participants to be particularly difficult to prosecute because of low catch rates. Harvest of the Western Aleutian Islands golden king crab fishery is reported to be economically challenging because of low market prices for golden king crab. Although the amount of unharvested IFQ in the Western Aleutian Islands golden king crab fishery cannot be reported on a regional basis due to policies regarding the protection of confidential data, participants report that most of the unharvested IFQ are from the West region, where processing costs are reported to be relatively high. The failure to harvest and deliver these IFQ is not attributable to any emergency condition that might qualify for any exemption under consideration in this action.

Table 5 Percentage of IFQ harvested by operation type, share type, and region.

Season	Fishery	Catcher vessel												Catcher processor			
		Owner										Crew		Owner		Crew	
		Class A North		Class A South		Class A West		Class A Undesignated		Class B							
		Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested	Number of vessels	Percent of IFQ harvested
2005 - 2006	Bristol Bay red king crab	9	100.0	84	99.9					68	99.7	65	95.6	8	100.0	6	99.8
	Bering Sea *C. opilio*	59	99.3	69	99.6					55	99.2	50	93.6	7	99.9	7	87.4
	Eastern Aleutian Islands golden king crab			6	95.1					6	92.6	4	95.9	3	*		
	Western Aleutian Island golden king crab					2	*	2	*	2	*	2	*	2	*	2	*
	Western Bering Sea *C. bairdi*							32	58.4	18	41.5	10	27.9	2	*	2	*
2006 - 2007	Bristol Bay red king crab	6	100.0	75	100.0					61	99.2	58	96.1	8	99.9	7	100.0
	Bering Sea *C. opilio*	43	100.0	54	100.0					50	99.9	44	96.8	7	100.0	5	86.8
	Eastern Aleutian Islands golden king crab			5	100.0					4	100.0	3	88.4	2	*		
	Eastern Bering Sea *C. bairdi*							27	79.0	11	68.5	13	55.5	5	42.5	4	55.0
	Western Aleutian Island golden king crab					1	*	2	*	2	*	2	*	2	*	1	*
	Western Bering Sea *C. bairdi*							28	69.0	11	56.0	10	48.6	3	33.4	2	*
2007 - 2008	Bristol Bay red king crab	6	100.0	71	100.0					45	99.8	41	99.4	10	99.9	7	100.0
	Bering Sea *C. opilio*	67	100.0	69	100.0					50	99.9	37	100.0	8	100.0	6	100.0
	Eastern Aleutian Islands golden king crab			3	99.9					3	98.2	2	*	1	*		
	Eastern Bering Sea *C. bairdi*							18	47.0	6	52.2	4	38.7	3	36.4		
	Western Aleutian Island golden king crab					1	*	2	*	2	*	1	*	2	*	1	*
	Western Bering Sea *C. bairdi*							25	26.4	4	14.7	4	19.8	1	*		

Source: RAM IFQ database, 2005-2006, 2006-2007, and 2007-2008.

* withheld for confidentiality.

Note: blanks are inapplicable.

2.3.3 The processing sector

This section describes the processing sector in the fisheries. The section begins with a discussion of the distribution of processing shares under the program, then describes the processing practices and the operations of the sector.

Processor share holdings

PQS holdings are substantially more concentrated than catcher vessel owner QS holdings (Table 6). As in with harvest privileges, concentration of processing privileges varies across fisheries. The Aleutian Islands fisheries, which have the least participation are the most concentrated. The Bristol Bay red king crab, Bering Sea *C. opilio*, and Bering Sea *C. bairdi* fisheries, which have the most participants, are the least concentrated. The regional distribution of shares differs with landing patterns that arose from the geographic distribution of fishing grounds and processing activities. In the Pribilof red and blue king crab fisheries, most historic processing occurred in the Pribilofs, resulting in over two-thirds of the processing allocations in those fisheries being designated for processing in the North region. Most processing in the St. Matthew Island blue king crab fishery occurred on floating processors near the fishing grounds in the North region. The Bering Sea *C. opilio* fishery allocations are split almost evenly between the North and South regions; while less than 5 percent of the Bristol Bay red king crab PQS is designated for North processing. All qualifying processing in the Eastern Aleutian Island golden king crab fishery occurred in the South region, resulting in all processing shares in that fishery (and in the Western Aleutian Islands red king crab fishery, which was based on the same history) being designated for processing in the South region. All processing allocations Western Aleutian Islands golden king crab fishery were split evenly with half required to be processed in the West region and half undesignated, which can be processed anywhere. Bering Sea *C. bairdi* processing shares are also undesignated.

The relatively low median share holdings, unchanged from the initial allocation, suggest that a large portion of the historic processing was concentrated among fewer than 10 processors in the large fisheries (the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries). In the smaller fisheries, fewer than 5 processors hold a large majority of the PQS pool. The maximum share holding in each fishery is in excess of twenty percent of the pool. In other fisheries, share holders, grandfathered at initial allocation, exceed the share cap. In the Western Aleutian Islands golden king fishery, the maximum share holding is in excess of 60 percent of the pool, double the share holdings cap. In the Eastern Aleutian Islands fishery, one share holding of approximately 45 percent of the pool is in excess of one and one-half times the cap. In only one other fishery, the St. Matthews Island blue king crab fishery, does a PQS share holding exceed the cap. In that fishery, slightly greater than 30 percent of the PQS are held by one processor.
Since data do not show ownership at the individual level, they do not completely describe existing holdings of processor share interests.

Table 6 Processing quota share holdings by region

Fishery	Share holdings by region					Across regions			
	Region	QS holders	Mean holding	Median holding	Maximum holding	QS holders	Mean holding	Median holding	Maximum holding
Bristol Bay red king crab	North	2	1.28	1.28	2.33	16	6.25	2.60	23.16
	South	16	6.09	2.60	20.83				
Bering Sea *C. opilio*	North	8	5.87	5.51	15.46	20	5.00	2.08	25.18
	South	18	2.95	0.25	9.72				
Eastern Bering Sea *C. bairdi*	Undesignated	23	4.35	0.83	24.26	23	4.35	0.83	24.26
Western Bering Sea *C. bairdi*	Undesignated	23	4.35	0.83	24.26	23	4.35	0.83	24.26
Eastern Aleutian Island golden king crab	South	8	12.50	6.04	45.91	8	12.50	6.04	45.91
Western Aleutian Island golden king crab	Undesignated	8	6.25	0.41	33.29	9	11.11	1.03	62.98
	West	9	5.56	0.49	29.69				
Western Aleutian Island red king crab	South	9	11.11	1.03	62.98	9	11.11	1.03	62.98
St. Matthew Island blue king crab	North	6	13.06	8.92	29.94	12	8.33	5.06	32.67
	South	9	2.41	1.76	7.81				
Pribilof red and blue king crab	North	6	11.26	12.01	23.28	14	7.14	3.17	24.49
	South	11	2.95	0.98	13.50				

Source: NMFS Restricted Access Management IFQ database, crab fishing year 2007-2008.
Note: These share holdings data are publicly available and non-confidential.

The rationalization program provides communities with substantial processing history with the opportunity to designate an entity that is entitled to hold rights of first refusal on certain transfers of IPQ and PQS for use outside of the community in which processing occurred that led to the allocation of the PQS (the community of origin). The provision defines certain transfers that are exempt from the rights (including intra-company transfers), as well as criteria for determining whether a transfer is intended to move processing from the community of origin. In addition, if a PQS holder has used the yielded IPQ outside the community for a period of three consecutive years, the right lapses. Based on historical landings, the distribution of rights of first refusal varies across fisheries and regions (see Table 7).

Table 7 Distribution of rights of first refusal by community (2007-2008).

Fishery	Region	Right of first refusal boundary	Number of PQS holders	Percentage of PQS pool
Bristol Bay red king crab	North	None	1	0.0
		St. Paul	2	2.7
	South	Akutan	1	20.8
		False Pass	1	3.9
		King Cove	1	9.8
		Kodiak	3	4.0
		None	4	3.6
		Port Moller	3	3.7
		Unalaska	11	51.5
Bering Sea *C. opilio*	North	None	3	1.0
		St. George	2	9.7
		St. Paul	6	36.3
	South	Akutan	1	9.7
		King Cove	1	6.3
		Kodiak	4	0.1
		None	4	1.8
		Unalaska	13	35.0
Eastern Aleutian Islands golden king crab	South	None	1	1.7
		Unalaska	7	98.3
Pribilof red and blue king crab	North	None	1	0.3
		St. Paul	5	67.3
	South	Akutan	1	1.2
		King Cove	1	3.8
		Kodiak	4	2.9
		Unalaska	5	24.6
St Matthew Island blue king crab	North	None	5	64.6
		St. Paul	4	13.8
	South	Akutan	1	2.7
		King Cove	1	1.3
		Kodiak	1	0.0
		Unalaska	6	17.6

Source: RAM PQS data 2007-2008.

The limitations of the 'cooling off' provision prevented the movement of most IPQ subject to the right of first refusal from the community of origin in the first two years of the program. As a result, only in the third year of the program was any notable portion of the IPQ permitted to be moved. As a result, rights of first refusal on PQS are believed to have lapsed in only a few instances. Most notably, the right is believed to have lapsed with respect to shares arising from historic processing in St. George. The St. George harbor and its entrance were damaged by a storm in 2004. In the first two years of the program, that damage was found to have prevented processing in St. George. As a consequence, the right of first refusal lapsed on shares for which the Aleutian Pribilof Island Community Development Association (APICDA) holds rights of first refusal on behalf of St. George under the terms required by regulation. Despite these provisions, APICDA is reported to have reached agreements with both holders of processing shares formerly subject to the right to protect interests of St. George.

Processing operations

Under the rationalization program, a large portion of the processing (and raw crab purchasing) is vested in the holders of processing shares. These share holders have used their allocations to consolidate processing activities in the fisheries, with plant participation in each fishery dropping by approximately one-third. Since the rationalization program was implemented, the number of processing plants participating in the Bristol Bay red king crab fisheries declined to 12, and has remained constant at that level. The average processing by the top 3 plants in fishery increased to approximately 20 percent, with the concentration of the different share types slightly higher (suggesting that the largest processors of the different share types differ). In the first three years of the program, between 10 and 12 processors have participated in the Bering Sea *C. opilio* fishery, a decline of almost 5 processors from prior to the program. Concentration of processing declined slightly in the most recent season. This decline likely resulted from the increase in the TAC, which resulted in substantial increases in the mean and median pounds processed, as well as the average pounds processed by the largest three plants. Ten or fewer plants participated in processing in the Bering Sea *C. bairdi* fisheries in the first three years of the program. Since these fisheries are directly prosecuted by few vessels and have relatively small TACs, the processing is slightly more concentrated than in the two largest fisheries. Five or fewer processors participated in the Eastern Aleutian Island golden king crab and Western Aleutian Island golden king crab fisheries in the first three years of the program, limiting the information that may be released concerning processing in those fisheries. In all cases, fewer plants processed deliveries of Class B IFQ and C share IFQ than deliveries of Class A IFQ.

In the first two years of the program, a large portion of the IPQ pool was subject to the "cooling off" provision, which required processing to occur in the community of the processing history that led to the allocation of the underlying PQS. Consequently, few changes in the distribution of processing of Class A IFQ/IPQ landings occurred in the first two years of the program. Also, for most shares entities representing the community of origin hold a right of first refusal on the transfer of the PQS and IPQ for use outside the community. This right is relatively weak because intra-company transfers are exempt from the right and the right lapses, if the IPQ are used outside of the community of origin for a period of years. Despite the end of the cooling off period and the ease with which the right of first refusal may be avoided, in the third year of the program, most processing of IPQ landings have continued to be made in the community of origin.

In the third year of the program, with the lapse of the 'cooling off' provision requirements, some redistribution of processing of Class A IFQ landings is apparent (see Table 8). Dutch Harbor and Akutan, collectively, attracted slightly more Class A IFQ landings and a substantially larger majority of the Class B and C share IFQ landings than in the two preceding years. These landings returned King Cove and Kodiak, collectively, to a percentage of C share IFQ processing observed in the first year of the program, but reduced their processing of Class B IFQ crab to lower than the first year level. Akutan and Dutch Harbor also drew a substantial percentage of Class B and C share IFQ in the Bering Sea *C. opilio* fishery in the third year of the program; however, processing of A share IFQ in those communities dropped substantially (by approximately 25 percent) from the previous two years. In the Eastern Bering Sea *C. bairdi* fishery, Dutch Harbor attracted slightly less than one-half of the Class A IFQ/IPQ processing and processed all Class B IFQ and C share IFQ landings.

Table 8 Processing by share type and community (2007-2008)

Fishery	Community	Class A IFQ			Class B IFQ			C share IFQ		
		Number of active plants	Pounds of share type processed	Percent of share type processed	Number of active plants	Pounds of IPQ landings processed	Percent of IPQ pool processed	Number of active plants	Pounds of IPQ landings processed	Percent of IPQ pool processed
Bristol Bay red king crab	Akutan	1	10,141,102	66.4	1	1,395,927	82.4	1	359,073	68.4
	Dutch Harbor	4			4			4		
	Floater	1	*	*	1	*	*	1	*	*
	King Cove	1	2,931,636	19.2	1	204,118	12.0	1	118,397	22.5
	Kodiak	2			3			3		
	St. Paul	1	*	*	1	*	*	1	*	*
Bering Sea *C. opilio*	Akutan	1	15,364,728	34.1	1	4,466,230	89.3	1	1,400,046	87.4
	Dutch Harbor	3			4			4		
	Floater	2	*	*	2	*	*	2	*	*
	King Cove	1	*	*	1	378,219	7.6			
	Kodiak	1	*	*	3			2	*	*
	St. Paul	1	*	*	1	*	*	1	*	*
E. Aleutian Islands golden king crab	Dutch Harbor	4	2,241,690	99.9	3	244,843	100.0	2	*	100.0
W. Aleutian Islands golden king crab	Adak	1	*	*	1	*	*			
	Dutch Harbor	2	*	*	1	*	*	1	*	*
Western Bering Sea *C. bairdi*	Dutch Harbor	2	*	*	2	*	*	2	*	*
	Floater	2	*	*	1	*	*			
	King Cove	1	*	*						
	St. Paul	1	*	*				1	*	*
Eastern Bering Sea *C. bairdi*	Akutan	1	*	*						
	Dutch Harbor	3	695,543	27.5	3	146,584	100.0	4	32,984	100.0
	Floater	2	*	*						
	King Cove	1	*	*						

Source: RAM IFQ data and RCR permit file.

* withheld for confidentiality.

Note: For Class A IFQ shows percentage of IPQ pool.

Processing share holders have achieved efficiencies under the program through consolidation of processing activities in fewer plants. A portion of this consolidation has been through traditional transfer of PQS and IPQ; substantial portion has occurred through custom processing arrangements. Under these arrangements, a share holder contracts for the processing of landings of crab, while retaining all interests and obligations associated with the landed and processed crab.

The prevalence of custom processing relationships is evident in comparing the number of active IPQ accounts with the number of active processing plants (see Table 9). In the first year of the program, custom processing of IPQ occurred most prominently in North region of the Bering Sea *C. opilio* fishery. Custom processing arrangements in that fishery expanded in the second year of the program and appear to have declined in the third year. The decline may have occurred as relationships between plants and share holders stabilized, with fewer share holders having relationships with more than one plant. Few custom processing arrangements existed in the Bristol Bay red king crab fishery until the third year of the program, when Dutch Harbor plants entered relationships with several buyers. Few custom processing arrangements exist in other fisheries; however, it is possible that extensive custom processing may have occurred under any of those arrangements. Data cannot be revealed on these processing under these arrangements because of the relatively few processing participants in the fisheries.

Table 9 Number of active IPQ holder (buyer) accounts and IPQ processing plants by fishery (2005-2006 though 2007-2008).

Fishery	Region	Community of Plant	2005 - 2006		2006 - 2007		2007 - 2008	
			Number of active IPQ holder accounts	Number of active plants	Number of active IPQ holder accounts	Number of active plants	Number of active IPQ holder accounts	Number of active plants
Bristol Bay red king crab	North	St. Paul	1	1	1	1	2	1
	South	Akutan	1	1	1	1	2	1
		Dutch Harbor	3	3	3	3	7	4
		King Cove	1	1	3	1	1	1
		Kodiak	2	2	2	2	2	2
		Floater	2	2	2	2	2	1
Bering Sea *C. opilio*	North	St. Paul	1	1	1	1	5	1
		Floater	6	3	14	2	3	1
	South	Akutan	1	1	1	1	1	1
		Dutch Harbor	5	4	7	3	4	3
		King Cove	1	1	1	1	1	1
		Kodiak	1	1	1	1	1	1
		Floater	1	1			3	1
E. Aleutian Islands golden king crab	South	Akutan			1	1		
		Dutch Harbor	3	3	4	4	4	4
		Floater	1	1				
W. Aleutian Islands golden king crab	Undesignated	Adak	1	1				
		Dutch Harbor	2	2	2	2	2	2
	West	Adak	2	1	2	1	1	1
		Floater	3	2				
Eastern Bering Sea *C. bairdi*	Undesignated	Akutan	Fishery closed		1	1	1	1
		Dutch Harbor			5	3	4	3
		King Cove			1	1	1	1
		Floater			1	1	2	2
Western Bering Sea *C. bairdi*	Undesignated	Akutan	1	1	1	1		
		Dutch Harbor	4	4	5	3	2	1
		King Cove	1	1	1	1	1	1
		Kodiak	1	1				
		St. Paul	1	1			3	1
		Floater	4	2	1	1	3	2

Source: RAM IFQ data and RCR permit file.

2.3.4 Ex vessel and first wholesale pricing

Under the program, harvesters making deliveries of crab harvested with Class A IFQ can resort to an arbitration system to resolve any price disputes. Although arbitration is available to harvesters, it is rarely used. Notwithstanding this infrequent use, as the fallback for pricing settlements, the arbitration system (and particularly its standard) is the primary price determinant for landings of crab harvested with Class A IFQ. The arbitration standard calls upon the arbitrator to set an ex vessel price that is equal to the historic division of first wholesale revenues in a fishery while considering other relevant factors (such as other delivery terms). An annually produced, advisory formula sets out historic pricing and a methodology for deriving ex vessel prices. In the last two years, the formula has relied on regressions to express ex vessel prices as a function of first wholesale prices – the percentage of the first wholesale price that should be paid as the ex vessel price varies with the first wholesale price. Since this formula is the basis for most negotiations, first wholesale pricing is almost directly determinative of ex vessel pricing.

Crab harvested in program fisheries is sold in an international market in which landings from high-volume crab producing countries such as Canada and Russia largely determine world prices. Program fisheries have accounted for only a small percentage of the overall supply in their primary markets, Japan and the United States. Consequently, the Alaska crab industry has very limited ability to influence prices for Alaska product (Herrmann and Greenberg 2006).

For the past several years the market and prices for Bristol Bay red king crab and Aleutian Island golden king crab have been especially affected by Russian king crab production. Alaska red king crab competes directly with Russian red king crab, while Alaska golden king crab competes with Russian small red king crab that has been particularly abundant in the Far East fisheries. In the first season of the program (2005-2006), the Russian supply of king crab increased substantially, pushing prices for Alaska red and golden king crab down. Prices declined steadily, bottoming out in 2006 as the increase in the crab supply caused by the expansion of Russian crab exports continued. A price increase that started in late 2006 was stimulated by a sharp drop in Russian production, together with a more aggressive Japanese market and growth of king crab as a promotion item by high-volume U.S. retailers. (Sackton, 2007a). That recovery in prices continued in 2008 due to a persistent lack of Russian product (Urner Barry, 2008).

Alaska *C. opilio* competes directly with Canadian *C. opilio*, which has been very abundant in recent years. In the first season of the program, the demand for Bering Sea *C. opilio* was poor in both the Japanese and U.S. markets, as buyers cut back purchases in response to high prices in 2005. Large inventories of unsold product from 2005, together with disruptions in important markets, caused prices to plummet in 2006. Moreover, increased Canadian shipments of *C. opilio* to the United States and record catches of West Coast Dungeness crab added to the downward price pressure. In early 2007, Bering Sea *C. opilio* prices rebounded, stimulated in part by strong demand from U.S. and Japanese retail buyers. Bering Sea *C. opilio* have prices remained high in 2008. The 2005-2006 *C. bairdi* fishery was the first since 1996, causing some uncertainty over whether *C. bairdi* would draw a substantial premium over *C. opilio*, as it had historically. In the first few years of the program, *C. bairdi* prices have generally tracked closely with *C. opilio* prices, with *C. bairdi* drawing a price similar to large *C. opilio* (Sackton, 2007c).

Table 10 and Table 11 show ex vessel and first wholesale prices of Alaskan red king crab, *C. opilio*, golden king crab, and *C. bairdi* from 2001 to 2007. Ex vessel prices were obtained from Commercial Operator's Annual Reports. In the COAR database, the location of the processor that purchased the fish is recorded by ADFG regulatory area, but harvest location is not reported. Crab harvested in one regulatory area may be sold to a processor in another area. Consequently, data for the Aleutian Islands golden king crab and Bristol Bay red king crab fisheries include deliveries from the Norton Sound red king crab fishery and relatively small fisheries in southeast Alaska. In addition, *C. bairdi* prices include prices for crab from fisheries other than the Bering Sea. In the years prior to 2005, *C. bairdi* prices include no prices from the Bering Sea fishery, as that fishery was closed for several years leading up to program implementation. The Bering Sea *C. opilio* fishery is the only *C. opilio* fishery in the state; therefore, those data are solely from the Bering Sea fishery. The tables display only first wholesale prices for shellfish sections, as shellfish sections represent a large majority of the production from program fisheries (both historically and currently) and generally provide a good overall measure of the change in markets for crab.

Table 10 Ex vessel prices by species, 2001 - 2006 (dollars/pound).

Year	Golden king crab	*C. opilio*	Red king crab	*C. bairdi*
2001	3.37	1.55	4.83	2.16*
2002	3.46	1.39	6.21	2.20*
2003	3.62	1.85	5.14	2.45*
2004	3.15	2.07	4.69	2.59*
2005	2.89	1.81	4.50	1.85
2006	2.18	1.15	3.85	1.52
2007	2.43	1.74	4.42	1.82

* Bering Sea *C. bairdi* fishery was not open and did not contribute to this price.

Source: ADFG Commerical Operators Annual Reports

Table 11 First wholesale prices of crab species (2001-2006).

Species	2000	2001	2002	2003	2004	2005	2006	2007
Golden king crab	7.20	6.95	7.58	7.89	6.02	6.00	4.35	5.55
Red king crab	9.11	8.93	11.58	9.82	9.25	8.52	7.49	8.60
C. opilio	4.16	3.73	3.58	4.40	4.79	3.85	2.89	3.83
C. bairdi	5.83	5.12	5.22	6.13	6.60	4.37	3.94	4.43

Source: COAR data

Prices are for shellfish sections only.

2.3.5 Communities

Over time several communities have benefited from landings and processing activity in the crab fisheries. The rationalization program attempts to protect communities from some of the potential redistribution of landings that might arise under the program by providing community protections at a few different levels. First, communities in a region are collectively protected by the regionalization of QS, PQS, Class A IFQ, and IPQ. Yet, since the protection of regionalization applies at a regional level, groups of communities (rather than individual communities) are protected. Although this protection does not directly extend protection to any individual community, since the regional landing requirements are without exception, the protection granted by the provision is relatively strong. The protection to communities is the greatest in regions with few available processing locations and little competition. In fisheries with North/South regionalization, St. Paul and St. George, collectively, are perceived to receive significant protection from North regionalized shares. In the Western Aleutian Islands golden king crab fishery, Adak and Atka, collectively, are perceived to receive substantial protection from regionalization.

In addition to regional protections, in the first two years of the program communities with substantial processing history were protected by the 'cooling off' provision, which prevent the processing of most IPQ landings from moving from the community of historic processing (the community of origin). In addition, communities with substantial processing history also have the opportunity to designate an entity that is entitled to hold rights of first refusal on certain transfers of IPQ and PQS for use outside the community of origin (see Table 7). The provision defines certain transfers that are exempt from the rights (including intra-company transfers), as well as criteria for determining whether a transfer is intended to move processing from the community of origin. In addition, if a PQS holder has used the yielded IPQ outside the community for a period of three consecutive years, the right lapses. Based on historical landings, the distribution of rights of first refusal varies across fisheries and regions.

The limitations of the 'cooling off' provision prevented the movement of most IPQ subject to the right of first refusal from the community of origin in the first two years of the program. As a result, only in the third year of the program was any notable portion of the IPQ permitted to be moved and few rights of first refusal on PQS are believed to have lapsed. Most notably, the right is believed to have lapsed with respect to shares arising from historic processing in St. George. The St. George harbor and its entrance were damaged by a storm in 2004. In the first two years of the program, that damage was found to have prevented processing in St. George. As a consequence, the right of first refusal is believed to have lapsed on shares for which the Aleutian Pribilof Island Community Development Association (APICDA) holds rights of first refusal on behalf of St. George. APICDA representatives, however, have testified that holders of PQS originally subject to these rights of first refusal have entered agreements that APICDA believes adequately protect St. George interests.

Although harvest fleets will be affected by a Council decision concerning this action, the primary community interest will arise from any redirection of landings. This redirection of landings will affect crab processing activity, tax receipts, and support businesses. To understand potential differences of these affects across communities, this section briefly profiles seven Alaska communities with direct links to the Bering Sea and Aleutian Islands crab fishery. These communities vary in their geographic relation to the fishery; their historical relationship to the fishery; and the nature of their contemporary engagement with the fishery. These profiles are largely summarized from the Social Impact Assessment of the Crab Rationalization Three Year Review (EDAW/NPFMC, 2008).

Unalaska

Commercial fishing and seafood processing play a significant role in the economic success of Unalaska. The community is home to the greatest concentration of processing and catcher vessel landings activity of any Alaska community. As a result, commercial fishing and seafood processing provide a significant number of jobs and income to the community.

Crab has the second highest wholesale value of processing in Dutch Harbor, behind pollock which has accounted for a substantial majority of total wholesale value of processing in Dutch Harbor in recent years. Dutch Harbor based processors received a substantial share of the processor share allocations in most crab fisheries under the rationalization program. These shares are subject to rights of first refusal of the Dutch Harbor community entity. These shares are unlikely to migrate out of the community because crab processing at most facilities plays an important part in an integrated operation that serves several fisheries.

Unlike many of the crab ports in the region, Unalaska also has extensive support services for the Bering Sea and Aleutian Island fisheries. Services provided in Unalaska can support all range of services for any vessel class in the pollock, crab, and other groundfish fisheries. As a result, the support services are heavily dependent upon the success of the groundfish and crab fisheries. To some extent, the fleet services also contribute to the diversification of the Unalaska economy which insulates the community from negative changes in individual fisheries.

In summary, the community of Unalaska is more economical diversified than other crab ports in the region, but is still heavily dependent on the groundfish and crab fisheries in the North Pacific. Crab processing has played a substantial role in the economic success of the community.

King Cove

Once heavily dependent upon salmon, the community of King Cove is now more diversified, processing groundfish and crab from the Gulf of Alaska and Bering Sea and Aleutian Islands. The community is

home to several large crab vessels, and a shore based processor. The plant processes salmon, crab, halibut, and groundfish. Approximately 80 percent of King Cove's work force is employed full time in the commercial fishing industry. Even so, this likely underestimates the dependency of the local economy on commercial fishing, since much of the remainder of the population supports commercial fishing indirectly.

For several years now, the amount of crab and the total value of the crab processed in King Cove have been declining, while groundfish has increased. The decline in crab production was due primarily to a decline in quotas related to reduced stocks. In addition, American Fisheries Act (AFA) sideboards limit processing of Bering Sea and Aleutian Islands crab at the local shore plant. Under the rationalization program, crab processing has remained an important component of the diversified processing undertaken at the shore plant in King Cove.

While only one locally owned vessel fishes in the crab fishery, the community is still heavily dependent Bering Sea and Aleutian Islands crab fishing for employment and income. Rapid fleet contraction under the rationalization program, particularly in the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries, has affected King Cove. Between 10 and 15 crew jobs are estimated to have been lost in each of these two fisheries. Fleet contraction is also believed to have caused a drop in demand for harbor and moorage services and goods and services from fishery support businesses in King Cove. Attribution of these effects on the change in crab management is difficult, since data isolating spending of crab vessels and fishery participants from spending associated with other fishery and non-fishery activities are not available (see Lowe, et al., 2006).

Akutan

Similar to King Cove and Unalaska, the economy of Akutan is heavily dependent upon the groundfish and crab fisheries in the Gulf of Alaska and Bering Sea and Aleutian Islands. The community is home to one of the largest shore based seafood processing plants in the area, as well as a floating processor. The community also provides some limited support services to the fishing community. In addition, unlike King Cove and Unalaska, Akutan is a Community Development Quota (CDQ) community.

The vast majority of catch landed in Akutan comes from vessels based outside of the community. Most of those vessels focus primarily on pollock, Pacific cod, and crab. The shore processor is a multi-species plant, processing primarily pollock, Pacific cod, and crab. Given that the plant is an AFA-qualified plant with an associated pollock cooperative, pollock is the primary species in terms of labor requirements and economic value. However, the shore plant also accounts for a significant amount of the regional crab processing and provides for a significant amount of the processing value. As with plants in Dutch Harbor and King Cove, crab has remained an important part of a diverse operation at the shore plant in Akutan since implementation of the rationalization program.

A small number of Akutan residents – estimated at fewer than 5 currently – do participate in the crab fishing industry as crew members. The community is also an eligible CDQ community, which benefits from the allocation of Bering Sea and Aleutian Islands groundfish and crab TAC to the CDQ program. APICDA, which represents the community of Akutan and 5 other communities, has participated in the crab fishery through purchasing partial ownership in two crab harvest vessels, the Golden Dawn and the Farwest Leader, and has recently invested in crab processing shares. In addition, APICDA also has significant investments in both harvesting and processing sectors of the Bering Sea and Aleutian Islands groundfish fisheries.

Kodiak

Although the economy of Kodiak is more diversified compared to King Cove and Akutan, fishing and processing are a significant players in the communities economy. In recent years, however, Bering Sea and Aleutian Islands crab has been a minor component of seafood processing value in recent years. Species that typically contribute more than 10 percent of the total value are Pacific cod, pollock, and salmon. The processors located in Kodiak provide a large amount of diversity in size, volume, and species processed. The products produced by the shore plants range from large quantity canning of salmon to fresh and fresh-frozen products.

Finally, Kodiak provides a wide range of support service business that caters in whole or in part to the commercial fishing industry. As a result, the support services are heavily dependent upon the success of the different fisheries. To some extent, the fleet services also contribute to the diversification of the Kodiak economy, which insulates the community from negative changes in individual fisheries.

The rapid fleet contraction under the crab rationalization program is also thought to have affected Kodiak. Kodiak crew are estimated to have lost 125 positions in the Bristol Bay red king crab and approximately 60 positions in the Bering Sea snow crab fishery in the first year of the program. Studies of the effects of the rationalization program on Kodiak under the program's have found anecdotal evidence suggesting declines in spending at some businesses, but evidence of a broad decline in total local spending could not be identified. The study cautioned that effects may lag, so these findings should be viewed as preliminary (Knapp, 2006 and EDAW/NPFMC 2008).

St. Paul

Unlike King Cove, Akutan, Unalaska, or Kodiak, St. Paul is primarily dependent upon the processing of snow crab harvested in the North Pacific. Since 1992, the local shoreplant on St. Paul has been the primary processor for crab. A number of floating processors have also frequented the area.

During 1991 to 2000, snow crab accounted for 74 to 100 percent of the relevant BSAI crab processing in the northern region. During this same period, the northern region accounted for approximately 31 percent of the total processing value of the fishery. For the period 1995-1999, the northern region accounted for 43 percent of the total processing value of the fishery. The sharp decline in the GHL from 1999 to 2000 resulted in a drop in the harvest and drop in the percentage of the total snow crab processed in the northern region, from 49 percent in 1999 to 18 percent in 2000. Overall, the decline in snow crab stocks during that period had a disproportional effect on the community of St. Paul compared to other communities that process snow crab.

The shift away from St. Paul to other communities during this downturn in snow crab stock is estimated to be due to the slow down in fishing pressure during that period. Data from interviews with harvesters suggest that shorter seasons (and/or lower harvest levels), among other factors, resulted in a higher proportion of crab being taken further away from St. Paul and the grounds to plants in the South region for processing. St. Paul is a primary beneficiary of the North/South regional distribution of shares in the rationalization program. This limitation on landings should ensure that a substantial portion of the processing in the Bering Sea *C. opilio* fishery is undertaken in St. Paul. In the long run, it is possible that St. George could obtain a greater share of North landings, but most participants currently prefer St. Paul's harbor facilities to those available in St. George.

St. George

As with St. Paul, St. George has depended primarily on processing of crab from the Bering Sea *C. opilio* fishery. Processing of crab in St. George has been exclusively by floating processors. Yet, since 2000,

little or no crab processing has taken place in St. George. Prior to the rationalization program, the loss of processing activity is primarily attributable to the decline in crab stocks. Under the rationalization program, no processing has returned to St. George. Processing shares were subject to the 'cooling off' provision requiring the processing of landings with those shares to be undertaken in St. George. Yet, harbor breakwater damage caused by a storm has prevented deliveries to the community during the first two years of the program. Although processing has left the community, its CDQ group, APICDA, has reached agreements with the holders of all PQS subject to St. George based rights of first refusal that it believes adequately protect St. George interests. When (or whether) these arrangements will result in the return of crab landings to the community is not known.

Adak

The community of Adak, until recently, had no direct or indirect ties to commercial fishing because the island was home to a Naval Air Station since the 1940s. However, the U.S. Navy closed the air station in the late 1990s, opening the island to new local residents. As a result, efforts are being made to transform the island into a commercial fishing center in the Western Aleutians area of the Bering Sea.

Most commercial fishing deliveries to Adak are to a single processing plant. Cod, crab, halibut, and black cod are the primary species. Adak is in the process of developing support services capabilities for the commercial fishing fleet. The port facilities in Adak can support a wide variety of large vessels. At-sea processors have used the port for transfer of product in addition to a supply stop.

A few aspects of the rationalization program are structured specifically to support Adak. First, ten percent of the TAC in the Western Aleutian Islands golden king crab fishery is allocated to a community entity representing Adak. Adak is also an intended beneficiary of a regional designation on one-half of the shares in the Western Aleutian Islands golden king crab fishery, which require crab harvested with those shares to be processed west of 174º West longitude. Currently, Adak is the only community in the West region with a shore-based crab processing plant. Processing of the West region allocation in Adak is not a certainty, since the rules in the fishery permit processing of those landings in other communities and on floating processors.

Atka

The community of Atka is the western most fishing community in the Aleutian chain. The economy of Atka is primarily based on subsistence, with support from commercial fishing. The community has a small shore-based processor, which takes delivery of halibut and sablefish, mostly from the local fleet. Although Adak was intended as the primary beneficiary of regionalization of the Western Aleutian Islands golden king crab fishery in the crab program, the Council was aware that Atka would be positioned to benefit from the regionalization of that fishery, either through processing at the local shore plant (if the plant develops adequate processing capacity) or through processing on floating processors within the community's boundaries. In addition, APICDA, Atka's CDQ group, has acquired interests in QS and PQS in several fisheries, including the Western Aleutian Islands golden king crab fishery, which could be use to introduce crab processing to the community.

2.3.6 Deliveries in the fisheries

Prior to the rationalization program, seasons in all of the program fisheries, except the Western Aleutian Islands golden king crab fishery, were typically less than one month long. In the Bristol Bay red king crab fishery - which drew the most participants - seasons lasted less than one week in the years immediately preceding implementation of the rationalization program. Both the Bering Sea *C. opilio* and the Eastern Aleutian Islands golden king crab fisheries lasted for less than one month, both of which had progressively shorter seasons leading up to implementation of the program. Although the Western

Aleutian Islands golden king crab fishery lasted several months, its seasons also shortened progressively leading up to implementation of the program.

Table 12 Season openings and closings in four years prior to August 2005 implementation of the rationalization program.

Fishery	Season	Season opening	Season closing
Bristol Bay red king crab	2001	October 15	October 18
	2002		October 18
	2003		October 20
	2004		October 18
Bering Sea *C. opilio*	2002	January 15	February 8
	2003		January 25
	2004		January 23
	2005		January 20
Eastern Aleutian Islands golden king crab	2001-2002	August 15	September 10
	2002-2003		September 7
	2003-2004		September 8
	2004-2005		August 29
Western Aleutian Islands golden king crab	2001-2002	August 15	March 30
	2002-2003		March 8
	2003-2004		February 2
	2004-2005		January 3

Source: ADFG Annual Management Report.

With very abbreviated seasons in the prerationalization fisheries, harvesters faced relatively fewer impediments to deliveries that might arise to the level of an unforeseeable event justifying the exemption as proposed by this action. Ice conditions, however, occasionally did impede deliveries, particularly in the Bering Sea *C. opilio* fishery that is prosecuted after the New Year. The extent of any impediment is uncertain, since under the limited entry program, participants in the fishery had the flexibility to deliver in any location of their choice.

The allocation of exclusive harvest shares allowed the seasons in the fisheries to be extended substantially. Currently, season limits are imposed for biological reasons. With this new latitude to schedule harvest activity, participants have dispersed catch substantially across the seasons (see Table 13).[7] For example, the 2005-2006 Bristol Bay red king crab season was prosecuted towards the 18.3 million pound TAC over the 3-month period following the October 15, 2005 season opening date; the first delivery was made on October 20, 2005 and the last delivery was made on the day after the regulatory closure date of January 15, 2006. In all of the fisheries, deliveries have been distributed over a period of several months; however, deliveries remain most concentrated in the Bristol Bay red king crab fishery. That season is only four months, substantially shorter than the season in other fisheries, and markets tend to be strongest at the year's end leading up to the holidays.

[7] The following tables concerning deliveries include only catcher vessel activity.

Table 13 Post-rationalization pattern of deliveries by fishery.

Fishery	Season	Season opening	Date of first delivery	Week of most deliveries (in pounds)		Date of last delivery	Season closing
				Weekending date	Percent of quota delivered		
Bristol Bay red king crab	2005-2006	October 15	October 20	November 5	28.6	January 16	January 15
	2006-2007		October 19	November 5	44.0	November 28	
	2007-2008		October 18	November 5	31.1	January 15	
Bering Sea *C. opilio*	2005-2006	October 15	October 27	February 4	11.0	May 27	May 15 (east) May 31 (west)*
	2006-2007		November 7	February 25	11.1	May 5	
	2007-2008		November 18	February 25	13.0	May 10	
Eastern Aleutian Islands golden king crab	2005-2006	August 15	August 30	September 19	14.1	March 28	May 15
	2006-2007		August 31	**	**	January 13	
	2007-2008		August 30	**	**	February 9	
Eastern Bering Sea *C. bairdi*	2006-2007	October 15	October 23	March 11	18.1	March 27	March 31
	2007-2008		October 20	March 24	7.0	April 2	
Western Aleutian Islands golden king crab	2005-2006	August 15	September 6	October 24	11.4	March 25	May 15
	2006-2007		September 10	**	**	May 6	
	2007-2008		September 14	**	**	May 21	
Western Bering Sea *C. bairdi*	2005-2006	October 15	October 27	March 25	7.9	May 3	March 31
	2006-2007		November 4	March 11	16.3	April 5	
	2007-2008		November 16	March 3	5.5	March 31	

Source: RAM IFQ landings data

* The boundary between the Eastern and Western Subdistricts is 173° W longitude.

** withheld for confidentiality.

To date, two conditions may have created impediments to deliveries in the fisheries. First, despite the limitation of the 'cooling off' provision, in the first two years of the program, no processing occurred in the City of St. George. In the first two years (when IPQ were subject to the cooling off provision), PQS holders petitioned NOAA Fisheries for an exemption from the limitation of the 'cooling off' period, claiming unavoidable circumstances prevented their processing of shares in St. George. In both years, NOAA Fisheries granted the exemption concluding that that storm damage to the breakwater at the harbor in St. George prevented safe entry of processing vessels to the St. George harbor. With no other location available to safely process in St. George, NOAA Fisheries granted the waiver of the 'cooling off' requirement. In the spring of 2008, repairs to the harbor entrance were completed in St. George. The repairs restored the harbor entrance to its pre-storm condition. Whether the harbor itself is safe and in its pre-storm condition is uncertain and may be disputed.

Ice conditions are the second obstacle to deliveries in recent years. In most years, ice in the North region makes contact with or surrounds St. Paul Island. In some years, ice has also surrounded St. George Island (see Table 14). Depending on the severity of conditions, this ice may prevent deliveries of catch into St. Paul and St. George. Prior to rationalization, harvesters with catch on board could elect to make deliveries to processors in the South, who are unaffected by the ice. Under the rationalization program, deliveries to North locations required by North region IFQ may be prevented by the ice. Whether a delivery is prevented may depending on the circumstances, including spatial distribution and type of ice, the specific vessel, the location of the vessel relative to the islands, the amount and condition of crab on board, the delivery restrictions on available IFQ, and any factors affecting the willingness of the captain to wait for conditions to change. Historical data suggest that in the first three years of the program, some deliveries may have been prevented by ice conditions. Ice abutted St. Paul in each of the first three years and abutted St. George in two of the first three years. During all but two weeks that ice abutted the islands, North deliveries were made. No deliveries in the North region occurred in the 13th and 14th week of 2008, although deliveries in the North occurred in the weeks both before and after the 13th and 14th weeks. Whether deliveries were prevented by the ice conditions could also be disputed, since fishing appears to have almost stopped during this period. During a four week midseason period, few deliveries were made in the Bering Sea *C. opilio* fishery (see), with deliveries reaching a midseason low in the 25th week, when three vessels delivered fewer than 50,000 pounds total (see Figure 1 and Figure 2). This decline in

landings was followed by a slight increase, suggesting that fishing was delayed because of ice conditions on the grounds (in addition to ice conditions that may have prevented deliveries into St. Paul).

Table 14 St. Paul and St. George ice conditions (1997-2008) and crab landings in the North region (2005-6 through 2007-8).

Season	Month	December		January				February				March				April				May			
	Week	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1997*	Ice conditions																						
1997-1998																							
1998-1999																							
1999-2000																							
2000-2001																							
2001-2002																							
2002-2003																							
2003-2004																							
2004-2005																							
2005-2006	North landings				2	8	26	16	12	7	10	7	9	9	10	15	7						
	Ice conditions																						
2006-2007	North landings								2	4	5	4	5	7	12	18	13	16	2				
	Ice conditions																						
2007-2008	North landings				1	11	15	20	18	14	23	14	14	9	4			5	8	13	3		
	Ice conditions																						

Note: North landings includes all North region Class A IFQ landings and Class B and C share IFQ landings in St. Paul.
Denotes ice abutting St. Paul Island during the week.
Denotes ice abutting St. Paul Island and St. George Island during the week.
* Includes only 1997 conditions.
Sources: RAM landings data (2005-6 through 2007-8) and National Ice Center Ice Charts (1997-2008).

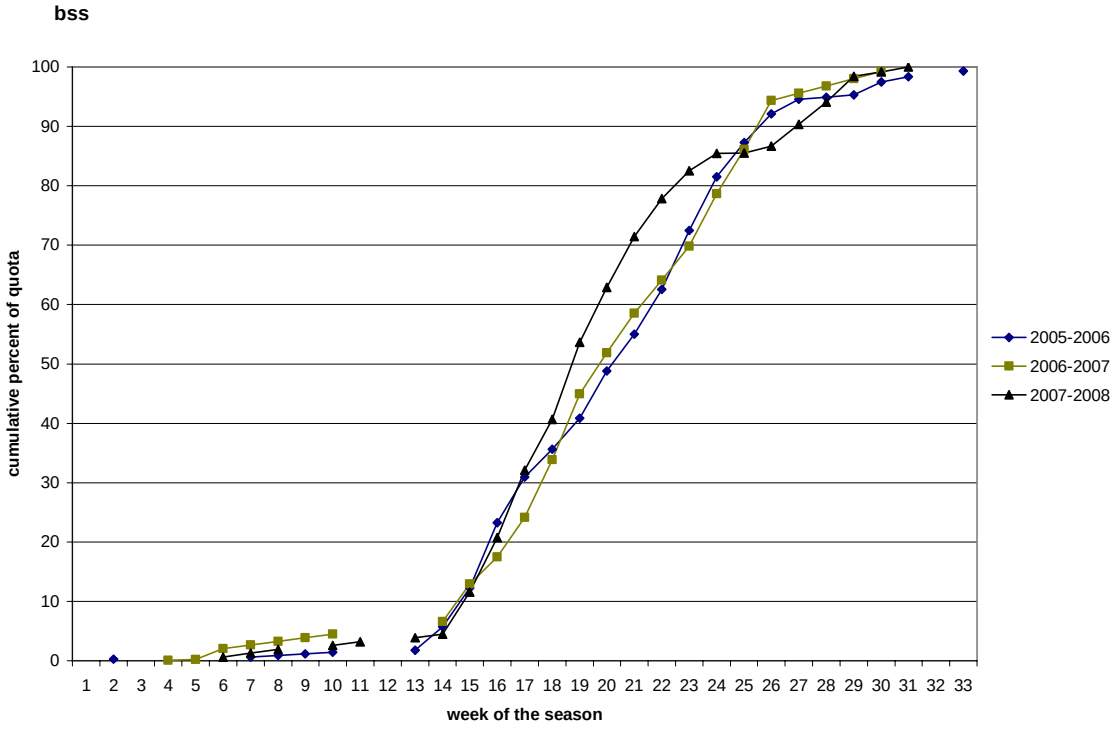

Figure 1 Post-rationalization cumulative deliveries in the Bering Sea *C. opilio* fishery.

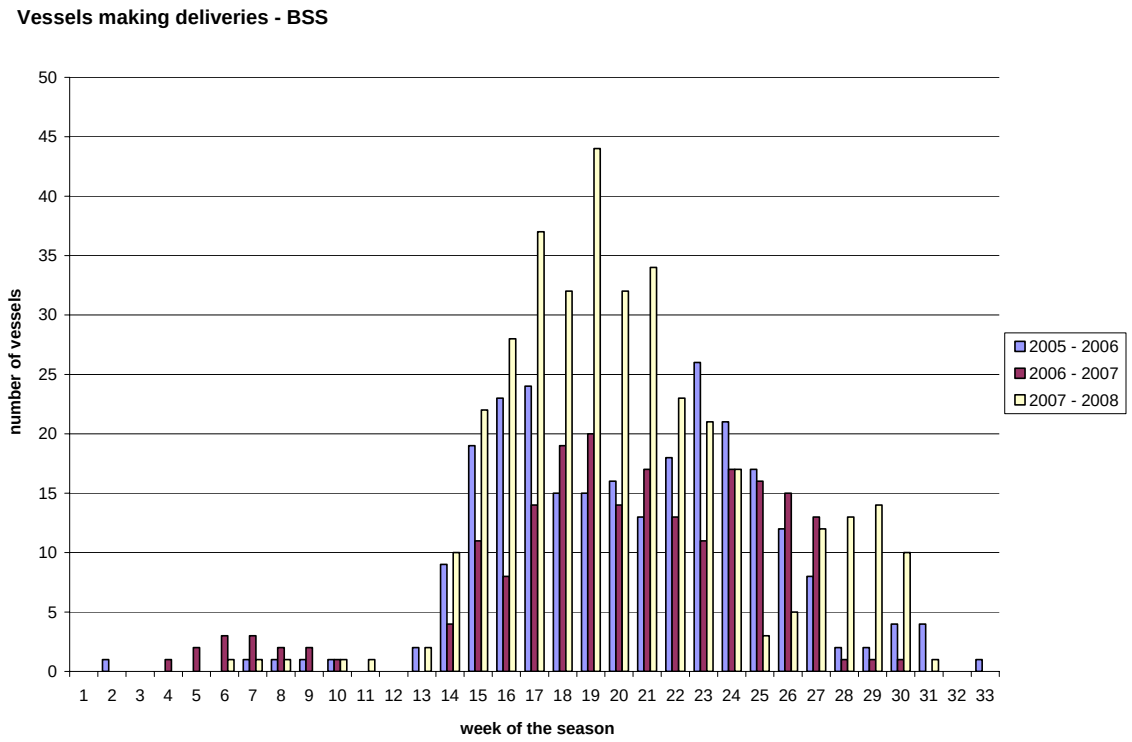

Figure 2 Vessels making deliveries by week in the Bering Sea *C. opilio* fishery (2005-2006 through 2007-2008).

2.4 Analysis of alternatives

This section analyzes the effects of the alternatives. For clarity, the analysis first examines the operation of the different alternatives and options under consideration. The analysis then goes on to examine the effects of the alternatives on different stakeholders (including harvesters, processors, and affected communities) and management and enforcement.

In each case, the analysis of alternatives first examines general effects. The analysis then goes on to consider how effects may differ across regions. Although general observations can be made concerning operation of the alternatives, some effects must be considered on a regional basis, since the amounts of crab that are subject to landing requirements and available processing capacity (or capacity that may be made available) differs across regions. These differences affect not only the potential for an impediment to deliveries, but also the potential effects of an impediment and the potential to mitigate effects.

2.4.1 Operation of the status quo

Under the status quo, holders of Class A IFQ and IPQ must comply with regional landing and processing requirements, respectively. If an event occurs that prevents compliance with these requirements, the IFQ and IPQ holders cannot obtain an exemption from the regional requirements, but must postpone use of their shares until the condition preventing delivery is removed or an alternative delivery arrangement

compliant with the regional requirement is made. Alternative arrangements could be either an alternative location within the region or use of alternative IFQ that allows delivery outside of the region.[8]

In general, an unanticipated event could prevent one or more scheduled deliveries after crab are harvested requiring harvesters to make some other arrangements for the deliveries. In some cases, this may be addressed through coordination of the deliveries with other processors in the region or the use of substitute IFQ for delivery in another region. In the worst cases, it is possible that no processor might be available to take the deliveries in the region and no substitute IFQ allowing deliveries elsewhere are available. In these instances, either deadloss could be exacerbated while the harvester waits for the circumstance to pass (or to be addressed) or crab could be returned to the water (with an indeterminate amount of associated handling mortality). Although these circumstances could occur, it may be possible to avoid either of these outcomes.

The fleet could organize its deliveries so that IFQ are reserved to address a contingency preventing delivery required by a regional designation. With most IFQ held by cooperatives, it is possible that a cooperative may be able to substitute IFQ that allow deliveries outside of the region, when a regional delivery is prevented. In addition, with fewer than 20 cooperatives participating in any fishery, it is possible that a harvester without IFQ to support deliveries in another region could acquire those IFQ from another cooperative. Any redirected deliveries will require some cooperation from at least one processor; either the IPQ holder or another processor will be required to accommodate the delivery at a different plant. In some instances, this accommodation could require use of substitute IPQ. To date, participants in the fisheries have made these accommodations. In the first three years of the program, no IFQ are believed to have been left unharvested and no cases of extreme deadloss or discards are known to have occurred because of events preventing compliance with regional landing requirements, despite the occurrence of several unanticipated events that delayed or complicated attempts to deliver catches. These experiences suggest that even under the status quo, events that prevent or delay deliveries can be addressed with adaptive industry responses.

North region

Processing shares and catcher vessel owner shares in four fisheries are regionalized for landing and processing in the North region. In excess of 65 percent of these shares in the St. Mattthew Island blue king crab and Pribilof red and blue king crab fisheries are subject to the North region landing requirement; approximately 47 percent of these shares in the Bering Sea *C. opilio* fishery are subject to the North region landing requirement; and approximately 3 percent of these shares in the Bristol Bay red king crab fishery are subject to the North region landing requirement.

In the North region, processing has historically occurred only in and around St. Paul Island and in St. George Island harbor. Processing occurred in St. Paul harbor in the first and third years of the program. In addition, processing occurred at St. Paul, but some of that processing occurred outside of the harbor on floating processors in the second year. No processing has taken place in St. George since 1999. Prior to the rationalization program, St. George processing ended with the decline in Bering Sea *C. opilio* TACs and the ensuing contraction of the processing sector. A storm that damaged the St. George harbor in 2004 prevented processing from returning to St. George on implementation of the program, as would have been required for the first two years under the 'cooling off' requirement. Since that time, damage to the St. George harbor entrance has been repaired, but some participants contend that the harbor cannot be accessed safely.

[8] It should be noted that under the proposed amendment, an event that qualifies for the exemption must be unavoidable and unforeseen or reasonably unforeseeable. Unavailability of processing capacity would not qualify as for the exemption given these requirements and is not discussed in this analysis.

The primary impediment to deliveries in the North region is ice. The timing of ice conditions that might prevent deliveries is relatively unpredictable, but ice typically occurs on or after the first of the year. Consequently, the Bering Sea *C. opilio* fishery - the only fishery prosecuted after the first of the year - is the only fishery in which North deliveries are likely to be affected by ice. Ice conditions are also spatially variable and can change quickly with changes in winds.

In the North region, processors may be expected to operate in (or near) one of the two Pribilof Island communities. If processors are operating at both islands, it is possible that a delivery to one that is prevented could be made at the other; however, it is possible (at least in the near future) that processing might be occurring at only one location. So, ice conditions that prevent deliveries may not be avoidable by choosing an alternative delivery location in the region.

The extent to which ice conditions have prevented and might prevent future deliveries is debated by participants. Clearly, ice conditions have occurred that have prevented deliveries into St. Paul for periods of days. Yet, these circumstances have not prevented compliance with regional landing requirements. Instead participants in the fishery have made accommodations by delaying offloads or using substitute IFQ (and possibly IPQ) to allow delivery outside of the North region. Whether ice conditions might prevent compliance in the future could be questioned.

Although ice conditions are the most apparent impediment to North deliveries, it is also possible that other circumstances could prevent deliveries. For example, a fire disabled a floating processor in the second year of the program, preventing deliveries to that facility for a period of time. In addition, storm damage to the St. George harbor prevented deliveries to that location for a period of years. Despite these circumstances, participants have been able to shift deliveries and delay fishing to comply with the regional landing requirements. A destructive event that disables facilities for an extended period could prevent deliveries to that location. Whether such an event would prevent deliveries in the region in its entirety would depend on the scope of the event and the availability of alternative delivery locations. Inaccessibility of the St. George harbor recently forced all North region deliveries into St. Paul. An event making St. Paul-based processors inaccessible might have prevented all deliveries in the region. Under the status quo, no exemption from the North delivery requirement would be made. Consequently, participants would need to find an alternative processing location in the North region to support landings of North region IFQ. The number of floating processors used in the fisheries historically suggest that it is possible that an alternative location in the North region could be found. The limited number of safe processing locations, however, could present a challenge. In addition, it is possible that deliveries would need to be delayed while a substitute platform undergoes any necessary reconfiguration and is positioned. Depending on the timing of the event, conditions in the fishery (including ice conditions), and the availability of platforms, it is possible that a delay could interfere with full prosecution of the North IFQ in the fishery.

The potential for circumstances to prevent full prosecution of the fishery depend greatly on the timing and severity of the event, the extent of remaining harvests, and the response of industry to the event. If an event occurs late in a season and participants have delayed harvesting allocations, it is more likely that the harvest of the TAC would be prevented by facilities being inaccessible or inoperable because of an unanticipated event. Catch histories of the fleet in the first three years of the program suggest that the fleet can exert substantial catching power, when it is geared up to do so. In at least one week of each of the first three years of the program, deliveries of the Bering Sea *C. opilio* fleet exceeded 10 percent of the TAC. When considering that approximately 40 percent of the annual IFQ (including Class B and C share IFQ) in the Bering Sea *C. opilio* fishery are subject to North landing requirements, these catch rates suggest

(that at current TACs) the entire North region share may be harvested in approximately one month. Catch rates, however, can vary substantially with distribution of stocks. Also, timing and circumstances surrounding an event that prevents operations will also affect the ability of industry to respond. A late season event when a relatively large share of the North IFQ unharvested would pose a substantially greater challenge than the same event earlier in the season or with a smaller share of the North IFQ unharvested. In any case, the ability to make substantial deliveries after an event will require both fleet and processors to be prepared to respond to the event. Experiences from the first three years suggest that industry will respond to these events to fully harvest of available IFQ. So, although the potential for an event to prevent full harvest of the North IFQ is not known, it is believed to be minimal.[9]

South region

Processing shares and catcher vessel owner shares in six fisheries are regionalized for landing and processing in the South region. In excess of 97 percent of these shares in the Eastern Aleutian Island golden king crab, the Western Aleutian Island red king crab, and the Bristol Bay red king crab fisheries are subject to the South region landing requirement; slightly more than 50 percent of these shares in the Bering Sea *C. opilio* fishery are subject to the South region landing requirement; between 20 and 30 percent of these shares in the Pribilof red and blue king crab and the St. Matthew Island blue king crab fisheries are subject to the South region landing requirement.

Ice conditions are not believed to have ever interfered with deliveries of crab in the South region of the crab fisheries. Consequently, only other events should be considered as potentially preventing deliveries. Accidents or extreme environmental hazards (such as earthquake damage) have been mentioned as possible events that could prevent deliveries in the South. Whether such an event could cause disruption that would prevent deliveries in the South (requiring instead an out of region delivery to a North location) is uncertain.

Several processors receive deliveries in several locations in the South region, with deliveries in the two major fisheries concentrated in Dutch Harbor, Akutan, and King Cove. In addition, a substantial portion of the available IPQ has been used on floating processors, allowing for mobility in the event deliveries in a specific location are prevented. The variety of locations that support processing in the fisheries and the mobility of participating floating processors can be used to redirect deliveries, if an event should prevent deliveries in the intended location. So, despite the large share of IPQ that are subject to South region delivery requirements, the potential for an event to prevent deliveries in the South region in any fishery is believed to be very limited.

West region

Only one fishery has catcher vessel owner IFQ and IPQ subject to West region landing requirements. Fifty percent of these shares in the Western Aleutian Islands golden king crab fishery are subject to the West region landing requirement.

As in the South region, ice conditions have not historically prevented deliveries of crab into West region locations. As a result, the only unforeseeable events likely to prevent West region deliveries are accidents

[9] The amendment to exempt of custom processed North region IPQ from the processing plant's use cap, allowing for greater consolidation of IPQ processing could reduce the potential for an event to prevent delivery of all available North IFQ, by allowing additional flexibility. Yet, if processors use the provision to eliminate available capacity that could enter the fishery, if an unanticipated event prevents processing on the available platforms, it is possible that the provision could reduce the ability of participants to address contingencies. That amendment is currently pending approval by the Secretary of Commerce.

and extreme events. In the West region, floating processors could be made available to allow for deliveries in the event the anticipated processor is incapacitated.

To date, all processing of West region IPQ has occurred in the plant in Adak. Floating processors could be used in the region and Aleutian Pribilof Island Community Development Association representatives have expressed interest in introducing crab processing to Atka, with floating processors initially, possibly followed by the addition of a crab line to the Atka shore plant. Any such addition of capacity in the region would not only create competition for West region landings (in part, through custom processing arrangements) and also create an additional outlet for deliveries should an unforeseeable event prevent deliveries to one of the facilities. Although catch and delivery data in this fishery cannot be released because of confidentiality limitations, with a relatively small TAC in the fishery (less than 3 million pounds total) the potential for an unexpected circumstance to prevent full harvest of the TAC is very limited.

2.4.2 Operation of the exemption alternative

The alternative to establish an exemption would allow an IFQ holder who has reached an agreement with the associated IPQ holder and a regional representative entity to delivery a landing outside of the designated region on filing an affidavit attesting to the occurrence of an unforeseeable circumstance that prevents compliance with the regional landing requirement. Although relatively straightforward on its face, several aspects of the alternative are undecided. These aspects and their effects on the operation of the alternative are discussed in this section. The section also includes a discussion of the different affects of the alternative across the different designated regions.

Circumstances qualifying for the exemption

Under this alternative, an IFQ holder and the matched IPQ holder would be granted an exemption only if an unavoidable circumstance prevents compliance with the regional landing requirements. The specific provision included in this alternative by the Council was modeled after the exemption from the 'cooling off' landing requirements. An option is included for consideration that would allow the parties to more specifically define the exemption in the contract used to administer the exemption. The specific definition and the option for including more specificity in the contract are:

> **Qualifying circumstance:** An unavoidable circumstance that prevents the delivery or processing of crab in a region as required by regionally designated IFQ and matched IPQ will qualify for the exemption from regional landing requirements. To qualify for the exemption a circumstance must: a) be unavoidable, b) be unique to the IFQ and/or IPQ holder, c) be unforeseen or reasonably unforeseeable, and d) have actually occurred.[10]
>
> > **Option**: Additional specificity of the exemption and its term will be included in any contract between the IFQ holder, the holder of matched IPQ and the entity representing region/community interests.

Under this qualifying circumstance definition, an exemption may be granted, if an IFQ holder is prevented from complying with the regional delivery requirement by an unforeseen, unavoidable circumstance. Since the provision was applied to IPQ subject to the 'cooling off' provision, some experience interpreting the provision exists. Under the 'cooling off' provision, the definition was deemed to apply to unrepaired storm damage to the St. George harbor entrance that prevented deliveries to that location. The damage and its repair was found to be beyond the control of the IPQ holder (the party bound by the 'cooling off' requirement). Given this definition, it is likely that the provision would apply to

[10] These criteria are taken from the exemption to 'cooling off' provision landing requirements that applied on a community basis to some IPQ in the first two years of the program (see 50 CFR 680.42(b)(4)(ii)).

natural events that prevent deliveries in a required region. In finding qualification for the exemption from the 'cooling off' requirement, it was noted that the lack of availability of alternative locations for processing was pivotal (see In re Appeal of Aleutian Pribilof Island Community Development Association v. Snopac Products, Inc. (May 2, 2008)). Given this interpretation, the exemption from regional landing requirements may not be granted, if other compliant delivery locations with available processing capacity are accessible.

The proposed option would allow the parties to the contract latitude to more specifically define the exemption. This added specificity could benefit participants by providing more certainty concerning whether a particular event qualifies for the exemption. This added specificity could help avoid disputes and allow the exemption to operate more efficiently and effectively. The wording of the option, however, could create some issue in completion of the contract. Under its terms, the option requires the parties to include additional specificity in the contract. The extent of this additional specificity is not defined. NOAA Fisheries is unlikely to be able to assess whether the parties have adequately met any requirement for additional specificity, making the option difficult or impossible to administer. In addition, to the extent that requiring additional specificity may prevent parties from reaching an agreement, the option could be problematic. If the parties disagree on the extent of specificity required to satisfy the option, NOAA Fisheries could be put in an unmanageable position. While requiring additional specificity could be administratively problematic, allowing the parties to include additional specificity could be beneficial. Giving the parties the flexibility to include agreed to terms that define the option (but not requiring additional specificity) could improve certainty, without contributing to potential dissention and standoffs concerning those terms blocking use of the exemption altogether.

Method of defining the exemption

To qualify for the exemption, the IFQ holder must have entered a contract with the holder of matched IPQ and a regional representative (which may be a community or regional entity) defining conditions under which the exemption will be granted and any compensation that should be paid for the impacts of the redirection of landings.

One of the following three options could be applied to define the regional entity that would be a party to the contract:

> **Method of defining the exemption and compensation**:
>
> The exemption shall be generally defined in regulation. To receive an exemption, however,
>
> **Option 1**: an IFQ holder the holder of matched IPQ, and the entity holding (or formerly holding) the right of first refusal for the IPQ, or
>
> **Option 2**: an IFQ holder the holder of matched IPQ, and an entity identified by the community benefiting from (or formerly benefiting from) the right of first refusal for the IPQ, or
>
> **Option 3**: an IFQ holder the holder of matched IPQ, and a regional entity agreed to by the communities benefiting from rights of first refusal (or formerly benefiting from rights of first refusal) in the designated region of the IFQ and IPQ,

Under the first two options, the interests supported by regional landing requirement applicable to IPQ (and indirectly IFQ) are effectively transferred on to the community benefiting from the right of first refusal, by requiring that community's representative to be a party to any contract allowing an exemption to the regional landing requirement. Although IFQ and IPQ are tied to a region, the starting point for establishing regional and community interests related to the IPQ is the community in which processing

occurred that led to the allocation of IPQ (the 'community of origin'). In the first instance, it is this community that was intended by the Council to benefit from the IPQ through the establishment of the rights of first refusal and the requirement to process in the 'community of origin' during the first two years of the program under the cooling off requirement. Although other communities in the same region may benefit from the regional designation on shares, the interest of the community of origin was a primary consideration when the program was implemented. Using this rationale, it seems reasonable to require that the compensation agreement include the IFQ holder, the matched IPQ holder, and the community of origin on the matched IPQ. The first two options for identifying the party to the exemption contract are based on this nexus between the community of origin and the shares.

Under the **first option**, the regional representative in the contract would be the entity representing the community of origin in the right of first refusal. Since this entity already represents the community of origin through the right of first refusal on IPQ, that entity could be considered as the contracting entity for purposes of defining the exemption from regionalization (including compensation provisions). In the cases of St. George, St. Paul, False Pass, and Akutan the representative organizations are the local CDQ groups. In all other cases, the groups were designated by the community to hold the rights of first refusal. Use of the right holder as the regional entity would simplify administration by using parties that are already identified by and included in the rationalization program administration. The use of these entities may be justified, as they already represent community interests through their activities as right of first refusal holders. In most cases, this representation requires familiarity with community economic activity and a connection (formal or informal) with local government.

Some participants in the fisheries, however, have expressed concern that the right of first refusal holders (who are generally formed to hold shares in the fisheries) may not be appropriately positioned to represent community or regional interests in landings. It is suggested that some of these entities may not be fully engaged in all tax and economic development interests in the communities (beyond the fishing industries that they participate in). To accommodate this circumstance, the **second option** would allow the community benefiting from the right of first refusal on IPQ to select an entity to represent regional interests in any contract related to those IPQ. This option would allow the community to select the right holder, in the event that the community believed that the right holder would adequately represent the community's interests in the contract. So, it is possible that this option could result in the same entities being party to exemption contracts. The community, however, would be allowed to select some other entity, if the community believed that the right holding entity did not adequately represent the community interests. While this option has the benefit of allowing a community to select an entity that it deems most appropriate for representing its interests under the exemption, the option would add to administrative burdens at three different levels. First, in subject communities, it would require the community to engage in a process to identify the representative entity for the contract. Depending on the community, this could be a time consuming and contentious process. Second, if a community elects to identify a party other than the holder of the right of first refusal to represent its interests in the contract, the establishment of that entity as the representative could have some additional administrative burden. Some administrative action may be required by the right of first refusal holder to manage the contract, but that burden could be greater for other entities, particularly if a community elects to develop a new entity for representing these interests. Third, NOAA Fisheries would likely have additional administrative requirements necessary to identify the entities to the contracts and their contracting authority. The extent of any of these added costs depends not only on whether communities choose to use other entities for the exemption contracts, but also the dynamics of the community and selected entity.

Both of the first two options fail to fully identify parties for contracts for all shares. In both options, the right of first refusal is used to identify the party to the contract; however, some regionally designated

PQS and IPQ are not subject to rights of first refusal (see Table 15). In cases of the historical processing occurring outside of any community or in a community with minimal processing history, no rights of first refusal were established. **If either of these first two options is selected, an alternate method of identifying a community (or regional) party to the contract must be developed for IPQ that are not subject to a right of first refusal.** One method could be to allow any party to any exemption contracts in the region to represent community interests with respect to shares that were not subject to rights of first refusal. This method will ensure that regional interests are represented with respect to these shares in a manner similar to other shares that are subject to rights of first refusal and regionalization. This approach, however, could result in less protection for the region, if rights holders in a region compete for the contract. A rights holder may be willing to accept less favorable terms, for shares for which it does not have the exclusive negotiating right. Other methods of identifying an appropriate party to these contracts could be used, such as allowing regional communities to collectively designate the entity. These other methods likely add to administrative costs and complexity and may induce some political complications.

Table 15 Percent of PQS pool with no right of first refusal by fishery.

NoROFR

Bristol Bay red king crab	Bering Sea *C. opilio*	Eastern Aleutian Island golden king crab	St. Matthew Island blue king crab	Pribilof red and blue king crab
2.7	2.9	0.9	64.6	0.3

Sources: NMFS Restricted Access Management IFQ database, crab fishing year 2006-2007.
Note: Eastern and Western Bering Sea *C. bairdi* and Western Aleutian Island golden and red king crab fisheries are not subject to regionalization.

Under the **third option**, the communities in a region that hold (or have held) rights of first refusal would collectively designate a single entity to represent the region in all contracts. The provision would be administered on a fishery-by-fishery basis, so that interests in the regional exemption parallel community interests in the fishery. While, on its face, this option is relatively simple, its implementation could be complex, and possibly contentious. As written the provision suggests that all communities in a region must agree on the representative entity. Requiring this consensus could be viewed as inequitable since some communities might have relatively minor interests in a fishery and others have large interests. Providing those with a small interest with an effective veto power over the designation could complicate any attempt to develop the contract. If communities are unable to come to agreement, it would seem inequitable to simply disregard the requirement for the contract (as it is the contract that provides the regional protection). Yet, allowing such a disagreement to prevent the exemption (since no contract would be established) could make the provision for the exemption ineffective. Neither of these potentialities seems particularly desirable.

Using an alternative approach that weights each community's contribution to the decision based on the share of the PQS pool it has rights of first refusal interests in might also be problematic, since the importance of a fishery to a community may not be reflected by the portion of a PQS pool that is subject to that community's rights of first refusal. In a small community, an interest in a relatively small portion of the pool may be very important. This small community may have little (or no) influence over the choice of the entity to participate in the contract, as its vote in the decision will likely be outweighed by the votes of communities with rights of first refusal on larger portions of the PQS pool. Disenfranchising small communities in this manner could disproportionately affect their interests in the exemption, particularly, if the representative entity chooses to compensate only communities with larger interests.

Again, the outcome of requiring communities to collaboratively select a regional representative could be problematic.

Administration of any option requiring one or more communities to identify a representative entity could result in a delay in selection of the representative, leaving the IFQ and IPQ holders without a party to contract with. These circumstances could be addressed in one of two ways. A requirement could be added that representatives be selected by a date certain or no regional representative would be required to be a party to the contract. Such a provision would force community representatives to designate a representative in a timely manner. Alternatively, the provision could be developed to simply require a regional designee to be a party to the contract without exception. In this case, a dispute over the selection of the representative would simply make the exemption inaccessible.

The third option also fails to identify the regional representative in the Western Aleutian Islands golden king crab fishery. While catcher vessel owner QS and PQS are subject to regional designations, that fishery does not have any rights of refusal, because the regional designations are not explicitly determined based on historic processing. As a result, rights of first refusal cannot be used to identify the regional representative for exemption contract in that region. In the years leading up to the program, Adak was the only community in the West region to host processing in the crab fisheries. Since the program was implemented, Atka has expressed an interest in developing local processing capacity, but no processing of crab is known to have occurred in Atka to date.

An additional issue that could arise under any of the options is that the regional designee might also be an IFQ or IPQ holder that is subject to the regional landing requirement.[11] This could result in conflicting interests, as the regional interests could conflict with the interest in obtaining the greatest possible benefit from shares. This potential conflict could be addressed a few different ways. One option could be to identify a different representative, in cases in which the regional representative has any interest in IFQ or IPQ. In considering this approach, it should be noted that typically IFQ are held by a cooperative (rather than directly by a QS holder). Since cooperative held IFQ are not distinguishable by the underlying QS holder, any IFQ held by a cooperative to which to the regional representative belongs would be subject to the conflict and would need to be represented by a different representative. If the Council wishes to use this approach, it will need to specify a method of selecting the representative, which could increase administrative costs. Alternatively, a requirement could be added that the terms of any exemption and compensation may be no less restrictive than those applicable to any IFQ or IPQ holder. Requiring comparable terms may limit the potential for self dealing, without adding administrative burdens or complexity.

An additional consideration when selecting an option to identify the regional representative is the ability of the entity to enforce the agreement. Enforcement will require that the regional representative have adequate resources to pursue compensation. The wherewithal of these entities could vary under the different options and within options across regions. Any newly created entity may not have adequate resources to enforce compensation provisions. Established organizations with substantial assets (such as CDQ groups representing St. Paul and St. George with respect to rights of first refusal) on the other hand will have the financial ability to pursue others should they fail to comply with the compensation agreements. While newly created entities will have limited resources to pursue enforcement, it is possible that other more established entities in the region will recognize the importance of the compensation and support efforts to enforce compensation for its local benefits. As a result, it is possible that the financial

[11] This conflict is most likely under the first option, in which the regional representative is the entity that represents (or represented) the community under any right of first refusal. These entities (particularly the CDQ groups that hold rights of first refusal) are most likely to have QS or PQS holdings.

ability of the regional entity itself to enforce compensation provisions may be unimportant, as others in the region may be inclined to step in.

Administration of the exemption

Although administration is simplified by the use of contracts and affidavits defined by this alternative, adequate administration of the exemption will have some level of complexity. The provision selected by the Council for administration provides:

> **Administration of the exemption**
> The exemption shall be administered through submission of an affidavit by the holder of the IFQ for which the exemption is applied. An affidavit attesting to the satisfaction of requisite conditions for the exemption (as agreed in the contract) shall constitute conclusive evidence of qualification for the exemption.

Under this provision, an IFQ holder is required to file an affidavit stating that the conditions of the exemption have been met. Once this affidavit is filed, the exemption would be granted. The contents of the affidavit would depend on the contract, as the contract is to specify the conditions required for the exemption. The IFQ holder is likely to be in the best position to know whether conditions prevent an IFQ delivery that satisfy the exemption criteria, and therefore, is likely in the best position to submit the affidavit. The IFQ holder would also be responsible for any misrepresentation of conditions.[12] Conditions justifying an exemption range from conditions on the water, which are observed by the captain of the harvesting vessel, or conditions on shore, which may be observed by the IPQ holder or IFQ holder. In either case, the IFQ holder can be expected to have regular communication with others involved in the delivery, providing the IFQ holder with information to assess whether exemption criteria are met. In cases where the IFQ holder relies on the captain to provide information that is the basis for the affidavit, the captain using the IFQ would be acting as the agent of the IFQ holder and have an obligation to the IFQ holder to provide accurate information.[13]

The use of contracts and affidavits for administration will allow the exemption to be implemented on a case-by-case basis to accommodate individual circumstances that may vary across participants. For example, ice conditions, which to date are believed to be the most likely event that would justify an exemption, vary greatly with location. Also, the ability to navigate through ice safely varies across vessels. The captain of a vessel, with whom the IFQ holder is expected to be in regular communication, is likely in the best position to make any decision of whether that vessel can safely traverse through local ice conditions to make a delivery. The use of an affidavit is intended to place discretion concerning decisions with the captain, who can communicate with the IFQ holder concerning conditions. Under the system of affidavits, NOAA Fisheries would summarily grant an exemption on receipt of a complete application, including the IFQ holder's affidavit attesting to conditions satisfying exemption criteria. The use of affidavits in this manner could aid in overcoming several potential complications in administration.

Some stakeholders may oppose the use of a system of affidavits because it could carry some risk of abuse. Cases where the criteria for an exemption are clearly not met could arise. In addition, less clear cases

[12] Although the captain may be best positioned to verify certain circumstances justifying the exemption, it is likely that some circumstances (such as those on shore) cannot be verified by the captain. In addition, it is unlikely that a captain on the water will be able to have a signature notarized, as necessary for an affidavit, and may not be able to submit written documents, as needed for the application.

[13] It should be noted that the IFQ holder may not have direct control over harvest activities, as that may be deferred to certain cooperative members. In that case, the cooperative members with control over harvest would need to provide the IFQ holder (i.e., cooperative representative) with information to substantiate the conditions described in the affidavit.

where conditions may (but do not clearly) merit an exemption can occur. In both of these cases, it may be feared that an IFQ holder would be inclined to pursue an exemption any time borderline conditions are present. For example, an IFQ holder could elect to submit an affidavit supporting an exemption rather than subjecting a vessel to a minor, acceptable risk. Excessive use of affidavits in this manner could have notable effects on stakeholders, particularly communities and processors that depend on landings from the fisheries. Specificity in the definition of the criteria for an exemption may help limit the number of cases where the qualification for the exemption is uncertain. This specificity could be achieved through contractual provisions supplementing the definition, add further specificity to the exemption criteria. In addition (as discussed below), the system of compensation in the event an exemption is granted should create a noticeable disincentive for excessive use of the exemption by IFQ holders seeking only to avoid minor inconveniences.

In any case of an exemption, a contract must be filed with NOAA Fisheries between the IFQ holder, the IPQ holder, and the regional representative. Clearly, these contracts must be filed prior to the exemption being granted, yet the options do not specify whether a specific timeframe should be used for filings. Effective administration will likely require that the IFQ holder, IPQ holder, and regional representative be identified allowing for expeditious processing of an affidavit attesting to conditions qualifying for the exemption. **To ensure that administration can proceed without delays, contracts could be required to be filed prior to the season opening on a date certain.** With few IPQ holders and almost all IFQ held by 20 or fewer cooperatives, the parties should be able to complete all contracts in the preseason. Over time, it is likely that most contracts would be completed even prior to the issuance of IFQ and IPQ. Once the initial contracts are developed it is likely they will become somewhat standardized, with exemption qualification and compensation being commonly defined year to year.[14] As a consequence, only in the first few years is an early filing requirement likely to constrain any participants.

Mitigation

The exemption alternative includes the following two options that would require the IFQ holder and holder of matched IPQ to attempt to mitigate the effects of the exemption (or obviate the need for the exemption):

Mitigation requirements

Requirement to attempt to mitigate:

Option 1: To receive an exemption the IFQ holder and the holder of matched IPQ shall have exerted all reasonable efforts to avoid the need for the exemption, which may include attempting to arrange delivery to other processing facilities in the designated region unaffected by the unavoidable circumstance, attempting to arrange for the use of IFQ (and IPQ, if needed) not requiring delivery in the affected region, and delaying fishing.

Option 2: An IFQ holder will not be granted an exemption, if the IFQ holder holds any unused Class B IFQ, C share IFQ, or Class A IFQ that may be delivered outside of the affected region.

The **first option** requires the IFQ and matched IPQ holders to have exerted all reasonable efforts to avoid the need for the exemption. The option identifies attempting to deliver to alternative facilities and attempting to use alternative IFQ and IPQ that are not restricted to the region. Including a requirement that all reasonable efforts be exerted to avoid the need for the exemption could lead to fewer exemptions. By not attempting to identify prerequisites for the granting of the exemption, the provision could avoid unintended negative consequences. For example, strictly requiring an IFQ holder to obtain substitute IFQ

[14] It is possible that the contracts could standard across regions, as regional representatives are likely to request similar contract provisions from all IFQ and IPQ holders and IFQ and IPQ holders request similar treatment from regional representatives.

allowing delivery outside the region, if those IFQ are available, could impose excessive costs with little benefit to anyone but the seller of the substitute IFQ. In addition, a strict requirement to engage in a search for substitute IFQ could delay a landing resulting in deadloss. Using a more general provision that requires the IFQ and IPQ holder to take reasonable actions to avoid the need for the exemption, without specifying those actions, should avoid these unintended consequence. Tempered by requiring only "reasonable efforts," the provision is not overly onerous, but should provide protection to IFQ and IPQ holders constrained by the landing requirements and regions whose interests are intended to be protected by those requirements. In the long run, the option could lead to better coordination of share usage by harvesters and processors, avoiding the need for exemption in all but the most limiting circumstances.

The **second option** specifies that an exemption will not be granted in the event that an IFQ holder also holds IFQ allowing delivery outside of the affected region. This option will prevent the selective identification of regionally designated IFQ by a person to avoid compliance with regional landing requirements. On its face, this provision appears reasonable, but given the system of commitments between IFQ holders and processors under the program, it is possible that use of other IFQ could constitute a breach of contract by the IFQ holder. To avoid this potentiality, IFQ holders could include a provision for emergency use of IFQ in contracts in which those shares are committed. Such a provision could serve to limit the use of the exemption and simplify administration by limiting use of the exemption to circumstances where the IFQ holder has no shares that, on their face, could be used to support the landing. Without question, this type of requirement will be disruptive to delivery schedules and could limit the extent to which IFQ holders and IPQ holders obtain the greatest value from their allocations. Yet, given that the exemption is only to be available to address circumstances that cannot be otherwise controlled, it is unlikely that the exemption could ever be granted without causing delivery schedule disruptions and losses of efficiency. The requirement of this option, however, may reduce the extent of those disruptions by acting as a catalyst for participants to considered contingencies, if they anticipate having difficulty complying with the regional delivery requirements.

Administration of the exemption may also be simplified by the option that limits use of the exemption to times when the IFQ holder has no IFQ that may be substituted for the regionally limited IFQ. Any time the exemption is used, NOAA Fisheries will need to credit landings against IFQ and matched IPQ. If an IFQ holder has both IFQ that are usable to support the landing and IFQ requiring the exemption to support the landing, it is possible that questions may arise concerning whether the IFQ holder intends to use the exemption for the landing (i.e., NOAA Fisheries will need to be certain which IFQ should be credited with the landing at the time of the landing). IFQ accounting would be simplified, if this option is used to limit the exemption to when IFQ to support the landing without the exemption are held by the person receiving the exemption.

Compensation

To ensure the flow of benefits to those intended to benefit from the regional share designations and to limit potential abuse of the exemption, the following provision allows for compensation in the event the exemption is used:

> **Compensation**
>
> Compensation shall be as agreed in the contract among the IFQ holder, the holder of matched IPQ, and the entity representing regional/community interests.

The degree to which it is appropriate for an IFQ holder or IPQ holder to pay compensation for losses arising from exemptions is debatable, since those parties are unlikely to have caused the circumstance that prevented deliveries and effects may differ across IFQ holders and IPQ holders. Some IFQ holders may bear additional costs from rescheduling deliveries and traveling to more distant ports, while others may

have no additional costs from the exemption. Likewise, an IPQ holder who has activity and production redistributed to another location will be affected differently from one who loses the benefit of the activity and production altogether. These uncertainties and differences suggest that a flexible mechanism for determining any compensation for exemptions may be appropriate. To allow this flexibility the exemption alternative allows for contractual agreements be used for specifying any compensation that may be required in the event an exemption is received.

Use of a contractual arrangement allows for flexibility to address changes in circumstances and improved information as the parties develop a better understanding of the scope of necessary exemptions and the consequences of those exemptions for the different stakeholders. Although it may appear the regional representative is in a weak position with respect to any negotiations concerning compensation, requiring the contract and making the regional representative a required party to the contract effectively provides that entity with the power to prevent any exemption. IFQ and IPQ holders would therefore forced to negotiate terms for compensation to the community entity. The community entity might be willing to concede reasonable terms to avoid being cast or perceived as extracting excessive compensation from IFQ and IPQ holders unable to comply with regional landing requirements without exposing their vessels and crews to unreasonable risks or bear excessive costs.

Compensation for costs and losses arising from the exemption could take on a few different forms. The simplest regulatory means of addressing the redistribution of benefits would be a system of cash payments. Yet, the amount of those payments may differ across stakeholders and circumstances. For example, a community that loses one landing from a season with several million pounds of deliveries may be fully compensated for any loss by reimbursement of lost tax revenues. Tax revenues, however, differ by community and can be difficult or impossible to track to specific landings. In general, local governments typically receive between 1.5 and 2.5 percent of the ex vessel revenue from each landing as shared fishery business taxes ('raw fish tax). If the landing takes place in a city that is within a borough, any payment is shared evenly between the city and borough. In addition, a municipality may collect its own raw fish tax on landings. Municipal raw fish taxes vary by community, ranging from approximately 1 percent to 3 percent of ex vessel revenues. Based on these tax rates and tax sharing arrangements, local municipalities lose between approximately 2.5 percent and 5.5 percent of ex vessel revenues in tax revenues with a loss of landings. In addition, communities may be prevented from knowing ex vessel landings amounts and revenues by confidentiality protections, limiting their ability to rely on the provision. If the exemption is applied, IFQ holders and IPQ holders will bear a tax burden in another jurisdiction, where the IFQ landings take place. In some cases, the tax burden arising from using the exemption could exceed the tax burden in the absence of the exemption. Imposing an additional payment burden on persons using the exemption to address circumstances beyond their control may be viewed by some as unfair.

Providing the parties with the ability to negotiate compensation allows for more creative arrangements to compensate for the effects of the exemption. For example, when deliveries are prevented by unforeseeable circumstances a community may suffer losses in economic activity, in addition to losses of tax revenues.[15] Compensating the community for those losses by delivery arrangements for unrestricted shares at some future time may be a more agreeable resolution to all parties than a payment to the regional entity (or its designee). These delivery arrangements may impose less cost on IFQ and IPQ holders who may already bear unexpected costs arising from the disruption of their operating plans and more adequately compensate the community than simple payments to offset lost tax revenues. Depending

[15] The loss of a few deliveries over a few days is unlikely to substantially affect the community's economy, if the community is already supporting a fully staffed processing facility that is prepared for the redirected deliveries. Longer term exemptions, however, could have more substantial effects on economic activity in a community.

on the timing of the exemption, it is possible that compensating landings could be made at two times. An IFQ holder could make compensating landings later in the same season, if unrestricted IFQ came available at a later time in the season. Alternatively, the landings could be made at a later time. Although it is difficult to develop a single rule applicable to all compensating landings, it is possible that individual parties could agree to terms that allowing compensating landings (in lieu of payments) that would be equitable in the eyes of all parties involved. By allowing the parties to resolve the details of the compensation, timing issues and amounts of compensation can be deferred to the parties, who may be better positioned to address those details.

A system requiring only simple a affidavit affirming conditions that qualify for the exemption (without compensation) could lead IFQ holders to access the exemption to avoid the requirements for either convenience or simple economic gain. The added requirement of inclusion of a compensatory provision in exemption contracts should discourage unwarranted uses of the exemption. Since the parties to the contract including the IFQ holder, the holder of matched IPQ, and the regional representative, the regional representative should have ample negotiating leverage to include a compensatory provision that is a reasonable deterrent against abuse of the exemption.

An added advantage to using a system of contracts to administer compensation is that NOAA Fisheries need not be involved in the administration of compensation. Instead, the parties can administer any compensation, with enforcement through civil actions between the parties to the compensation contract. Although settlement of claims through civil actions may increase costs to the parties if one party contests a claim, in most instances the private administration of claims will reduce costs and expedite claim processing by removing the administrative requirements that apply to agency processing of claims.

Operation of the exemption alternative by region

With large portions of the catcher vessel owner Class A IFQ pool subject to North region landing requirements in the St. Matthew Island blue king crab, the Pribilof red and blue king crab, and the Bering Sea *C. opilio* fisheries and few available processing locations, North region landings are the most likely to be redirected under the exemption alternative. The mostly likely cause of future redirected landings is ice. When ice descends to the Pribilof Islands, vessels may be unable to access processing locations in and around the islands. Since ice conditions occur in the winter months through April, potential exemptions based on ice conditions are likely to only to occur in the Bering Sea *C. opilio* fishery. Ice conditions may or may not occur in any given year. When present, ice can prevent deliveries for up to a period of weeks intermittently. In these circumstances, ice frequently will cover a portion of the fishing grounds, preventing continued prosecution of the fishery. As a result, use of the exemption to avoid ice is likely to occur for a limited number of deliveries from vessels active in the fishery when the ice descends to the Pribilofs. Exemptions could be accessed periodically as vessels find themselves uncertain of their ability to safely access processing locations. The potential for the exemption to be used should be limited to the extent that IFQ holders are required to pursue alternatives to the exemption. If the exemption cannot be used if the IFQ holder has IFQ allowing delivery outside of the region and is required to take reasonable steps to avoid the exemption, it is possible that few exemptions will be required. Fishing may also be delayed to avoid need for the exemption.

In addition to ice conditions, North region deliveries could also be redirected under the exemption, in the event that only a single facility is operating in the North and that facility is disabled or inaccessible. In this case, it is likely that IFQ holders active at the time will wish to use the exemption to offload any crab onboard. If required to take steps to minimize use of the exemption IFQ holders will also delay fishing until the processing platform is accessible (or a substitute platform is made available). In most

circumstances, use of the exemption should be limited to deliveries from vessels active in the fishery at the time an event occurs.

In a rare circumstance (arising from either prolonged periods of ice or a processing facility being disabled or inaccessible for a extended period), it is possible that a substantial number of deliveries may need to be redirected under the exemption to allow for full harvest of the TAC. For example, one or more events that disabled both the St. Paul and St. George harbors for an extended period of time could lead IFQ holders to use the exemption for a large portion of the North region IFQ. The probability of such an occurrence is not known, but is believed to be small.

Although substantially more IFQ are subject to South region landing requirements, the potential for exemptions from regional landing requirements in the South is far lower than in the North. Several processing facilities are located in the South. If a single plant is disabled, it is likely that IFQ holders will be able to make arrangements for an alternative delivery location in the South. Only if several facilities are simultaneously inaccessible or disabled is it likely that any landings would need to be redirected North under the exemption. Te probability of such a catastrophic event is believed to be small.

Half of the catcher vessel Class A IFQ in a single fishery (the Western Aleutian Islands golden king crab fishery) are subject to West region landing requirements. Currently a single shore plant processes crab in the region, but preliminary planning is underway to introduce crab processing to a second facility. In addition, floating processors could be used to process West designated landings in the region. A provision exempting West region custom processing from processor share use caps (which will be implemented prior to any amendment under consideration here) will likely result in all West region processing occurring in a single facility. If that facility were disabled, it is possible that the exemption would be used to redirect landings outside of the West region. In most instances, this would likely amount to a single delivery, as participants could delay fishing, while other processing capacity is made available.[16]

2.4.3 Effects on QS and IFQ holders

Under the program most QS holders join cooperatives, who receive annual IFQ allocations based on the QS holdings of their members. This section discusses the effects of the alternatives on both QS holders and the cooperative IFQ holders who represent them. In addition, the section also considers the effect on the few QS holders who have elected not to join cooperatives, but harvest their own IFQ.

In general, cooperative IFQ holders use vessels of members to harvest their IFQ. Decision making with respect to harvests, however, varies across cooperatives. In some cooperative structures, each member is responsible for the harvest of the IFQ yielded by the QS the member brought to the cooperative, effectively deferring decision making to the QS holder. In this arrangement, the QS holder effectively operates as the IFQ holder, despite the nominal interest of the cooperative in the IFQ. Vessel operators in the cooperative may reach agreements with other QS holders in the cooperative to harvest IFQ arising from their QS, which leads to consolidation of IFQ. Each QS holder will arrange for the harvest of a portion of the cooperative's IFQ allocation, either harvesting its own portion of the cooperative's IFQ allocation or contracting for that harvest with another member of the cooperative. Disruptions in harvests

[16] Since the absence of capacity is not unanticipated by the IPQ holders, that condition would not meet the definition of an unanticipated circumstance as required to qualify for an exemption. The exemption as stated contemplates that participants will take all reasonable actions necessary to make capacity available in the region to ensure compliance with the regional landing and processing requirements. Financial or economic considerations associated with the cost of compliance alone would not qualify for the exemption.

must be addressed by the cooperative's vessel owners, who may attempt to arrange IFQ transfers, if needed.

In other cooperative structures, the cooperative manages the harvest of all of the cooperative's IFQ. Under this arrangement, the cooperative maintains active oversight of the harvest of its IFQ. In this arrangement, the cooperative will typically manage the harvest of all cooperative IFQ in a manner intended to maximize the total returns to the cooperative. These benefits are then distributed to members based on their respective IFQ contributions to the cooperative. Adjustments may be made to these distributions based on a variety of considerations, including the regional designations of IFQ, whether the QS holder actively harvests cooperative IFQ, and the relationships of the QS holder to IPQ holders. Disruptions in harvests in this structure are addressed through a cooperative manager, who can redistribute landings and IFQ through coordination of vessels in the cooperative's fleet.

In addition to these two extremes, some cooperatives likely have different degrees of coordinated management of harvest. For example, a cooperative member may coordinate the harvest of IFQ yielded by a subset of the cooperative's members. In this case, this portion of the cooperative's IFQ may be subject to coordinated harvest in a manner similar to a more centrally managed cooperative. In considering the effects of alternatives, this portion of the cooperative may be viewed as a centrally managed cooperative.

Under these described cooperative structures, the IFQ holders may be compelled to respond to circumstances that prevent compliance with delivery requirements. In the first case (vessel owners assuming responsibility for coordinating harvest of cooperative IFQ), each active vessel owner must respond to disruptions, despite the suggestion of coordination of harvests that arises from cooperative membership. In these cases, the vessel owner might need to make direct requests to member QS holders to harvest their IFQ, despite the appearance of a single common holding. A cooperative that manages IFQ harvests through a central manager may be more responsive to unexpected circumstances by coordinating harvest of a larger pool of IFQ. Although cooperative IFQ holders can respond to different circumstances, a cooperative that coordinates harvest of a larger amount of IFQ may be able to respond more quickly and with lower transaction cost.

Also under either cooperative structure, as circumstances on the water merit, the vessel captain will participate in decision making. Safety decisions are believed to be wholly at the discretion of the captain. Follow on decisions, once safety issues are addressed, however, are usually made in consultation with the vessel owner or cooperative manager, since it is the those persons who remain responsible for the harvest of IFQ with both NOAA Fisheries and represented QS holders.

In the following analysis, the person actively coordinating the harvest of IFQ is referred to as the "IFQ manager". In cases of centrally coordinated cooperative IFQ harvests, the IFQ manager is the cooperative manager. In cases of less central coordination of IFQ harvests, the IFQ manager will typically be a vessel owner in the cooperative that has assumed responsibility for the harvest of a portion of the cooperative's IFQ. It should be noted that regardless of the cooperative arrangement for the harvest of its IFQ, the cooperative and its members remain jointly and severally liable for the cooperative's actions in the harvest of the IFQ, including any overage and any failure to comply with the terms of the IFQ privilege. In cases of a cooperative with multiple IFQ managers, each managing a portion of the cooperative's allocation, each IFQ manager will have responsibility to the cooperative to maintain its catch within the terms of the IFQ it oversees, as well as the liability for the acts of the cooperative that arises with cooperative membership.

Status quo

Under the status quo, no exemption to regional landing requirements on catcher vessel owner Class A IFQ is permitted. Consequently, an IFQ manager must organize the harvest of crab and use of IFQ to comply with the regional landing requirements associated with Class A IFQ. If a landing using regionally designated Class A IFQ is prevented by an unforeseeable circumstance, the IFQ manager must either delay the landing or arrange for delivery to an alternative location. As a first measure, an IFQ manager may choose to delay a delivery, possibly continuing fishing or waiting in a safe location until the circumstance passes. The ability to effectively delay a landing may be limited, if the circumstance is unlikely to pass quickly. For a lasting condition, an IFQ manager will either need to find an alternative delivery location or return crab to the water to prevent excessive deadloss, which would count against IFQ at the time of landing. While return of crab to the water could lead to excessive mortality, the discarded catch would not be counted against IFQ. To avoid this cost, it is possible that an IFQ manager would discard catch, rather than delaying landing that crab until the circumstance has passed. Since the IFQ manager would need to coordinate the reharvest of crab to gain value from the unused IFQ, it is believed that discarding would only be used as a last resort by IFQ managers unable to otherwise address the circumstance.

Alternative delivery arrangements can be made either by coordinating the delivery with another facility within the region or by accessing IFQ that would support the landing outside of the region (i.e., either Class B IFQ or C share IFQ that can be delivered to any location or Class A IFQ designated for delivery outside the region). If the delivery is to be made within the region, the IFQ holder must be certain that the recipient of the delivery is able to take delivery. Since Class A IFQ is subject to matching with IPQ, the IFQ originally intended to support the delivery will be committed to the originally scheduled receiver. A variety of arrangements could allow the redirection of the delivery within the region. It is possible to include a clause in the original IFQ/IPQ matching contract that would permit the IFQ manager to make delivery elsewhere in the region using the matched shares, in the event the delivery is prevented. This arrangement would likely need to include a commitment of the IPQ holder to use the IPQ to support the delivery (either by transferring the IPQ or by arranging their use at the alternative location). Absent an arrangement with the IPQ holder, it is possible that the IFQ manager could use other IFQ it holds to make the delivery within the region, if another facility is accessible and IFQ are available to support the landing. In this case, the use of substitute IFQ could reduce returns to returns to QS holders.

Under the status quo, if an IFQ manager is unable to address the unforeseen circumstance by arranging a delivery within the region, the IFQ manager may be able to arrange for the delivery outside of the region using other IFQ. In some cases, an IFQ manager may have an array of IFQ for the fishery that can support the delivery to a processor outside the region. If the IFQ manager does not have IFQ to support a delivery outside the region, it may acquire access IFQ to support such a delivery. Under current rules, only cooperatives are permitted to transfer IFQ, so individual IFQ holders would not be permitted to acquire IFQ in such a circumstance. In some cases, the cost of access to alternative IFQ to support a delivery could be high. To reduce these costs, it is possible that prior arrangements could be made among IFQ managers within a cooperative and among cooperatives to ensure that exorbitant prices will not be charged for IFQ needed to address deliveries redirected to address unforeseen circumstances. In addition, most share holders are likely to be reluctant to extract excessive share prices in these transactions to maintain good will that may be beneficial in future transactions. In addition to needing IFQ to support a delivery, the IFQ manager must also make arrangements with a processor (and possibly an IPQ holder) to make the delivery. Short notice delivery schedule changes can be complicated by other commitments and priorities. As a result, IFQ managers attempting to redirect landings may have limited price negotiating leverage. Despite the potential leverage that a processor might have, most processors are believed to have priced these landings similarly to other landings from the fisheries. As with IFQ holders, processors are

believed to be reluctant to exert undue leverage to maintain good will that could be beneficial in future transactions.

In any case of a landing prevented by an unforeseen circumstance, the IFQ manager will be forced to assess the costs of these different choices. In general, an IFQ manager is likely to choose the alternative that imposes the least cost. IFQ managers, however, may also consider the risks associated with the different choices. For example, if ice conditions are preventing a delivery, an IFQ manager with a variety of shares may choose to immediately redirect a landing to an ice free location to avoid potential deadloss that would arise if ice conditions persist. In some cases, the IFQ manager may choose not to attempt to wait out the conditions to avoid any potential deadloss.

An unanticipated circumstance that prevents a delivery will increase costs to harvesters. The distribution of these costs between vessel owners and QS holders will vary across participants. It can be anticipated that a vessel owner will bear all costs associated with IFQ yielded by that vessel owner's QS holdings. The distribution of costs between a vessel owner harvesting IFQ yielded by other persons' QS holdings will depend on the terms of the harvest agreement. In many cases these are believed to be simple lease arrangements, under which the vessel owner pays a portion of the ex vessel price to the QS holder. Over the first few years of the program, these arrangements have evolved so that some agreements deduct certain costs from lease payments. These arrangements that include cost deductions are believed to be more common in cooperatives that use a single IFQ manager that oversees harvest of all IFQ. In these cases, in which revenues of the cooperative are shared across QS holders, the vessel owner's incentives are better aligned with the QS holder. The terms of these arrangements are generally confidential and vary across participants, but agreements are believed to pass on most out-of-pocket costs associated with unanticipated circumstances to the QS holders. In most cases, vessel owners are believed to have responsibility for any deadloss. Some vessel owners maintain cargo insurance against deadloss, including deadloss arising from unanticipated circumstances that prevent an offload. In the case of a vessel owner that independently leases IFQ from QS holder (rather than a IFQ manager overseeing harvest of all of a cooperative's allocation), that vessel owner may be more likely to address delivery complications with measures that pass the cost on to the QS holder, than the overall least cost approach to the problem. As a result, these arrangements are more likely to leave added costs of unanticipated circumstances to the vessel owner.

Effects of the status quo on IFQ managers, vessel owners, and QS holders are likely to vary somewhat across fisheries and regions. The North region of the Bering Sea *C. opilio* fishery is the region/fishery most likely to be affected by an unforeseen circumstance that would prevent deliveries. In that fishery, ice conditions periodically prevent deliveries in to St. Paul. Other circumstances (such as a disabled facility, as happened in the second year of the program) could also impede deliveries in the North. IFQ managers facing any of these circumstance will need to assess their possible choices, but will not be able to obtain an exemption from the regional landing requirement under the status quo. With no processing currently available at St. George, an IFQ manager would need to use (and possibly acquire access to) IFQ allowing the delivery outside the region, delay the landing, or discard catch. The choice is likely to depend on the prospect of the condition passing and other costs associated with the choice. In the case of ice preventing a delivery, conditions are somewhat unpredictable.

In the St. Matthew Island blue king crab and Pribilof red and blue king crab fisheries, substantial portions of the Class A IFQ are required to be landed in the North region. Since these fisheries are prosecuted earlier in the year than the Bering Sea *C. opilio* fishery, the potential for ice interfering with deliveries is substantially lower. If circumstances were to prevent a delivery to a facility in the North, the potential for an alternative location in the North to be accessible could be small. Both fisheries have historically had

relatively small TACs and may be supported by a single processing plant in the North region.[17] Consequently, a prevented North delivery would require the IFQ manager to either delay the delivery until the inaccessible plant (or a substitute plant in the North) is made available to take delivery or use IFQ that can support the delivery outside of the North region. Given the relatively small share of these fisheries that can be landed outside of the North region, it is possible that an IFQ manager may be have difficulty accessing IFQ to support landings outside the North region, if the IFQ manager does not retain those IFQ against the potentiality of an unanticipated circumstance preventing a North region delivery.

Also, if a delivery to a processing facility in the West region of the Western Aleutian Islands golden king crab fishery is prevented, harvesters are likely to have no alternative processing location available to take delivery within the region. In that region/fishery, only a single facility has operated since the program was implemented. The small amount of crab in the fishery is not believed to support multiple facilities in the region, which has limited amounts of other species available for processing. With few or no alternatives available for processing, if an unanticipated circumstance prevents a delivery in the West region, it is likely that the IFQ manager would need to postpone the delivery, if arrangements cannot be made to use IFQ that permit use outside of the West region. With only two catcher vessels participating in the fishery in the first three years of the program, an IFQ manager will have limited opportunity to acquire additional IFQ to support a landing outside the region, in the event that the IFQ holder does not maintain IFQ against the potentiality of an unanticipated circumstance preventing a delivery in the West region.

The ability of an IFQ manager to redirect landings outside of one of these regions, if an unavoidable circumstance prevents a compliance with a regional delivery requirement, may depend on the coordination of IFQ use throughout the season by that IFQ manager. IFQ managers who reserve IFQ that allow delivery outside of a region with a single active plant will be better positioned to respond, if an unanticipated circumstance prevents compliance with requirements to deliver to the region with a single plant. The extent to which IFQ are reserved to address contingencies will likely vary across fishery and with circumstances. Processor and harvester efforts to gain efficiencies could affect the timing of these landings. Currently, these designated regions with fewer plants are located in more remote areas, but are closer to fishing grounds. Most processors active in the North region would prefer to consolidate activities to reduce operating costs. In some instances, these accommodating these preferences could result in IFQ managers reserving IFQ designated for the remote region until later in the fishing season. In the St. Matthew Island blue king crab and Pribilof red and blue king crab fisheries in particular, a large majority of Class A IFQ designated for the remote North region. To gain efficiencies, an IFQ manager may choose to have each vessel make several short trips delivering to plants close to the grounds (and in the more distant North region) reserving a single delivery to plants (and the South region) more distant from the grounds at the end of a vessel's fishing. While these effects are likely to occur, it is difficult to predict the extent to which they will provide flexibility to IFQ managers to redirect deliveries prevented by an unanticipated circumstance.

For all South region landing requirements, the potential for an unanticipated event preventing compliance with a regional delivery requirement appears to be low. Alternative locations and processing facilities could support deliveries, if a planned delivery to a processor is prevented. Since most of these facilities are open year round, the ability of IFQ managers to address contingencies without moving deliveries outside of the region is substantially greater than in the remote regions.

[17] The Council recently adopted a provision that applicable in these two fisheries that would allow custom processing arrangements to consolidate all processing in the North region in a single facility without violation of the processor share use caps. Under small TACs, it is likely that processors would use this flexibility to consolidate all North processing in a single plant.

The exemption alternative

Under the exemption alternative, if a delivery is prevented by an unforeseeable circumstance, the holder of Class A IFQ subject to a regional landing requirement that has reached an exemption agreement with the holder of matched IPQ and the representative of the region would be permitted to obtain an exemption from regional landing requirements. While generally available, if an unforeseeable circumstance arose preventing a delivery, the exemption agreement could provide specificity concerning the circumstances that would qualify for the exemption and the terms of the exemption. The IFQ manager could also be required to take certain steps to avoid use of the exemption, including use of all other IFQ held by the cooperative or person holding IFQ that would receive the exemption. In addition, the agreement could provide for compensation that would be payable to either the compensate region interests affected by the exemption or the IPQ holder, in the event an exemption is received.

By providing the IFQ manager with an additional choice when confronted with an obstacle to a delivery, the exemption could in some circumstances reduce added harvester costs that accompany an unforeseeable circumstance preventing a delivery within a region. The potential for an IFQ manager to direct the use of the exemption will depend on several factors, including the cost of alternative means of addressing the obstacle to deliveries and the cost of any compensation required under the exemption agreement.

Prior to using the exemption, the IFQ manager would be required to use any IFQ held by the cooperative that allows delivery outside of the region (including Class A IFQ designated for another region, Class B IFQ, and C share IFQ). A few effects could arise from this requirement. First, IFQ managers are likely to ensure that share matching contracts (under which Class A IFQ deliveries are committed to specific IPQ) and delivery commitments for Class B and C share IFQ contain clauses that allow for the use of matched or committed shares to address contingencies in the event a regional delivery is prevented. Second, increased coordination of the harvest of IFQ within a cooperative is likely to occur. Currently, if an IFQ manager is required to use all commonly-held IFQ (which could include cooperative IFQ not subject to the IFQ manager's control), the exemption may be virtually inaccessible to some IFQ managers who do not have the ability to access other IFQ held by their cooperatives prior to using the exemption. These IFQ managers would be effectively attempting to acquire access to IFQ through arm's length from other IFQ managers in their cooperative. Although these other IFQ managers may be willing to assist, some will have commitments or lease arrangements that make them reluctant or unable to allow others to use the IFQ. To overcome this obstacle, cooperatives will likely include in their agreements (and in other agreements with others that affect cooperative IFQ) provisions that allow the redistribution of the IFQ within the cooperative to address unforeseeable circumstances that prevent compliance with regional delivery requirements.[18] While returns from IFQ to members may vary within a cooperative, the more coordinated use of IFQ within cooperatives could slightly reduce any variation in pricing, as members will sacrifice some individual control of the use of the IFQ allocations arising from their QS. In addition, the need to make cooperative IFQ available to address contingencies to ensure eligibility for the exemption could lead to more coordinated use of IFQ within each cooperative over time. The extent (and timing) of any such transition will depend on the extent to which the exemption appears to be useful. Cooperatives active in the Bering Sea *C. opilio* fishery (where compliance with regional delivery requirements are most likely to be prevented) are most likely to be subject to the pressure to adapt, as the exemption might be most beneficial in that fishery.

[18] It should not be overlooked that this outcome is a bit paradoxical, since no exemption is available under the status quo. The exemption alternative may have the ironic effect of driving IFQ holders to take more actions to avoid the need for the exemption.

In addition to using all commonly held IFQ that allow deliveries outside of the affected region, the IFQ manager must also exercise reasonable efforts to avoid using the exemption (including attempting to arrange delivery to another location within the region and attempting to acquire IFQ that allow delivery outside of the region). If an operating facility is available to receive the landing, the IFQ holder would not qualify for the exemption, if that facility is able to accept delivery of the landing. If additional IFQ could reasonably be acquired by the IFQ holder to support the landing outside the region, the IFQ holder would also not qualify for the exemption. Beyond these more obvious means of overcoming the need for an exemption, the IFQ holder would be required to pursue any reasonable measures to accommodate the delivery without the exemption.

If a circumstance qualifies for the exemption (including the exertion of reasonable efforts to avoid the need for the exemption), the IFQ manager must determine whether to request the exemption (through filing an affidavit). In making that decision, the IFQ manager will compare the costs of making the landing under the exemption with the cost of other options, including waiting for the circumstance to pass and possibly discarding catch.

Two factors are likely to be considered when determining whether to use the exemption. First, an IFQ manager may have operational costs of travelling to and making delivery outside the region under the exemption. The most probable cases for exemptions will arise in remote regions that are close to fishing grounds (such as the North region of the Bering Sea *C. opilio* fishery). While remote region deliveries may be more likely to be affected by an unforeseeable circumstance, deliveries in these remote areas (which are closer to fishing grounds) are also likely to be less costly, since a harvester may reduce costs of travelling to and from a more distant processing location. In cases of ice preventing the delivery, the longer trip could force the vessel to leave gear on the grounds for a longer period of time, which could jeopardize that gear, if advancing ice conditions are probable. On the other hand, some operational advantages may arise from travelling to the less remote processor for a delivery, if the vessel needs additional gear, fuel, or supplies, which may be more readily available and less costly in less remote locations. These various operational considerations could make the exemption more or less appealing depending on the circumstances of the vessel.

Compensation requirements will also affect the decision of the IFQ manager to secure an exemption. In addition to meeting exemption qualification criteria, use of the exemption would likely require some compensation to an entity in the region (which could be a community) and/or to the holder of the matched IPQ. The level of compensation would be determined by the contract required for exemption eligibility among the IFQ holder, the IPQ holder, and the regional representative. Since the IFQ holder is a required party to the contract, it is likely that cooperatives that have several members managing portions of the cooperative's IFQ would need to develop additional coordination of IFQ usage to allow the IFQ holder to negotiate on its behalf. Since it is a negotiated compensation, the level of compensation cannot be determined. A few considerations could influence the negotiated amount of compensation. Compensation could take a few different forms. Substitute landings are one possible form of compensation. For example, an IFQ manager may be willing to direct landings of IFQ catch not subject to regional landing requirements to the region that lost landings under the exemption. Depending on the circumstance, these landings could come from a later season or a different fishery. The amount of any compensating landings would be negotiated and may differ from the amount redirected, particularly if made from a different fishery. These redirected landings could be used to address both an IPQ holder's potential losses (if the exemption was used to send landings to a different processor) and a community's potential losses (for any landings to a different region under the exemption). Redirected landings could have appeal, as they could be used to address losses of economic activity under the exemption and as well as losses of revenues to

both IPQ holders and communities. The ability of any IFQ holder to commit to future landings could be questionable, as TAC changes and landing commitments may prevent the IFQ holder from ensuring that

Alternatively, financial payments could be used for compensation to either regional entities or IPQ holders. For a regional entity, the first potential basis for determining compensation might be landing taxes. Landing taxes are a clear loss to a community that loses landings because of an unanticipated circumstance. Two sources of tax revenues can be lost – municipal taxes and shared fishery business taxes (the 'raw fish tax'). Tax revenues differ by community and can be difficult or impossible to track to specific landings. Local governments typically receive between 1.5 and 2.5 percent of the ex vessel revenue from the shared fishery business taxes. If the landing takes place in a city that is within a borough, any payment is shared evenly between the city and borough. In addition, a municipality may collect its own raw fish tax on landings. Municipal raw fish taxes vary by community, ranging from approximately 1 percent to 3 percent of ex vessel revenues. Based on these tax rates and tax sharing arrangements, local municipalities lose between approximately 2.5 percent and 5.5 percent of ex vessel revenues in tax revenues with a loss of landings. These values could serve as a starting point for negotiations of any exemption compensation payment. It should be noted that if an exemption is received, IFQ holders and IPQ holders will bear a tax burden in another jurisdiction, where the IFQ landings take place. In some cases, the tax burden arising from using the exemption could exceed the tax burden in the absence of the exemption. On the other hand, regional entities may request payments in excess of the tax revenue loss, since a community derives economic activity in addition to tax revenues from a landing. These factors are likely to affect the amount of negotiated compensation, but their effects cannot be fully predicted and depend on the parties.

In effect, the exemption provides an IFQ manager with an additional choice, if confronted with a circumstance that prevents compliance with a regional delivery requirement. Although available, the exemption is only likely to be used only when it is more favorable than the other options, including waiting for the interfering circumstance to pass and possibly discarding catch. Since the alternative requires the IFQ manager to use all commonly held IFQ that could support the out-of-region delivery prior to obtaining an exemption and to pay compensation as defined by agreement, the exemption is unlikely to be used frivolously. In addition, the IFQ holder (through the IFQ manager, if different from the holder) is required to take all reasonable steps to avoid the exemption, which may include acquisition of additional IFQ to support the out-of-region landing. This requirement, together with the compensation requirement, is likely to deter use of the exemption, except in cases in which IFQ can only be acquired at an excessive cost. Despite these deterrents from use, an exemption will provide IFQ managers with an option, when faced with conditions that prevent compliance with regional delivery requirements.

QS holders will be affected by the exemption, since they likely bear some (or, in some cases, all) of the costs arising when compliance with regional delivery requirements are prevented by unforeseeable circumstances. To the extent that IFQ managers are able to reduce costs associated with these circumstances through use of the exemption, QS holders are likely to benefit from the exemption. Since the exemption is available only in very limited circumstances and comes at a cost of compensation to regional interests (and possibly the IPQ holder), the exemption is unlikely to result in substantial financial savings for QS holders, in most instances. Typically, the use of the exemption will have minor changes in operational efficiency. QS holders fishing the IFQ yielded by their QS will realize all of this savings, while a portion of this savings will be passed on QS holders that have lease arrangements for the fishing of IFQ yielded by their QS.

2.4.4 Effects on vessel operations and safety

The effects of the alternatives on vessel operations differ because the exemption alternative allows redirection of landings outside the Class A IFQ designated region, if certain conditions are met.

Status quo

Under the status quo, vessel operators must comply with regional landing requirements when using regionally designated catcher vessel owner Class A IFQ. In most instances, the effect of these requirements is to reduce efficiency by requiring additional coordination of landings and possibly impose additional costs, if the regionally compliant landing is at a more distant location from fishing grounds. The action considered here, however, could affect vessel operations when unforeseen circumstances prevent compliance with regional landing requirements. Under the status quo alternative, vessel operators prevented from making a landing using regionally designated IFQ have several possible choices. In some instances, the IFQ holder may have alternate IFQ allowing the landing to be made in another location. Alternatively, IFQ may be acquired to allow the landing to be made in outside of the designated region. In either of these cases, the vessel operators will need to coordinate their activity with the IFQ holder (if the IFQ holder is not the vessel operator) and both the processor (and IPQ holder) who was initially scheduled to receive the landing and the processor (and IPQ holder, if needed) who will ultimately receive the landing. If the condition preventing the landing is likely to pass, the vessel operator could choose to wait to make the delivery. In the extreme, the vessel operator could choose to discard its catch to avoid excessive deadloss that could result from an extended wait. If crab are discarded, the vessel would need to make additional harvests to make use of the IFQ.

In general, the effects of the status quo on vessel operations are that harvesters must make additional efforts to coordinate harvest activity with the regional landing requirements on Class A IFQ. When a landing is prevented by an unanticipated circumstance, vessel operations must be adapted to comply with regional landing requirements without exception.

Of greatest concern, the need to full comply with all regional landing requirements increases the incentive for vessel operators (in conjunction with IFQ managers) to force deliveries when circumstances may prevent the vessel from safely making the delivery. In all cases, the captain of a vessel is responsible for the safety of the vessel and may choose not to attempt to make a delivery to ensure the safety of the vessel. The captain, however, will have to balance the safety risk of attempting to make a delivery against the financial cost of redirecting or delaying the delivery. The most likely such circumstance that could pose a safety risk is that ice conditions could be an impediment to a delivery in the North region. While navigating a vessel through ice always poses some risk, in some circumstances a captain could reasonably choose to accept such a risk. The potential to accept the risk is likely greatest at the end of season when little or no unused IFQ would support a delivery outside of the designated region. In that case, a captain may be unable to substitute IFQ for the regionally designated IFQ. In addition, captains and crews are likely to have less patience for waiting out ice conditions and may be more inclined to accept greater risks to complete their seasons. In these circumstances, the threat to safety will likely be the greatest.

The exemption alternative

The exemption alternative provides an additional option to vessel operators that encounter unforeseeable impediments to complying with regional delivery requirements. Since these unforeseeable events arise infrequently and the exemption is narrowly tailored, it is unlikely to have widespread implications on vessel operations. The alternative, however, could provide some vessel operators with an additional choice in some circumstances that could benefit operators and reduce some safety risks. Specifically, the ability of vessel operators to gain an exemption could relieve some of the financial pressure to accept the risks incumbent in making a delivery under questionable circumstances (such as when ice is present, but

is arguably navigable) by providing a limited exemption from the regional landing requirement. Clearly, a vessel operator could still perceive a benefit to complying with the regional landing requirement, thereby avoiding any compensation that might be required in the event of an exemption. Yet, the outlet created by the exemption could be particularly important nearer the end of season when little or no unused IFQ would support a delivery outside of the designated region. In that case, a captain may be unable to use the regionally designated IFQ except by receiving the exemption to the regional designation or accepting risks associated with the delivery. Late in the season, captains and crews are likely to have less patience for waiting out ice conditions and may be more inclined to accept greater risks to complete their seasons. The exemption may provide a reasonable alternative that could lead vessel operators to avoid risks associated with attempting lands despite obstacles.

2.4.5 Effects on PQS and IPQ holders and processors

Since Class A IFQ are subject to both IPQ and regional landing requirements, PQS and IPQ holder interests will be affected by any exemption to regional landing requirements. This section discusses those potential effects.

Status quo

Under the status quo, no exemption to regional landing requirements is permitted. So, both regional landing requirements and IPQ commitments must be complied with. Processors will likely be idled in the event compliance with regional delivery requirements is prevented by an unforeseeable circumstance. If additional capacity is available within a region, IPQ holders may be able to make use of their IPQ by redirecting landings to another plant using custom processing arrangements. In some circumstances, compliance with regional landing requirements may require that an IPQ holder arrange for additional processing capacity in a region to receive deliveries under Class A IFQ/IPQ contractual agreements. Processors may incur additional costs through these arrangements. The extent of added processor costs will depend on the circumstance that prevents the delivery, as well as the responses of the parties to those circumstances. An extended event may be very costly, particularly if it requires the processor to maintain crews or make additional platforms available for processing to ensure that all IPQ are fully used (and delivery commitments are met). Costs from these delays will increase with the size of the plant's crab processing, assuming the plant has costs associated with maintaining crews and facilities until the circumstance passes.

To date, IPQ holders are believed to have maintained ex vessel pricing when deliveries have been rescheduled to accommodate unforeseeable circumstances, effectively leaving harvesters and processors to cover their respective costs associated with the impediment to deliveries. Whether pricing changes will occur in the future is uncertain, and may depend on the parties' responses to circumstances preventing compliance with regional landing requirements. The distribution of added costs of the two sectors, however, may differ depending on the circumstances and the response to the impediment. For example, if a processing plant is disabled, postponing all deliveries may reduce processor costs in comparison to deploying an additional processing platform to take deliveries while repairs are performed. Without a change in ex vessel pricing, the difference between these two responses could greatly affect the distribution of costs between the parties.[19] In the future, it is possible that price adjustments could be made to accommodate these differences. Clearly, a circumstance preventing compliance with regional

[19] Responses to circumstances affecting the distribution of costs are likely to be vigorously negotiated between the parties and could be subject to arbitration, if the parties cannot reach agreement. Under that system, an arbitrator is likely to consider the circumstance and the ability and costs various responses of the parties under the arbitration standard. While important to the parties, an analysis of the distribution costs between the sectors is likely to be quite speculative and is beyond the scope of this paper.

landing requirements will increase costs to processors with those costs being dependent on the specific circumstances, the responses of both the harvesting and processing sectors, and any change in pricing that might be negotiated between the parties or driven by the arbitration system.

The distribution of costs among processing sector participants could also vary depending on the circumstances. IPQ use can occur through few different means. Some IPQ are used by the holder of the underlying PQS. These persons would bear any processor costs associated with circumstance preventing compliance with a regional delivery requirement being complied with. It is not known whether a standard arrangement exists for the distribution of costs between the PQS holder and processor under lease and custom processing arrangements.

The exemption alternative

Under the exemption alternative, allows a Class A IFQ holder to obtain an exemption from regional landing requirements, in the event that compliance with that requirement is prevented by an unanticipated circumstance. As defined, the alternative provides the IFQ holder with the ability to exercise the exemption, if an unanticipated circumstance prevents compliance with a regional delivery requirement. The specific terms of the exemption, including possible compensation to the matched IPQ holder, will be defined by an agreement among the IFQ holder, the holder of matched IPQ, and a regional entity.

Alone, allowing the IFQ holder the unilateral authority to exercise the exemption could jeopardize the position of IPQ holders and processors. For example, if a harvester uses the exemption with limited discussion with a processor, it is possible that the processor could take costly steps to attempt to comply with the regional delivery requirement. These efforts could be wasted, in the event a substantial IFQ holder chooses to redirect deliveries under the exemption.[20] Yet, the prerequisite of an agreement including the IPQ holder should prevent any such circumstance, since the agreement can define steps taken prior to exercising the exemption and possible compensation to the IPQ holder once the exemption is exercised.

IPQ holders are likely to require some level of notice prior to exercising the exemption (except in case of emergency). This type of notice requirement should ensure that processors are not expending substantial efforts to overcome the circumstance, only to have an IFQ holder redirect the landing under the exemption. Likewise, a compensation requirement in the contract could be carefully drafted to protect an IPQ holder should an IFQ holder exercise the exemption in a manner that unreasonably imposes excessive cost on the IPQ holder. These two provisions together should limit the extent to which any circumstance imposes an undue burden on an IPQ holder in the event a IFQ holder elects to use the exemption.

2.4.6 Effects on regions and communities

The regional landing requirements are intended to protect fiscal and economic interests in specific regions, and the communities within those regions. The exemption could affect the extent to which regional landing requirements are protected by those landing requirements.

[20] It should be noted that the exemption may be authorized, if the delivery is, in fact, prevented by a unforeseeable circumstance. For example, an agreement may include anticipated deadloss that would arise from delaying a delivery may be a basis for redirecting a landing under the exemption. An IPQ holder that does not have good communication with an IFQ holder may expend substantial effort to overcome an obstacle to a delivery, only to have the IFQ holder exercise the exemption.

Status quo

Under the status quo, holders of Class A IFQ and IPQ holders must abide by regional landing requirements without exception. Consequently, the only circumstance under which a region will not benefit from a landing from a regionally designated IFQ is if the IFQ is not used. Without an exemption, IFQ could be left unharvested, should an unanticipated circumstance prevent the harvest altogether or make the harvest cost prohibitive. In considering the effect of the status quo alternative, it should be noted that in most instances when landings are prevented by an unforeseeable circumstance, landings will be moved to another location within a region. Although the exemption is intended to apply only when deliveries are prevented, it is possible that some landings may be made outside the region under the exemption that might otherwise be rescheduled. For example, if a harvester has substantial crab on board when a delivery is prevented and no other facility is available to take a delivery within the designated region, that harvester may use the exemption rather than discard its harvest (and possibly reharvest the IFQ later). So, in considering the effects of the status quo on communities, one must consider where crab may be moved within a region, in the event a landing is prevented within that region to contrast with the movement of landings outside of the region under the exemption.

In considering the effects of regional landing requirements, it should be noted that those requirements provide no community specific benefit. As a result, regional landing requirements will only ensure that of additional offloads and processing take place in the region. That activity may not benefit a community or even the regional economy, if the processing occurs outside the boundaries of a community.[21] Under the status quo, if a an intended delivery is prevented and the IPQ holder simply delays processing in the same location, a community and regional benefit will arise comparable to that which might have occurred in the absence of the delay. If the IPQ holder arranges a delivery elsewhere in the region, but still within a community, the benefit of the landing will flow to that other community. Depending on the scope of processing and the tax regulations in the other community, it is possible that the benefit will differ. For example, if the landing is taken at a plant already operating, the benefit might be quite marginal. If the landing is taken at a plant that would not have operated but for the impediment to the delivery, the benefit could be more substantial than had the landing taken place as intended at a plant already gear up for the delivery. If the IPQ holder arranges for the delivery at a plant outside of a community, the benefit within the region could be quite minimal – substantially less than if the landing had occurred as originally intended. In the case of deliveries throughout a region that are prevented by an unanticipated circumstance, all benefit to the region (and any community within the region) would be lost.

The potential for landings to be redirected outside of communities differs across fisheries and regions. In the North region of the Bering Sea *C. opilio* fishery, where unanticipated circumstances might be most likely to arise, the potential to redirect landings away from communities is relatively limited. Areas in the region that are outside of communities are relatively exposed, and likely cannot safely support offloads and processing activities during the winter months when most processing occurs. In the St. Matthew Island blue king crab fishery, locations near St. Matthew Island (and not within any community) provide some protection from weather for processors. Much of the processing historically relied on these locations. In the Pribilof Island red and blue king crab fishery, most processing occurred historically in the Pribilof Island communities. Since the fisheries are relatively small, it is possible that the North processing in the St. Matthew Island blue king crab fishery could be consolidated with processing in the Pribilof Island red and blue king crab fishery in the Pribilofs. The effect of any unanticipated circumstances on the redistribution of processing within the North region in these fisheries cannot be predicted, but would depend on available resources. An unanticipated circumstance might redistribute

[21] Communities in the region may benefit from shared tax revenues from the State of Alaska depending on where the processor offloads.

landings to a different location, but the Pribilofs are the most likely location for processing. In the Western Aleutian Islands golden king crab fishery, the only plant to receive deliveries under the program to date is in Adak. Some participants have suggested that processing could take place in Atka in the future. If deliveries are prevented to Adak or Atka by an unanticipated circumstance, it is likely that landings would move to a different location, if a plant is made available. This movement of landings could be simply between these communities, but also could result in a loss of benefits to communities in the region, if those landings move to a location outside of any community.

If a delivery into a South region processor is prevented by an unforeseeable circumstance, it is likely that the processing would move to a different facility. In Dutch Harbor/Unalaska and Kodiak, it is possible that the processing would simply move to another local facility, unless the entire community is inaccessible. Any other processing location in the South is likely to have processing moved to a different community (or outside of any community) in the event that a delivery is prevented by an unforeseeable circumstance.

The exemption alternative

Under the exemption alternative, if an unanticipated circumstance prevents deliveries within a designated region that delivery may be redirected outside of the region. Since the exemption is relatively limited, requiring an IFQ holder to take all reasonable steps to avoid the need for exemption, it is unlikely to be used liberally or frequently. In cases when the exemption is applied, the community that would have hosted the landing and processing will lose tax revenues and could lose economic activity associate with the landing. In a few circumstances, the community's economic activity may be unaffected. For example, if the landing would have taken place at a floating processor within community boundaries, but with no interaction within the community, it is possible that only tax revenues would be affected. Also, if a platform in the community is inaccessible for a brief period, it is possible that the redirected landings are only a disruption of ongoing activity that do not affect the number of workers in the community or the community spending pattern of those workers or the plant.[22] In this case, economic activity in the community might be unaffected, but tax revenues would be lost. Only in the case of an obstacle to deliveries that would discontinue processing operations in the community for an extended period during which a plant closes are both tax revenues and economic activity in the community likely to be substantially affected. In these cases, the community impact could be dramatic.

The effects of any exemption will depend on the circumstances surrounding the redirected deliveries and the terms of the agreement between the IFQ holder, the holder of matched IPQ, and the regional representative. In cases of a few redirected deliveries in the course of a relatively long processing period, it is possible that the community could suffer little loss of economic activity. If the compensation agreement makes up for lost tax revenues, it is possible that the community may be unaffected by the exemption. On the other hand, if the exemption is granted for a large share of a community's processing activity, it could have a very different effect on the community's economy. In small communities, in which crab processing dominates the economy for a portion of the year, the loss of a substantial portion of the IPQ processing could have profound effects. Even an agreement requiring substantial compensation to the community may ineffectively compensate for lost economic activity, since payments will have a different effect on the community than economic activity. Alternatively, an agreement may provide for compensating landings. These landings may be a better substitute for the lost landings than payments, but an IFQ holder might not be able to commit to those deliveries for any redirected landings. So, payments may be the only feasible compensation for some exemptions.

[22] It is possible that an interruption in processing could increase economic activity, if plant workers spend more time interacting with the community, as a result of a hiatus in processing.

It should be noted that in some instances, a community that would have received a landing but for an unforeseeable circumstance could be better off under the exemption than with a strict requirement to comply with regional landing requirements. For example, under the status quo, IFQ may be either left unharvested or redirected to another community in a region by an IFQ holder that is unable to make a delivery to a community.[23] If the IFQ holder is able to use an exemption to redirect the landing to another region and is required to pay compensation to the community under the agreement, the community would be better off under the exemption. Arguably, movement of the processing within the region would leave the region in unaffected, but redistribution of landings among communities will affect those local economies.

Notwithstanding the case of movement of small numbers of landings, it is also important to consider circumstances that affect a large portion of a community's processing being redirected under an exemption. In these instances, it is likely that processing in the community will have been prevented for an extended period. Obligations to exert reasonable efforts to avoid the exemption and compensation provisions in the exemption agreement should prevent IFQ and IPQ holders from redirecting landings for simple convenience. The provisions should also prevent excessive abuse of the exemption, in the event a single location within a region is unavailable for deliveries, while processors may be accessible in other locations (or a processor can be brought to a location to support deliveries). Assuming deliveries are prevented in a region, without the exemption, these landings would not occur. If they occur under the exemption, the community would receive any compensation prescribed by the agreement (or alternatively the regional interest protected by the compensation provision would receive that compensation).

It should be noted that in each case described, it is assumed that community interests are well represented by the regional entity. Under any of the options for defining regional representation, it is possible that community and regional interests may not be aligned.

Under the first option, the right of first refusal holder would be given the contracting authority. Since IFQ may be used in a different location than the location holding the right of first refusal, it is possible that a different location may be represented in the contract. Overall, the distribution of interests among communities would parallel their historic processing interests in the qualifying years, but whether that distribution of interests continues (and whether it continues to apply to any specific shares) is uncertain. Consequently, it is possible that the community that benefits from the contract might be different from the community that loses processing because of the unanticipated circumstance. At the extreme, if processing were to move from a historic processing community in a fishery, then the community may derive a benefit from the fishery only through compensation that is paid when the exemption is exercised.

In addition, it is possible that the interests of the right holder (which is selected to represent the community with respect to processor share purchases and holdings) may diverge from the interests of the community in tax revenues and economic activity. In some instances, the holder of the right (or former holder of the right) may be the holder of shares at issue. The potential conflict is the most apparent when a PQS holder (that might have acquired shares under the right of first refusal) is also the regional representative with contracting authority related to the exemption. It is possible that the greatest value from the entity's PQS holdings would be realized under the exemption, while the community derives the

[23] It may be possible to delay a delivery that would qualify for an exemption until processing capacity can be made available within a region. The landing may qualify for the exemption, particularly if the only means of delaying the landing is to discard catch reserving the IFQ for later use. This landing would be made without exemption under the status quo, but could be made outside the region under the exemption alternative.

greatest benefit through local processing activity. In this circumstance, having the PQS holder acting as the regional contracting authority for the exemption would seem inappropriate.

Under the second option, the contracting authority is given to an entity selected by the community benefiting from the right of first refusal. This option could also suffer from the mismatch of interests that could arise, if shares are used outside of the community in which historic processing occurred. The option, however, attempts to address the potential misalignment of interests that could arise from the right holder (or possibly the PQS holder) representing regional interests in contracts defining the exemption.

Under the third option, a regional representative would be selected by all communities that benefited from the right of first refusal in a region. This option would reduce the potential for conflicts by allowing all communities that have historic interests during the qualifying period to influence the exemption contract. If the distribution of interests changes in the long run, it is possible that the representative entity could be unrepresentative of the community interests in the fisheries.

A fishery and regional distinctions should be considered when evaluating these different options and community effects. In the North region, with only two communities benefiting from rights of first refusal, it is more likely that the communities could work together under an option that relies on a regional entity selected by the communities to negotiate exemption contracts. In addition, with only two communities likely to support processing in the region in the foreseeable future, it is also more likely that community interests will be well represented under any of the options.

It is not clear how any of the options would apply in the West region of the Western Aleutian Islands golden king crab fishery. No communities hold rights of first refusal in that region, although rights of first refusal are used to define regional contracting entities under all options.

In the South region, several communities benefit from rights of first refusal and support processing. It is unclear whether rights of first refusal will remain aligned with the distribution of processing for any extended period. Notwithstanding this potential misalignment of interests, the likelihood of an unforeseeable circumstance meriting an exemption is lowest in the South region, as that area has several available facilities and processing locations that can be used for redirected landings.

2.4.7 Effects on management, monitoring, and enforcement

The status quo requires monitoring of an absolute rule requiring compliance with regional designations on IFQ and IPQ. The exemption alternative allows for an exemption from those requirements creating a slightly different management burden. This section discusses those differences.

Status quo

Under the status quo, managers monitor use of regionally designated IFQ and IPQ through the elandings system. Since compliance with designations is required without exception, oversight is simplified. Any violation could be tracked and verified through the elandings monitoring system, which creates a record of landings including IFQ and IPQ usage by facility.[24]

[24] Current records of landings for floating processors do not always include a specific processing location, instead labeling some landings as "at-sea". Although this shortcoming is not believed to have caused any complications in monitoring regional landing requirements to date, the absence of a recorded location at the time of landing could complicate monitoring in the future.

The exemption alternative

Under the exemption alternative, NOAA Fisheries managers will be required to oversee a few additional aspects of share holdings and usage. In the first instance, NOAA Fisheries will be required to assess the proper party to contract on behalf of regions with respect to the exemption contract. Depending on the option selected, this duty could involve receiving additional documentation from communities in a region verifying the selection of the entity and documentation from the entity, including documents verifying its establishment and persons who have contracting authority. These activities are similar to those undertaken with respect to rights of first refusal and should impose only a minor additional burden on managers.

Since exemptions will only be granted for IFQ and IPQ that are subject to a contract, NOAA Fisheries must also collect exemptions contracts for the different parties. Since most IFQ holders will deliver to multiple IPQ holders, it is likely that each IFQ and IPQ holder that wishes to have the exemption available will need to enter several contracts. The number of contracts could differ depending on the option selected for identifying the regional representative. If regions have multiple representative (such as each right of first refusal holder) more contracts will be required.

Once contracts are filed, the exemption is available upon the IFQ holder attesting to unanticipated circumstances preventing compliance with the requirements as specified by the terms of the contract. Any time an exemption is sought, NOAA Fisheries will need to process the affidavit of the IFQ holder attesting to the conditions allowing the exemption and identify both the IFQ and IPQ for which the exemption is requested. These shares will then be permitted to be landed outside of the designated region. To adequately implement the exemption, the affidavit must identify not only the IFQ and IPQ subject to the exemption, but also the specific contract authorizing the exemption and the regional party to the exemption contract.

Several aspects of the contract could require some actions on the parts of the parties. Notice may be required to the IPQ holder and applicable regional entities prior to the exemption. The IFQ holder (and possibly the IPQ holder) may be required to exert some level of effort to comply with regional landing requirements prior to the exemption being granted. These requirements may be generally stated in regulation, with more specificity in the applicable contract. Satisfaction of requirements such as these would be attested to in the affidavit to verify qualification for the exemption. On receipt of the affidavit, NOAA Fisheries would identify the IFQ and IPQ subject to the exemption. When those shares are used, NOAA Fisheries would record their use against the applicable accounts and, if used outside of the designated region, NOAA Fisheries would then identify their use as permitted (despite non-compliance with the regional landing requirement). Beyond documentation of usage and eligibility for the exemption, other aspects of exemption oversight and enforcement would be shifted to participants (including the regional entity).

By shifting contract performance oversight to the parties, NOAA Fisheries burden for overseeing performance (particularly performance of compensation requirements) is limited. Enforcement of contractual provisions will be through civil proceedings. Although this will require greater diligence on the parts of parties to the contract, administrative enforcement burdens are reduced. Parties will be required to enforce their own payment obligations under the contract and any other performance, such as possible obligations to land certain shares with certain processors or in certain communities as compensation for the exemption.

Although the shifting of management burdens to participants should reduce agency administration costs, the costs to participants may increase. These costs could be increased in several ways. First, with respect to the qualification for an exemption, it is possible that an affidavit could be challenged as fraudulent. In

most instances, however, parties will have limited information on which to challenge an affidavit. For example, an IFQ holder may file an affidavit based on a captain's contention that his vessel cannot safely reach a processor due to ice conditions, no other processor is available, and forecasted conditions suggest that crab will not survive until the conditions will improve. Assuming ice is present in the area at the time, it could be difficult for any party to successfully prove the affidavit was unwarranted.[25] The use of compensation is therefore an important deterrence to excessive use of the exemption. Consequently, limiting excessive use of the exemption requires that the parties be perceived as being able to adequately enforce compensation provisions. Costs of enforcement may depend on the choices of the regional entity to the contract. A relatively straightforward compensation provision is likely to provide little flexibility for IFQ and IPQ holders. Yet, the provision could be clear and simple to enforce. More complex compensation agreements could engender greater disputes and higher oversight and enforcement costs for the regional entity.[26]

The structure of the exemption alternative is intended to reduce management costs to NOAA Fisheries by shifting that burden to the affected parties. The extent of costs to parties will depend greatly on the choices of the parties in the exemption agreements and the complexities and costs of enforcing those arrangements.

3 Environmental Assessment

This EA tiers off of the Crab EIS to focus the analysis on the issues ripe for decision and eliminate repetitive discussions. The Crab EIS provides the status of the environment and analyzes the Crab Rationalization Program and its impacts on the human environment. The proposed action would create an exemption from the regional landing requirement associated with Class A IFQ, if compliance with that requirement is prevented by an unavoidable circumstance. This EA focuses on the specific impacts of the proposed action and provides details concerning the proposed action and its impacts.

The Council on Environmental Quality (CEQ) regulations encourages agencies preparing NEPA documents to "tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review":

> Whenever a broad environmental impact statement has been prepared (such as a program or policy statement) and a subsequent statement or environmental assessment is then prepared on an action included within the entire program or policy (such as a site specific action) the subsequent statement or environmental assessment need only summarize the issues discussed in the broader statement and incorporate discussions from the broader statement by reference and shall concentrate on the issues specific to the subsequent action. (40 CFR 1502.20)

In 40 CFR 1508.28, the CEQ regulations further define tiering as "the coverage of general matter in broader environmental impact statements … with subsequent narrower statements of environmental

[25] It is important to note that an alternative that would require agency administration of the exemption was considered and rejected because verification of circumstances preventing compliance with regional landing requirements was not deemed administrable.

[26] Since performance requirements can be renegotiated, it is possible that some regional entities will have relatively straightforward compensation agreements, but would be willing to accept performance of other actions, depending on the circumstances. For example, an initial agreement may provide only for financial compensation. Yet, a regional entity could subsequently agree waive those payments, but only after the IFQ and IPQ holder provide compensating deliveries.

analyses….incorporating by reference the general discussion and concentrating solely on the issues specific to the statement subsequently prepared."

This section of the CEQ regulations further notes that "tiering is appropriate when the sequence of statements or analysis is from a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis…." (40 CFR 1508.28).

3.1 Purpose and Need

The purpose and need for the proposed action is explained in the Council's problem statement:

> *In developing the crab rationalization program, the Council included several measures to protect regional and community interests. Among those provisions, the Council developed regional designations on individual processing quota and a portion of the individual fishing quota that require the associated catch to be delivered and processed in the designated region. Periodically, including at times in the first three years of the program, harbors in the Northern Region as defined in the program, are closed by the advance of the Bering Sea ice pack. These ice conditions have disrupted the crab fishery, contributing to safety risks and preventing harvesters from entering harbors to deliver to shore-based and floating processors located in the region, as required by the regional share designations. In addition, other unforeseeable events, events such as an earthquake or tsunami, or man-made disaster, could prevent deliveries or limit the available processing capacity in a region necessary for compliance with the regional designations on Class A IFQ and IPQ. A well-defined exemption from regional landing and processing requirements of Class A IFQ and IPQ that includes requirements for those receiving the exemption to take efforts to avoid the need for and limit the extent of the exemption could mitigate safety risks and economic hardships that arise out of unforeseeable events that prevent compliance with those regional landing requirements. Such an exemption should also provide a mechanism for reasonable compensation to communities harmed by the granting of the exemption to ensure that the community benefits intended by the regional designations continue to be realized despite the exemption.*

3.2 The alternatives

The Council is considering two alternatives for this action.

Status quo

(to be summarized from above)

The exemption alternative

(to be summarized from above)

Alternatives considered and eliminated from detailed study

(to be summarized from above)

3.3 Affected environment

Chapter 3 of the Crab EIS contains a complete description of the human environment, including the physical environment, habitat, crab life history, marine mammals, seabirds, crab fisheries, a management history, the harvesting sector, the processing sector, and community and social conditions. These descriptions are incorporated by reference. In addition to the factors discussed in the Crab EIS, this action specifically concerns the potential effects of an exemption from regional landing requirements, if unanticipated circumstances preventing compliance with those requirements. The regional impact review above discusses relevant economic and social background in detail. That discussion is also incorporated herein by reference. In addition to social and economic effects, this action could have some effect on discards in the fishery. As a result, a very brief description of discard mortality in the crab fisheries is presented here.

3.3.1 Discard mortality

In the various crab fisheries, discard mortality is estimated annually based on observer estimates of discards and assumed handling mortality rates. Discard mortality estimates for each species also include estimated mortality from groundfish fisheries. Assumed mortality rates are also applied to observer estimates of discards in these non-crab fisheries to fully account for crab mortality. All of these mortality estimates are incorporated into the TAC setting process to account for all crab mortality in the fisheries. The annual Bering Sea and Aleutian Island Stock Assessment and Fishery Evaluation provides a comprehensive summary of these estimates by fishery. In the directed crab fisheries, male crab mortality is comprised of directed retained catch and any discard mortality. Assumed mortality rates vary in the fisheries as estimated survivability of crab discards varies with species and prevalent conditions during fishing (most importantly air temperatures). Using an assumed discard mortality rate, total directed fishery mortality can be estimated in each fishery (see Table 16).

Table 16 Catch and mortality of male crab in directed crab fisheries in 1,000s of pounds (2005-2006 through 2007-2008).

Fishery	Season	Directed catch	Male observed discards	Total male catch	Total crab fishery male mortality
Bering Sea *C. opilio**	2005-2006	36,947	9,965	46,939	41,930
	2006-2007	36,356	12,995	49,351	42,854
	2007-2008	63,000	18,560	81,560	72,280
Bristol Bay red king crab**	2005-2006	18,518	2,923	21,441	19,103
	2006-2007	15,748	1,199	16,947	15,988
	2007-2008	20,512	2,150	22,662	20,942
Eastern Aleutian Islands golden king crab*	2005-2006	2,887	940	3,827	3,357
	2006-2007	2,887	594	3,481	3,184
	2007-2008	2,992	660	3,652	3,322
Western Aleutian Islands golden king crab*	2005-2006	2,689	1,649	4,338	3,514
	2006-2007	2,654	1,025	3,679	3,167
	2007-2008	2,270	723	2,993	2,632

Source: BSAI Crab SAFE 2008.

* assumed 50 percent discard mortality.

** assumed 20 percent discard mortality.

Crab fishery discards are estimated based on observer coverage, which is generally 10 percent on catcher vessels greater than 125 feet and 100 percent on catcher processors. With these coverage levels aberrant discard behavior may not be fully accounted for. The extent to which any extraordinary discards that

might be overlooked by observer data have occurred is not known, but is believed to be small. In addition, other forms of mortality (including ghost fishing of lost pots, direct gear impacts from pots landing on the bottom and trawl gear contact, and rail dumping) are not well documented but are considered in the TAC setting process.

3.3.2 Management of the fisheries

(summarized from above)

3.4 Analysis of the alternatives

This EA focuses on the specific impacts of the proposed action and provides details concerning the proposed action and its impacts. The proposed action, allowing an exemption to regional landing requirements on Class A IFQ when unanticipated circumstances prevent compliance with those requirements, modifies a specific provision of the crab fishery management. This EA tiers off of the Crab EIS to focus the analysis on the issues ripe for decision and eliminate repetitive discussions. Chapter 4 of the Crab EIS analyzes the Crab Rationalization Program and its impacts on the human environment. This EA incorporates by reference information on impacts of the Crab Rationalization Program on the human environment.

3.4.1 Effects on the social and economic environment

This section summarizes the effects on the social and economic environment from the Regulatory Impact Review above. The economic and social impacts differ in fundamental ways from other resource components examined in this EA. They deal with impacts on persons and on communities, while other impacts deal with the natural environment. Significance findings for social and economic impacts would not affect a finding of no significant impact (FONSI); see 40 *CFR* 1508.14.

Since the analysis of social and economic factors is largely qualitative, this analysis does not make precise findings of significance based on quantitative thresholds. Instead, significance findings are based on the qualitative analytical findings concerning whether an impact has a substantial impact. Any impact that is deemed to be substantial would be characterized as significant by in this analysis.

Status quo

(to be summarized from above)

3.4.2 Effects on administration, management, and enforcement

(to be summarized from above)

3.4.3 Effects on the physical and biological environment

This section examines the impact of the choice of alternatives on components of the physical or biological environment. The only potential physical or biological environmental effect is believed to be a potential affect on crab stocks. Consequently, this section only discusses the potential effect on crab stocks.

Status quo

Under the status quo, an IFQ holder must comply with regional landing requirements without exception. As a result, it is possible that in some rare circumstances an IFQ holder may be without IFQ to support a delivery outside the designated region and unable to acquire those IFQ at a reasonable price. If a vessel

has harvested crab intending to use IFQ in compliance with a delivery requirement, but is prevented by an unanticipated circumstance, that vessel must make alternative arrangments to comply with the landing requirement. Possible measures could be to delay the landing, locate another facility in the region that is able to accept the delivery, or use different IFQ that allow landing outside of the region.

In the extreme, it is possible that an IFQ holder who is unable to arrange delivery to an alternative location within the region and is unable to access IFQ to support the delivery outside the region could be forced to discard catch to avoid excessive deadloss (and receive value from the IFQ). The potential for such a discard is believed to be low, since the IFQ holder would need to incur the cost of reharvesting crab to receive value from the IFQ. This added cost is likely to be a substantial deterrent against any such discard. In addition, most IFQ holders are cooperatives with access to substantial amounts of IFQ that could be allocated among vessels to avoid any the need to discard to meet regional landing requirements.

The potential for unanticipated circumstances to prevent compliance with regional landing requirements varies by fishery and region. The North region in the Bering Sea *C. opilio* fishery is believed to be most likely to be subject to conditions that could prevent compliance with regional landing requirements. In that region during the peak season for harvests from the *C. opilio* fishery ice is known to descend from the North surrounding the Pribilof Islands, where all of the North region landings have historically occurred. These conditions can prevent vessels accessing the islands to make landings in the North region for as much as a week or two. In addition, the region has few processing facilities and safe processing locations. Since the program's implementation, all processing has occurred in and around St. Paul Island. St. George harbor was badly damaged in a storm in 2004. Although the harbor entrance has undergone repair dredging, some fishery participants believe the harbor still cannot be safely accessed. These factors limit the ability of participants to redirect landings within the region in the event a facility is disabled or a location is inaccessible.

While several factors may increase the potential for North region *C. opilio* deliveries to be interfered with and complicate IFQ holder responses, some factors should also limit the potential for IFQ holders to ever discard in response. Since the regionally designated IFQ in the fishery are divided almost equally between the North and the South region, only near the end of the season are there likely to be no IFQ from one region available. With planning, IFQ holders should be able to limit the potential for needing to discard to avoid excessive deadloss counting against IFQ allocations. Consolidation of IFQ in cooperatives should aid in this planning. Although the fishery is unlikely to support many North region processing plants, the processors are likely to maintain at least two platforms, one of which is likely to be a floating platform (which in some cases could be mobile). Multiple platforms in the region could provide harvesters with alternatives, in the event that deliveries cannot be made to one of the platforms.[27] Projecting the scale of any potential discards is particularly difficult, given the uncertainties that could surround unanticipated circumstances that might prevent deliveries in the region and responses of participants. As many as 40 vessels have made deliveries in a single week in the fishery under the program. Yet, these deliveries were made in midseason when most IFQ holders likely held substantial IFQ allowing deliveries outside of the North region. Late season, when IFQ accounts are likely to allow less flexibility, participation levels tended to be lower, with fewer than 20 vessels making deliveries in any week. Even so, IFQ holders unable to make deliveries are likely to look to other measures than discarding, leaving discarding catch to avoid deadloss as a last resort. Consequently, discarding of catch as a result of being unable to comply with regional landing requirements is unlikely to occur in any notable amounts.

[27] No alternative may be provided, if all processing takes place in St. Paul harbor, as has happened in the first and second year of the program.

Although the potential for unanticipated circumstances to prevent deliveries in a region in other fisheries is believed to be fairly remote, the potential for IFQ holders to be unable to respond to such a contingency is believed to be greatest in the West region of the Western Aleutian Islands golden king crab fishery. In the West region of that fishery, processing has occurred at a single facility in each of the first three years. In addition, catcher vessel harvests in that fishery have occurred on only two vessels in each of the first three years. Since half of the IFQ in the fishery are designated for West region landing and half are undesignated and may be landed in any location, IFQ holders are likely to have the ability to address unanticipated circumstances preventing West region deliveries, provided they have not reserved West region landings until the end of the season; however, in at least one of the first few seasons of the program, disputes concerning landings arrangements have delayed harvest of West region IFQ until late in the season. In addition, only a single facility has operated in the West region in each of the first three seasons. Given these circumstances, it is possible that an unanticipated circumstance preventing deliveries in the West region could lead to discards by IFQ holders that hold no IFQ allowing delivery outside of the West region. In any case, the discards that could arise are likely to be one or two full loads of crab at most. Since only two catch vessels fish in this fishery at current TACs and TACs have shown little fluctuation in the fishery, it is unlikely that discards would ever be more than two vessel loads (or 200,000 pounds).

Since the St. Matthew Island blue king crab and the Pribilof red and blue king crab fisheries have been closed for several years, it is difficult to predict the potential for any IFQ holders to be compelled to discard crab to avoid deadloss, in the event that unanticipated circumstances prevent compliance with regional delivery requirements. In those fisheries, in excess of two-thirds of the catcher vessel owner IFQ is designated for landing in the North region. The fisheries are historically prosecuted in the fall, prior to the Bristol Bay red king crab fishery. Since the fisheries have been closed, the opening has been delayed from its historic opening in early to mid September to October 15, which coincides with the Bristol Bay red king crab fishery. Since these fisheries are likely to have relatively small TACs and close after the New Year,[28] participants are likely to harvest IFQ during the fall. As a result, ice conditions are unlikely to interfere with landings, as they might in the Bering Sea *C. opilio* fishery. Although only a single processor might operate in these fisheries, it is likely that most IFQ holders will reserve their South landings until the end of their fishing to achieve efficiencies, since the South processing locations are relatively distant from the fishing grounds. These conditions taken together limit the potential for IFQ holders to be compelled to discard crab, as a result of a perceived inability to comply with regional landing requirements.

In the Bristol Bay red king crab fishery, less than 5 percent of the catcher vessel owner IFQ are required to be landed in the North region. Since most of the IFQ can be landed outside of the North region, IFQ holders are unlikely to confront situations under which they would be unable to access substitute IFQ allowing landings outside of the North region should unanticipated circumstance prevent North region deliveries for a period of time.

The potential for unanticipated circumstances to lead to discards in the South region are believed to be extremely remote. Several different locations and facilities can support landings in the South region. As such, it is unlikely that regional landing requirements are likely to force any discard of crab from vessels unable to make landings because of unanticipated circumstance.

[28] The St. Matthew Island blue king crab fishery the season closes on February 1st; and the Pribilof red and blue king crab fishery closes on the 15th of January.

In any of the fisheries, the potential for discards caused by the inflexibility of regional landing requirements is believed to be minimal. If such discards were to occur, it is believed that the amounts would be insignificant relative to allowable catches and overfishing limits. Of particulary relevance, overfishing limits accommodate substantial uncertainty in total mortality, such that discard mortality from a few vessels compelled to discard because of inability to comply with regional landing requirements because of unanticipated circumstances are would not harm stocks.

The exemption alternative

Under the exemption alternative, holders of IFQ subject to regional landing requirements who are able to come to terms with the holders of matched IPQ and regional representative and who are unable to comply with regional landing requirements because of unanticipated circumstances could obtain an exemption from those regional landing requirements. The exemption would require the IFQ holder to attest to conditions qualifying for the exemption and may require the IFQ holder to compensate the IPQ holder and regional interests for losses arising from the exemption. The terms of any compensation would be subject to agreement among the parties.

The exemption is likely to be limited by the terms of the agreement and will likely be used sparingly, as the compensation should deter any abuse of the exemption. In determining whether to use the exemption, an IFQ holder will need to compare the costs of using the exemption (and providing any compensation required by the exemption) and the costs of other measures (such as accessing IFQ that would allow delivery outside of the designated region). Yet, having the exemption available allows some IFQ holders an additional choice when faced with an unanticipated circumstance preventing a delivery that meets the criteria for the exemption. This additional outlet may serve to prevent some discards (and associated mortality), in the event an IFQ holder perceives the exemption as a reasonable alternative to chancing a wait for the condition preventing the delivery to pass.

Although the exemption may provide an outlet, the exemption is not likely to fully eliminate the possibility of an IFQ holder making discards to avoid IFQ use for excessive deadloss after waiting for an unanticipated circumstance preventing a regionally designated delivery to pass. In some cases, IFQ holders could misjudge the term of the circumstance or simply refuse to use the exemption because of the cost of compensation. In these cases, it is possible that discards could be made regardless of the availability of the exemption.

By providing an additional option to IFQ holders when confronted with an unanticipated circumstance that prevents compliance with a regional landing requirement, the exemption could reduce discards that might otherwise be made by IFQ holders. For these discards to be prevented, the IFQ holder must be willing to accept the terms of the agreement prior waiting for the condition to pass and risking associated deadloss. As a result, the extent to which the exemption prevents any discards will depend on several factors. The definition of the exemption and the compensation, both of which are subject to specification in the exemption contract will affect use of the exemption. Likewise, the number of qualifying circumstances and their timing will clearly affect use of the exemption. Lastly, choices of IFQ holders confronted with those circumstances will also affect the use of the exemption. IFQ holder facing barriers to their deliveries of uncertain length could choose to arrange for the delivery to be made elsewhere, wait in hopes of the circumstance passing, or use the exemption to make a delivery outside the region with the same IFQ. If the IFQ holder chooses to wait and the circumstance does not pass quickly, it is possible that the IFQ holder could also choose to discard to avoid deadloss counting against IFQ. Yet, the exemption may reduce discards arising from IFQ holders wishing to avoid deadloss. This reduction is likely to be quite marginal, as substantial discarding is not anticipated under the status quo, which allows for no exemption from regional landing requirements.

Cumulative Effects

Analysis of the potential cumulative effects of a proposed action and its alternatives is a requirement of NEPA. Cumulative effects are those combined effects on the quality of the human environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what Federal or non-Federal agency or person undertakes such other actions (40 CFR 1508.7, 1508.25(a), and 1508.25(c)). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The concept behind cumulative effects analysis is to capture the total effects of many actions over time that would be missed by evaluating each action individually. At the same time, the CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action on the universe but to focus on those effects that are truly meaningful.

Any cumulative effects arising out of this proposed action arise out of the relationship of the action to the overall Crab Rationalization Program.

(to be provided)

4 Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), first enacted in 1980, and codified at 5 U.S.C. 600-611, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are: 1) to increase agency awareness and understanding of the impact of their regulations on small business; 2) to require that agencies communicate and explain their findings to the public; and 3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse impacts on small entities as a group distinct from other entities and on the consideration of alternatives that may minimize the impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either, (1)“certify” that the action will not have a significant adverse effect on a substantial number of small entities, and support such a certification declaration with a “factual basis”, demonstrating this outcome, or, (2) if such a certification cannot be supported by a factual basis, prepare and make available for public review an Initial Regulatory Flexibility Analysis (IRFA) that describes the impact of the proposed rule on small entities.

Based upon an evaluation of the proposed alternatives, it appears that “certification” would not be appropriate. Therefore, this IRFA has been prepared. Analytical requirements for the IRFA are described below in more detail.

The IRFA must contain:

1. A description of the reasons why action by the agency is being considered;
2. A succinct statement of the objectives of, and the legal basis for, the proposed rule;
3. A description of, and where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);

4. A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
5. An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule;
6. A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable statutes, and that would minimize any significant adverse economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:
    a. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
    b. The clarification, consolidation or simplification of compliance and reporting requirements under the rule for such small entities;
    c. The use of performance rather than design standards;
    d. An exemption from coverage of the rule, or any part thereof, for such small entities.

The "universe" of the entities to be considered in an IRFA generally includes only those small entities that can reasonably be expected to be directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, or of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for purposes of this analysis.

In preparing an IRFA, an agency may provide either a quantifiable or numerical description of the effects of a proposed rule (and alternatives to the proposed rule), or more generally, descriptive statements if quantification is not practicable or reliable.

4.1 Definition of a Small Entity

The RFA recognizes and defines three kinds of small entities: 1) small businesses; 2) small non-profit organizations; and 3) and small government jurisdictions.

Small businesses: Section 601(3) of the RFA defines a "small business" as having the same meaning as a "small business concern," which is defined under Section 3 of the Small Business Act. A "small business" or "small business concern" includes any firm that is independently owned and operated and not dominate in its field of operation. The U.S. Small Business Administration (SBA) has further defined a "small business concern" as one "organized for profit, with a place of business located in the United States, and which operates primarily within the United States, or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor. A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust, or cooperative, except that where the form is a joint venture there can be no more than 49 percent participation by foreign business entities in the joint venture."

The SBA has established size criteria for all major industry sectors in the U.S., including fish harvesting and fish processing businesses. A business "involved in fish harvesting" is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates), and if it has combined annual receipts not in excess of $3.5 million for all its affiliated operations worldwide. A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates) and employs 500 or fewer persons, on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the $3.5 million criterion for

fish harvesting operations. A wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

The SBA has established "principles of affiliation" to determine whether a business concern is "independently owned and operated." In general, business concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party, with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern's size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community Development Corporations authorized by 42 U.S.C. 9805 are not considered affiliates of such entities, or with other concerns owned by these entities, solely because of their common ownership.

Affiliation may be based on stock ownership when: (1) A person is an affiliate of a concern if the person owns or controls, or has the power to control 50 percent or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) If two or more persons each owns, controls or have the power to control less than 50 percent of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors, or general partners control the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations: The RFA defines "small organizations" as any nonprofit enterprise that is independently owned and operated and is not dominant in its field.

Small governmental jurisdictions: The RFA defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.2 A description of the reasons why action by the agency is being considered

(to be summarized from above)

4.3 The objectives of, and the legal basis for, the proposed rule

Under the current regulatory structure, Bering Sea *C. bairdi* is managed by NOAA Fisheries and the State of Alaska under the FMP. The authority for this action and the FMP are contained in the Magnuson-Stevens Act, as amended by the Consolidated Appropriations Act of 2004.

4.4 A description of, and where feasible, an estimate of the number of small entities to which the proposed rule will apply

(to be completed for next draft)

4.5 A description of the projected reporting, recordkeeping, and other compliance requirements

(to be summarized from above)

4.6 An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule

The analysis uncovered no Federal rules that would conflict with, overlap, or be duplicated by the alternatives under consideration.

4.7 A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable statutes, and that would minimize any significant adverse economic impact of the proposed rule on small entities

The Council adopted for analysis the following alternatives:

1) No action, under which no exemption from regional landing requirements on catcher vessel owner Class A IFQ and IPQ allocations would be permitted.

2) The exemption alternative, under which

These alternatives comprise the suite of "significant alternatives" for purposes of the RFA.

(summarize possible alternatives not advanced for analysis and effects on small entities and affects of the two alternatives on small entities)

5 National Standards and Fishery Impact Statement

5.1 National Standards

Below are the ten National Standards as contained in the Magnuson-Stevens Act, and a brief discussion of the consistency of the proposed alternatives with each of those National Standards, as applicable.

National Standard 1

Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery

Nothing in the proposed alternatives would undermine the current management system that prevents overfishing. The proposed alternatives could result slight improvements in conservation and management of crab in the Bering Sea and Aleutian Islands.

National Standard 2

Conservation and management measures shall be based upon the best scientific information available.

The analysis draws on the best scientific information that is available concerning the fisheries. The most up-to-date information that is available has been provided by the managers of these fisheries, as well as by members of the fishing industry.

National Standard 3

To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The action has not effect on the definition of stocks for management purposes.

National Standard 4

Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

The proposed alternatives would treat all participants in the fisheries the same, regardless of their residences. The allocations in the fisheries among participants are unaffected by this action.

The total annual allocation in each fishery will be based on the fishery management plan that is developed to promote conservation of the resource. Any changes in a fishery, as a result of the Crab Rationalization Program, that impact conservation of the resource will be taken into account when setting the TACs in a year. Minor conservation benefits may arise from this action.

Limits on individual holdings or usage of allocations prohibit any individual from acquiring an excessive share of harvest privileges or controlling an excessive share of processing in the fisheries. The alternatives have no effects on the degree of consolidation in any sector.

National Standard 5

Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

The allocation alternatives proposed should improve efficiency in use of the resource by prevented excessive costs and potential waste.

National Standard 6

Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

Variations in fisheries, fishery resources and catches are addressed through changes in annual allocations. These changes in allocations will be used to ensure conservation of the resource in the future and are unaffected by this action.

National Standard 7

Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The alternatives will have minor affects on management costs, but minimize costs to the extent practicable by relying on participants and affected parties to represent and defend their interests.

National Standard 8

Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

Although the alternatives could affect community interests through the redirection of landings, adverse effects are minimized through allowing regional representatives to negotiate compensation requirements for redirected landings. The impacts of the rationalization program on communities are generally addressed in the Crab EIS. No further effects arise out of this action.

National Standard 9

Conservation and management measures shall, to the extent practicable, (A) minimize bycatch, and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

The exemption could assist in minimizing bycatch by allowing IFQ holders to redirect landings that are prevented by unanticipated circumstances. Allowing landings to be redirected could reduce deadloss, which might be discarded to avoid IFQ usage.

National Standard 10

Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The exemption alternative should reduce the incentive for vessel operators to expose vessels and crews to safety risks by allowing for an exemption from regional landing requirements, in the event landings are prevented by an unanticipated circumstance.

5.2 Section 303(a)(9) - Fisheries impact statement

Section 303(a)(9) of the Magnuson-Stevens Act requires that any management measure submitted by the Council take into account potential impacts on the participants in the fisheries, as well as participants in adjacent fisheries. The impacts of the alternatives for allocation of QS and PQS in the *C. bairdi* fisheries on participants in the harvester sector (including LLP license holders and captains) and processor sector have been discussed in previous sections of this document. This action will have no effect on participants in other fisheries.

6 References

In re Appeal of Aleutian Pribilof Island Community Development Association v. Snopac Products, Inc. (May 2, 2008) National Marine Fisheries Service, Alaska Region, Office of Administrative Appeals (Appeal No. 07-0003).

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NPFMC (2008). Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions. 2008 Crab SAFE. Compiled by the Plan Team for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands. North Pacific Fishery Management Council. Anchorage, AK. September 2008.

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