FINAL

Regulatory Impact Review

Western Aleutian Islands Golden King Crab Full Offload Delivery Exemption

March 2016

For further information contact:		Sarah Marrinan, North Pacific Fishery Management Council 605 W 4 th Ave, Suite 306, Anchorage, AK 99501 (907) 271-2809			
Abstract:	This Regulatory	Impact Review examines proposed management measures that			

Abstract: This Regulatory Impact Review examines proposed management measures that would apply exclusively to the Western Aleutian Island golden king crab (*Lithodes aequispinus*) fishery. The measures under consideration would create an exemption to the prohibition against continuing to fish in a Bering Sea/ Aleutian Islands Crab Rationalization Program fishery once off-loading has commenced and until all crab rationalization program crab are landed.

List of Acronyms and Abbreviations

"	£
	feet
ADF&G	Alaska Department of Fish and Game
BSAI	Bering Sea and Aleutian Islands
CFR	Code of Federal Regulations
COAR	Commercial Operators Annual Report
Council	North Pacific Fishery Management Council
CP	catcher/processor
CV	catcher vessel
E.O.	Executive Order
EA	Environmental Assessment
FMP	fishery management plan
FR	Federal Register
FRFA	Final Regulatory Flexibility Analysis
ft.	feet
IRFA	Initial Regulatory Flexibility Analysis
lb(s)	pound(s)
LLP	license limitation program
LOA	length overall
Magnuson-	Magnuson-Stevens Fishery Conservation
Stevens Act	and Management Act
mt	metric ton
Ν	North
NEPA	National Environmental Policy Act
NMFS	National Marine Fishery Service
NOAA	National Oceanographic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
Observer Program	North Pacific Groundfish Observer Program
PPA	Preliminary preferred alternative
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future action
RIR	Regulatory Impact Review
SBA	Small Business Act
Secretary	Secretary of Commerce
TAC	total allowable catch
U.S.	United States
VMS	vessel monitoring system
W	West
L	

1	INTRODUCTION	5
	1.1 Purpose and Need	
	1.2 History of this Action.	
•	1.3 Description of Action Area	
2	DESCRIPTION OF ALTERNATIVES	
	2.1 Alternative 1, No Action	
	 Alternative 2: Exemption to Full Delivery Requirements (PA) Council Rationale for the PA 	
3	REGULATORY IMPACT REVIEW	
3		
	 3.1 Statutory Authority 3.2 Purpose and Need for Action 	
	3.3 Alternatives	
	3.4 Methodology for analysis of impacts	
	3.5 The Western Aleutian Islands Golden King Crab Fishery	
	 3.5.1 The Historical LLP Fishery 3.5.2 The Fishery under the Rationalization Program	
	3.5.3 Harvesting Operations	
	3.5.4 Processing Operation	
	3.5.5 AI Communities	
	3.5.5.2 Atka	
	3.6 Analysis of Impacts: Alternative 1, No Action	
	3.6.2 State Management Under the No Action Alternative	
	3.6.2.1 Observer Coverage and Sampling Duties	
	3.6.2.2 Reporting Requirements (Observers and Dockside Samplers)	
	3.6.2.3 At-Sea Sampling (Observers Only)	
	3.6.2.4 Retained Catch Sampling (Observers and Dockside Samplers)	
	3.6.2.5 CPUE Estimation and Non-Retained Fishery Catch	
	3.7 Analysis of Impacts: Alternative 2, Exemption to Full Offload Delivery Requirements (Preferred Alternativ	
	3.7.1 Impacts on Harvesters	
	 3.7.2 Impacts on Processors and Communities	
	3.7.4 Impacts on Federal Management Measures	
	3.7.5 Impacts on State Management Measures	
	3.7.6 Impacts on Enforcement Measures	
	3.8 Summation of the Alternatives with Respect to Net Benefit to the Nation	
4	MAGNUSON-STEVENS ACT	
	4.1 Magnuson-Stevens Act National Standards	
5	PREPARERS AND PERSONS CONSULTED	34
6	REFERENCES	35
A	PENDIX	36

Table of Contents

List of Tables

Table 3-1	TACs, catch, and participation by operation type in the Western Aleutian Islands golden king crab fishery (2000/1 through 2013/14 seasons)	.13
Table 3-2	Season opening and closing in the Western Aleutian Islands golden king crab fishery (2001/2 through 2004/5 seasons)	.13
Table 3-3	Quota share holdings by share type, region, and operation type in the Western Aleutian Islands golden king crab fishery (2013/2014)	.15
Table 3-4	Processor quota share holdings by region in the Western Aleutian Islands golden king crab fishery (2013/2014)	.16
Table 3-5	Pot usage and catches in the Western Aleutian Islands golden king crab fishery (2000/1 through 2013/14)	.17
Table 3-6	Seasons and deliveries in the Western Aleutian Islands golden king crab fishery (2005/6 through 2013/14)	.17
Table 3-7	Active catcher vessels and number of landings for West region and undesignated IFQ (2005/6 through 2013/14)	.18
Table 3-8	Estimated golden king crab ex vessel prices and first wholesale prices (crab sections), 2001 through 2014 (dollars/pound)	

List of Figures

Figure 1-1 Aleutian Islands, Area O, king crab management area7	7
---	---

1 Introduction

This document analyzes proposed management measures that would apply exclusively to the Western Aleutian Islands golden king crab (WAG) (*Lithodes aequispinus*) fishery. The amendment under consideration includes allowing for an exemption from the prohibition against continuing to fish in a Bering Sea/Aleutian Islands (BSAI) crab rationalization (CR) program fishery once off-loading has commenced and until all CR crab are landed. This document is a Regulatory Impact Review (RIR).¹ An RIR provides assessments of the economic benefits and costs of the alternatives, as well as their distribution. This RIR addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act (Magnuson Stevens Act), the National Environmental Policy Act (NEPA), and Presidential Executive Order 12866. An RIR is a standard document produced by the North Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) Alaska Region to provide the analytical background for decision-making.

1.1 Purpose and Need

The Council identified the following purpose and need in June 2015:

The purpose of this action is to create an exemption for WAG from the regulations that prohibit the continuation of a fishing trip subsequent to a partial offload of crab in the CR program. This regulatory exemption would allow vessels prosecuting the WAG fishery to make partial deliveries of crab and then continue fishing before fully offloading all harvested crab.

This action was specifically identified for the WAG fishery due to 1) the remote and economically challenging characteristic of the fishery, 2) the possibility of mutual benefits to harvesters, the local processor, and the community, and 3) consistency with previous Council action that intended to encourage entrepreneurial activity related to fisheries in the Western Aleutian Islands. Beginning in 2011/2012, regulations began allowing for an exemption from the West-designated delivery requirement for WAG, due to the lack of sufficient processing availability in this region. The intent of this designation was to induce the development of processing in the region, when such development is feasible. Although regional delivery exemptions may still be necessary, this action is consistent with the original intent to facilitate local crab processing.

For example, the proposed action would allow vessels harvesting WAG to deliver partial loads of live crab to Adak opportunistically; when markets and commercial airline transportation are available. While the processing plant in Adak cannot currently economically justify accepting and processing a full offload from catcher vessels (CVs) prosecuting this fishery, the processor can accept small deliveries of live crab product to be packed and shipped via commercial airline. Eliminating the full offload regulation for this specific fishery could allow vessels a better opportunity to supply a small delivery of WAG to Adak, without subsequently incurring the harvest inefficiency costs associated with traveling significant distances to deliver a partially load of WAG, say in Dutch Harbor. Depending on the magnitude of this economic inefficiency, this could discourage harvesters from taking advantage of the live market opportunity. Instead, the proposed action would permit vessels harvesting WAG to do partial deliveries and continue harvesting crab before fully offloading at a processor that will accommodate the full volume of crab onboard these CVs.

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 effects of the action are socio-economic in nature, and require primarily management and enforcement consideration. As such, it is categorically excluded from the need to prepare an Environmental Assessment.

1.2 History of this Action

In February 2015, the Council heard public testimony and received several comment letters from crab industry representative and representatives of Adak seeking an exemption from a prohibition on partial offloads in the Federal regulations for crab rationalization fisheries (see appendix). In staff tasking at the February meeting, the Council initiated an analysis on this issue.

The Council received the Initial Review Draft of the analysis in June 2015. At that time, it adopted the purpose and need and established Alternative 2 as a Preliminary Preferred Alternative (PPA). The Council requested the document be released for Public Review, subsequent to the incorporation of Scientific and Statistical Committee comments.

In October 2015, the Council received an expanded analysis, the Public Review Draft, addressing its concerns about creating incentives for increased illegal discarding or incentives for crab harvesters to conduct unrepresentative fishing state observers were present. Based on the expanded analysis, the Council chose to recommend the action alternative as its Preferred Alternative (PA).

1.3 Description of Action Area

This exemption described in the PA would only apply to the apportionment of the Aleutian Island golden king crab (AIGKC) stock in the Western management region (WAG). The AIGKC stock falls into Area O State of Alaska management area, as described in Baechler and Cook (2014, page 7):

Area O has as its eastern boundary the longitude of Scotch Cap Light (164° 44' W long.), its northern boundary a line from Cape Sarichef (54° 36' N lat.) to 171° W long., north to 55° 30' N lat., and as its western boundary the Maritime Boundary Agreement Line between the U.S and Russia. Area O encompasses both the waters of the Territorial Sea (0–3 nautical miles) and waters of the Exclusive Economic Zone (3–200 nautical miles).

The total allowable catch (TAC) is apportioned east and west of 174° W longitude as can be identified in Figure 1-1. Action in this analysis only applies to the WAG fishery, which is west of 174° W longitude.

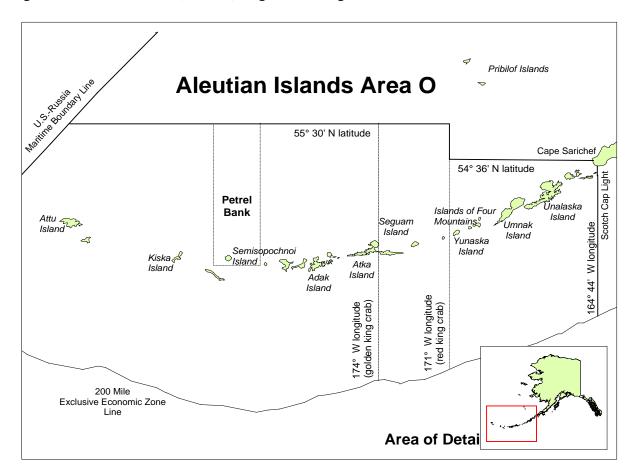


Figure 1-1 Aleutian Islands, Area O, king crab management area

2 Description of Alternatives

The Council formally established the following alternatives in June 2015. In October 2015, the Council adopted the action alternative, Alternative 2, as its PA:

- Alternative 1: No action. Status quo is maintained. Vessels are prohibited from resuming fishing for CR crab on board a vessel, once a landing has commenced and until all CR crab are landed.
- Alternative 2: (PA) Create an exemption from the prohibition from resuming fishing for CR crab on board a vessel, once a landing has commenced and until all CR crab are landed, for vessels harvesting WAG.

2.1 Alternative 1, No Action

Alternative 1 would maintain the current regulation 50 CFR 680.7, which states:

In addition to the general prohibitions specified in §600.725 of this chapter, it is unlawful for any person to do any of the following:

(b) Landing CR crab

(3) Resume fishing for CR crab or take CR crab on board a vessel once a landing has commenced and until all CR crab are landed.

In other words, once a vessel begins an off-load of a crab species that is part of the CR program, they may not harvest more crab associated with the program, with that vessel, until all crab have been completely off-loaded from the vessel.

Regulations do not prohibit partial off-loads of CR crab at multiple locations. Therefore, small deliveries to a plant, such as in Adak, may occur under the current regulatory regime. The primary distinction is that vessels would not be permitted to *resume fishing* until the remainder of crab on the vessel is off-loaded.

2.2 Alternative 2: Exemption to Full Delivery Requirements (PA)

The action alternative would allow crab harvesters the option of landing a partial load of WAG, then resume fishing for WAG. This alternative would directly affect a small number of participants. In recent years, there have been two CVs participating in this fishery (refer to Section 3.5.2). Section 3.5.2 discusses the original intent of this regulation and Section 3.6.1 discusses additional considerations for management and enforcement under Alternative 2.

Creating this exemption would require a Federal regulatory amendment. It would not require an FMP amendment and it is not expected to require State regulation changes.

2.3 Council Rationale for the PA

The Council provided additional explanation for its recommendation of Alternative 2 during deliberation in October 2015. Specifically, the Council stated this action worked towards the goals of a number of National Standards, without requiring tradeoffs between them. By allowing harvesting vessels to make small deliveries to Adak, then continue fishing golden king crab in the Western Aleutians, when market

opportunities are available, Council members stated that particularly National Standards 5, 8, and 9 are addressed. This action encourages economic efficiency; it could benefit the Western Aleutian communities of Adak and, potentially, Atka; and possibility even reduces deadloss waste. It is minimally disruptive to state monitoring and does not change how retained catch or total catch accrues. In addition, the Council believes this action encourages new product and market development, a specific goal of the CR program.

3 Regulatory Impact Review

This Regulatory Impact Review (RIR)² examines the benefits and costs of a proposed regulatory amendment to allow for an exemption in the WAG fishery from the prohibition against continuing to fish in a Bering Sea/ Aleutian Islands (BSAI) Crab Rationalization (CR) Program fishery once off-loading has commenced and until all Crab Program crab are landed. This section includes a description of the current WAG fishery, an analysis of the potential effects of the proposed action, and management and enforcement components important to consider under the proposed action alternative. This section concludes in an evaluation of the net benefits to the Nation.

The preparation of an RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735: October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following Statement from the E.O.:

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 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:

- 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.

3.1 Statutory Authority

Under the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act) (16 USC 1801, *et seq.*), the United States has exclusive fishery management authority over all marine fishery resources found within the exclusive economic zone (EEZ). The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in the regional fishery management councils. In the Alaska Region, the Council has the responsibility for preparing fishery management plans (FMPs) and FMP amendments for the marine fisheries that require conservation and management, and for submitting its recommendations

² The proposed action has no potential to effect individually or cumulatively on the human environment (as defined in NAO 216-6). The only effects of the action are socio-economic, as analyzed in this RIR. As such, it is categorically excluded from the need to prepare an Environmental Assessment.

to the Secretary. Upon approval by the Secretary, NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine and anadromous fish.

The WAG fishery in the Exclusive Economic Zone off Alaska is managed under the FMP for Bering Sea/ Aleutian Island King and Tanner Crabs. The proposed action under consideration would *not* amend this FMP; however, it would amend Federal regulations at 50 CFR 680. Actions taken to amend regulations governing these fisheries must meet the requirements of Federal law and regulations.

3.2 Purpose and Need for Action

The Council identified the following purpose and need in June 2015:

The purpose of this action would be to create an exemption for WAG from the regulations that prohibit the continuation of a fishing trip subsequent to a partial offload of crab in the CR program. This regulatory exemption would allow vessels prosecuting the WAG fishery to make partial deliveries of crab and then continue fishing, before fully offloading all harvested crab.

Specifically, the proposed action would allow vessels harvesting WAG to deliver partial loads of live crab to Adak opportunistically; when markets and commercial airline transportation are available. While the processing plant in Adak cannot currently economically justify accepting and processing a full offload from catcher vessels (CVs) prosecuting this fishery, the processor can accept small deliveries of live crab product to be packed and shipped via commercial airline. Eliminating the full offload regulation for this specific fishery could allow vessels a better opportunity to supply a small delivery of WAG to Adak, without subsequently incurring the harvest inefficiency costs associated with traveling significant distances to deliver a partially load of WAG, say in Dutch Harbor. Depending on the magnitude of this economic inefficiency, this could discourage harvesters from taking advantage of the live market opportunity. Instead, the proposed action would permit vessels harvesting WAG to do partial deliveries and continue harvesting crab before fully offloading at a processor that will accommodate the full volume of crab onboard these CVs.

This action was specifically identified for the WAG fishery due to: 1) the remote and economically challenging characteristic of the fishery; 2) the possibility of mutual benefits to harvesters, the local processor, and the community; and 3) consistency with previous Council action that intended to encourage entrepreneurial activity related to fisheries in the Western Aleutian Islands. Beginning in 2011/2012, regulations began allowing for an exemption from the West-designated delivery requirement for WAG, due to the lack of processing availability in this region. The intent of this designation was to induce the development of processing in the region, when such development is feasible. Although regional delivery exemptions may still be necessary, this action is consistent with the original intent to facilitate local crab processing. The Council is considering regulatory flexibility in order to provide opportunity for market expansion, potentially benefiting harvesters, the city of Adak, and the consuming public.

3.3 Alternatives

The Council formally established the following alternatives in June 2015. In October 2015, the Council adopted the action alternative, Alternative 2, as its PA:

Alternative 1: No action. Status quo is maintained. Vessels are prohibited from resuming fishing for CR crab on board a vessel once a landing has commenced and until all CR crab are landed.

Alternative 2: (PA) Create an exemption from the prohibition from resuming fishing for CR crab on board a vessel once a landing has commenced and until all CR crab are landed for vessels harvesting WAG.

3.4 Methodology for analysis of impacts

The evaluation of impacts in this analysis is designed to meet the requirement of E.O. 12866, which dictates that an RIR evaluate the costs and benefits of the alternatives, to include both quantifiable and qualitative considerations. Additionally, the analysis should provide information for decision makers "to maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach." The costs and benefits of this action with respect to these attributes are described in the sections that follow, comparing the No Action Alternative 1 with the action alternative. The analyst then provides a qualitative assessment of the net benefit to the Nation of each alternative, compared to no action.

This analysis was prepared using data from the ADF&G fish tickets, information from Commercial Operators Annual Reports (COAR) containing production data self-reported annually, and reports from Restricted Access Management (RAM) on quota share holdings. Information from these sources represents the best available information for describing the WAG fishery and participants.

3.5 The Western Aleutian Islands Golden King Crab Fishery

This section provides relevant information on the WAG fishery. It begins with a discussion of the historical pre-rationalization management through the License Limitation Program (LLP) fishery. Next this section highlights relevant elements of the CR program and statistical information on current activity in the fishery. Much of this information is confidential, due to the limited number of both harvesters and processors that have participated in the recent past. The section concludes with a description of the communities directly impacted by the proposed action.

3.5.1 The Historical LLP Fishery

Prior to implementation of the rationalization program on April 1, 2005, the BSAI crab fisheries were managed under the LLP. Under that program, 28 licenses carried endorsements authorizing participants in the AIGKC crab fisheries (including both the Eastern and Western fishery). Despite a relatively constant TAC leading up to implementation of the rationalization program, the license limits were not constraining and the fishery did not attract the level of competition of other crab fisheries (see Table 3-1). Pots used to fish for golden king crab in the Aleutian Islands area must be operated from a shellfish longline and not all vessels are configured to accommodate this type of operation. That fact, along with the fishery's small TAC and distant and relatively limited grounds are believed to have been deterrents to entry to those qualified under the LLP. Since implementation of crab rationalization, the fishery has, in most years, consisted of two active CVs. Historically, there was also one active catcher processor (CP), which has recently been converted to a CV (Linda Kozak, 5/4/2015, personal communication) and moved out of this fishery. With the exception of 2006/07 through 2008/09 seasons and the 2014/15 season, nearly 100 percent of the TAC has been harvested, primary by these few vessels.

			Percent of TAC		els	
Season	TAC (lbs)	Catch (lbs)	harvested	Catcher vessels	Catcher processors	All unique vessels
2000-2001	2,700,000	2,902,518	107.5	11	1	12
2001-2002	2,700,000	2,693,221	99.7	8	1	9
2002-2003	2,700,000	2,605,237	96.5	5	1	6
2003-2004	2,700,000	2,637,161	97.7	5	1	6
2004-2005	2,700,000	2,639,862	97.8	5	1	6
2005-2006	2,430,000	2,384,568	98.1	2	1	3
2006-2007	2,430,000	1,984,089	81.6	2	1	3
2007-2008	2,430,000	2,183,936	89.9	2	1	3
2008-2009	2,551,500	2,252,119	88.3	2	1	3
2009-2010	2,551,500	2,385,570	93.5	2	1	3
2010-2011	2,551,500	2,537,163	99.4	2	1	3
2011-2012	2,551,500	2,536,749	99.4	2	1	3
2012-2013	2,682,000	2,654,648	99.0	3	1	4
2013-2014	2,682,000	2,672,524	99.6	3	0	3

Table 3-1TACs, catch, and participation by operation type in the Western Aleutian Islands golden king crab
fishery (2000/1 through 2013/14 seasons)³

Source: AKFIN, April 27, 2015

Table orginates from WAG_Data(04-27)-1 and AI Golden King Crab Tables

Despite relatively low participation levels in the years leading up to implementation of the CR program, the fishery did exhibit signs of increased effort. As seen from Table 3-2, the seasons progressively shortened during the four years leading up to implementation of the rationalization program.

Table 3-2	Season opening and closing in the Western Aleutian Islands golden king crab fishery (2001/2
	through 2004/5 seasons)

Season	Season opening	Season closing		
2001-2002		March 30		
2002-2003	August 15	March 8		
2003-2004	August 15	February 6		
2004-2005		January 3		

Source: ADFG Annual Management Report

Table orginates from AI Golden King Crab Tables

³ This does not include Adak Community Allocation (ACA) during rationalized seasons.

3.5.2 The Fishery under the Rationalization Program

In August of 2005, fishing in the major BSAI crab fisheries began under a new share-based management program (the crab rationalization or CR program). The CR program rationalizes the large crab fisheries in the BSAI, specifically the following nine:

- 1. Bristol Bay red king crab
- 2. Bering Sea C. opilio (snow crab)
- 3. Eastern Bering Sea C. bairdi (Tanner crab) East of 166° W
- 4. Western Bering Sea C. bairdi (Tanner crab) West of 166° W
- 5. Pribilof Island blue and red king crab
- 6. St. Matthew Island blue king crab
- 7. Western Aleutian Islands (Adak) golden king crab West of 174° W
- 8. Eastern Aleutian Islands (Dutch Harbor) golden king crab East of 174° W
- 9. Western Aleutian Islands (Adak) red king crab West of 179° W

Among the many unique program elements and corresponding regulations established upon CR program implementation, a regulation requiring vessels to fully offload all CR crab before resuming fishing was also established (see 70 FR 10174). This regulation was intended to address concerns leading up to the CR program, that undesirable crab (e.g., overages, deadloss, or barnacled crab) could be discarded without being accounted for. This regulation primarily addressed an enforcement issue, but also had the effect of simplifying port sampling and catch accounting.

Background information on the quota shareholders, on both the harvesting and processing side that could be impacted by the action, is also important for this potential action. Under the CR program, holders of LLP licenses endorsed for a fishery were issued vessel owner quota shares (QS), which are long term access privileges, based on their qualifying harvest histories in that fishery. CP license holders were allocated CP vessel owner QS for their history as CP. CV license holders were issued CV QS based on their history as a CV. QS annually yields individual fishing quota (IFQ), which are privileges to harvest a particular amount of crab, in pounds, in a given season. The size of each annual IFQ allocation is based on the amount of QS held, in relation to the QS pool in the fishery. So, a person holding 1 percent of the QS pool would receive IFQs to harvest 1 percent of the annual TAC in the fishery. Ninety percent of the CV owner IFQs are issued as "A shares" or "Class A IFQ," which must be delivered to a processor holding unused individual processor quota (IPQ). The remaining 10 percent of these annual IFQs are issued as "B shares" or "Class B IFQ," which may be delivered to any processor.⁴ Processor quota shares (PQS) are long term privileges issued to processors. These PQS yield annual IPQ, which represent a privilege to receive a certain amount of crab harvested with Class A IFQ. IPQ are issued for 90 percent of the TAC, creating a one-to-one correspondence between Class A IFQ and IPQ.

In addition to processor share landing requirements, Class A IFQ (along with IPQ) are, under the program, subject to regional landing requirements, under which harvests from those shares must be landed in specified geographic regions. For the WAG fishery, 50 percent of the Class A IFQ is undesignated, which means that it can be delivered to any processor with corresponding IPQ, and 50 percent is designated for delivery in the West region, which is west of 174° W longitude, to any processor with corresponding West designated IPQ.

⁴ The terms "A share and "Class A IFQ" are used interchangeably in this paper, as are the terms "B share" and Class B IFQ."

Regional designations were applied to harvester QS during the initial allocation, based on landings histories, but adjustments were necessary as substantially less than 50 percent of the historical landings were made in the West region. The West designation was intended primarily to aid the development of processing in the community of Adak. Adak had little historical processing prior to the end of the qualifying period, as the community was occupied exclusively by the U.S. military during the development of the AI commercial fisheries. With the departure of the military in the late 1980s, the community has worked to develop civilian industries, including fish processing. Atka is recognized as a second potential beneficiary of the region designation. That community has also begun to develop fish processing capacity in recent years, but has yet to develop significant crab processing capability.

Under the rationalization program, quota shares were allocated based on historical harvesting activity in the fishery. With few participants having such history, initial allocations of QS were very concentrated, and have remained very concentrated (see Table 3-3). All total, there were 14 owner QS holders and 8 crew QS holders in the fishery. Of the owner QS pool, the mean percent holding is 7.1, while the maximum percent holding is 45.7. Of the crew QS pool, the mean percent holding is 12.5 percent, while the maximum percent holding is 41.7 percent.

Table 3-3	Quota share holdings by share type, region, and operation type in the Western Aleutian Islands
	golden king crab fishery (2013/2014)

	Share holdings by region and operation type						Across regions and operation types		
	Region/Catcher		Percent of	Mean %	Maximum %	QS	Mean %	Maximum %	
Share type	processor	QS holders	pool	holding	holding	holders	holding	holding	
	Undesignated	11	26.9	2.4	11.0				
Owner quota shares	West	8	26.9	3.4	13.5	14	7.1	45.7	
	Catcher processor	3	46.2	15.4	45.7				
Crew quota shares	Catcher vessel	7	57.5	8.2	21.7	8	12.5	41.7	
Crew quota shares	Catcher processor	2	42.5	21.3	41.7	0	12.5	41.7	

Source: AKFIN, April 27, 2015

Table orginates from WAG_Data_QS(04-27) & WAG_Data_QS(04-29) and AI Golden King Crab Tables

As would be expected in this relatively small fishery, PQS holdings are relatively concentrated, with only 9 PQS holders with a mean percent holding of 11.1 and a maximum percent holding of 30.1 (see Table 3-4). Initial allocations of PQS were made based on processing history in the fishery. Processors operating plants in the West region at the time of the initial allocation received their allocations in West designated PQS, while others received their allocations as divided equally between West designated PQS and undesignated PQS. To some extent, holdings are concentrated by area with a single holder having in excess of 50 percent of the West designated shares and three holders controlling in excess of 95 percent of the shares in that region. This level of concentration would typically benefit shareholders, by allowing consolidation of processing activity. In the first four years of the program, complete consolidation of West region processing activity was prevented by the processing share cap, which permitted no more than 30 percent of the pool from being held by or processed at the facility of a single person. An exemption from that cap now allows unlimited processing at a single facility in the West region (including the processing of all landings with undesignated shares).

	Sh	Overall share holdings					
Region	Number of PQS	Percent of	Mean %	Maximum %		Mean %	Maximum %
	holders	pool	holding	holdings	PQS holders	holding	holdings
Undesignated	7	50	7.1	29.7	9	11.1	30.1
West	6	50	8.3	26.5	5		

Table 3-4 Processor quota share holdings by region in the Western Aleutian Islands golden king crab fishery (2013/2014)

Source: AKFIN, April 27, 2015

Table orginates from WAG_Data_QS(04-27) & WAG_Data_QS(04-29) and AI Golden King Crab Tables

In April 2011, an amendment to the CR program established regulations for eligible contract signatories in the WAG fishery to apply for an exemption to the West regional delivery requirements that would otherwise apply to all West-designated IFQ and IPQ holders.⁵ In the WAG fishery, participants in the past had voiced concerns with processing capacity in the West region. In August of 2010, the operator of the Adak shoreplant filed for bankruptcy. Closure of the Adak plant precluded CVs from delivering crab harvested with their West-designated IFQ. West-designated IPQ holders lacked a facility to process crab with their West-designated IPQ. To address this issue, the Council recommended and the Secretary approved Amendment 37. The regulations allow the signatories to complete an application to NMFS requesting an exemption from the West regional delivery requirements. Eligible participants could submit an application to NMFS anytime during the crab fishing year. Upon approval of the application, NMFS exempts all West-designated Class A IFQ and IPQ from the West delivery requirements for the remainder of the crab fishing year. Such an exemption enables all West-designated Class A IFQ and IPQ holders to deliver and receive WAG at processing facilities outside of the West region. Since implementation of Amendment 37, NMFS has approved an application for annual exemption for the WAG fishing for the 2011/2012 season through the 2014/2015 season.

The few QS holders in the fishery have used measures provided by the rationalization program to concentrate activity in the fishery beyond their QS holdings. Exclusive allocations have been organized in harvest cooperatives, reducing the fleet to two catcher vessels and a single catcher processor, all of which have fished only cooperative allocations. In each year since implementation of the program, in excess of 99 percent of the annual IFQ has been allocated to cooperatives that have formed in the fishery. Gains arising from IFQ are also suggested by the changes in pot usage, pot lifts, and catch per unit effort in the fishery (Table 3-5). Immediately following implementation of the crab rationalization program, the number of registered pots in the WAG fishery dropped sharply, but in the most recent two years has increased. Also dropping significantly after implementation of the crab rationalization program was the number of pot lifts and the number of lifts per registered pots. Average catch per unit of effort and pounds per pot lift has been declining since the 2012/13 season.

⁵ Contract signatories include quota shareholders with 20 percent of the West-designated quota share, and the municipalities of Adak and Atka.

Season	Number of pots registered	Number of pot lifts	Lifts per registered pot	Average catch per unit effort	Registered pots per vessel	Pounds per pot lifts	Deadloss (in pounds)	Deadloss per pound of catch
2000-2001	8,910	101,239	11.4	7	743	29	53,158	0.018
2001-2002	8,491	105,512	12.4	7	943	26	43,519	0.016
2002-2003	6,225	78,979	12.7	8	1,038	33	32,101	0.012
2003-2004	7,140	66,236	9.3	10	1,190	40	49,321	0.019
2004-2005	7,240	56,846	7.9	12	1,207	46	43,560	0.017
2005-2006	4,900	27,503	5.6	21	1,225	87	26,500	0.011
2006-2007	4,500	22,694	5.0	20	1,125	87	19,768	0.010
2007-2008	4,800	25,287	5.3	21	1,200	86	23,183	0.011
2008-2009	4,900	22,351	4.6	23	1,225	101	22,802	0.010
2009-2010	5,050	22,746	4.5	25	1,263	105	33,069	0.014
2010-2011	4,675	26,587	5.7	21	1,169	95	32,628	0.013
2011-2012	4,292	22,586	5.3	24	1,073	112	33,075	0.013
2012-2013	8,200	29,330	3.6	20	1,640	91	51,130	0.019
2013-2014	6,720	37,705	5.6	16	2,240	71	86,405	0.032

Table 3-5Pot usage and catches in the Western Aleutian Islands golden king crab fishery (2000/1 through
2013/14)

Source: ADFG AI golden king crab report

Table orginates from WAG 08_09 to 13_14 season (from ADFG) and AI Golden King Crab Tables

As might be expected, since implementation of the program, CV fishing has been extended over a longer period of time (see Table 3-6). Substantial time periods between landings (or breaks in fishing) have developed under the program. As for Adak, the season appears shorter than the overall WAG season; the first deliveries occur several months after the start of the fishery and the last deliveries general occur a month or two before the end of the season.

Table 3-6Seasons and deliveries in the Western Aleutian Islands golden king crab fishery (2005/6 through
2013/14)

Season	Season opening	Date of first delivery	Date of first Adak delivery	Date of last delivery to Adak	Date of last delivery	Season closing	
2005-2006		September 6	November 3	February 27	March 25		
2006-2007		September 10	April 18	May 6	May 6		
2007-2008		September 14	November 27	May 17	May 21		
2008-2009		September 13	November 8	March 18	May 12		
2009-2010	August 15	September 5	No de	eliveries	May 18	May 15	
2010-2011	5	September 11	No de	eliveries	March 18		
2011-2012		September 6	February 3	March 24	April 10		
2012-2013		September 10	January 20	March 24	May 5		
2013-2014		September 9	No deliveries		May 8		

Source: AKFIN, April 27, 2015

Table orginates from WAG_LANDINGDATE(04-29) and AI Golden King Crab Tables

While landings have been spread over a relatively long time period, the West region IFQ allocation is relatively small (see Table 3-7). Every year since implementation of the program, two to three catcher vessels participated in the fishery. A trip for a participating vessel in WAG generally lasts one to four weeks; on average 2.5 (based on the past five years). During this 2.5 week trip, they spend an average of twelve days actively fishing (setting/ hauling gear). They make approximately six to twelve trips in a season. These vessels made between two and six landings of West designated IFQ in Adak in a post-CR season, and on three occasions made landings of undesignated IFQ at the Adak facility.

	Number of active catcher vessels	Western region IFQ allocations (lbs)	Number of landings			
Season			Number of landings of West region IFQ		Number of landings Undesignated IFQ	
			Adak	Total	Adak	Total
2005-2006	2	570,932	6	13	1	10
2006-2007	2	570,932	2	5	0	7
2007-2008	2	570,932	5	9	0	8
2008-2009	2	599,474	4	7	0	7
2009-2010	2	599,475	0	7	0	9
2010-2011	2	599,475	0	8	0	7
2011-2012	2	599,475	3	8	1	8
2012-2013	3	630,139	5	9	1	10
2013-2014	3	630,139	0	9	0	11

Table 3-7 Active catcher vessels and number of landings for West region and undesignated IFQ (2005/6 through 2013/14)

Source: ADFG AI golden king crab report

Table orginates from WAG_Trips(04-29) and AI Golden King Crab Tables

Crab markets exhibit volatility. Table 3-8 demonstrates ex vessel value as well as first whole sale prices for both golden king crab sections (the much more prevalent way to market crab), as well as the few entities that have pursued the live crab market.⁶ First wholesale prices for golden king crab sections shows a notable decline in 2006, the first full year after implementation of the rationalization program. This drop coincided with an abundance of competing small sized red king crab imports. In the second and third years following implementation of the program, king crab inventories were depleted, which together with a relatively strong Japanese market, led to increases in golden king crab section prices. This was followed by a weakness of the global economy and, more specifically, crab markets (particularly large retail and food service markets) are believed to have led to slightly lower prices through 2010. Prices increased for golden king crab sections in 2011, but then settled slightly over the next three years.

The market for live golden king crab demonstrates a very different trend. The few sellers of this product are generally marketing Southeast Alaska golden king crab, although an exploratory market has developed in Adak in recent years as well. These data support anecdotal evidence that, while the live crab may be a more challenging product to supply, it can come at a premium price for sellers.

⁶ Note that this table displays information for all golden king crab fisheries in Alaska and not just WAG.

Year	Ex vessel price	First wholesale price					
rear	Ex vessel price	Sections	Live				
2001	3.34	7.08	5.11				
2002	3.42	7.50	4.98				
2003	3.55	7.90	5.80				
2004	3.08	5.99	5.86				
2005	2.74	6.12	6.05				
2006	1.92	4.44	6.91				
2007	2.16	5.38	6.52				
2008	3.58	6.85	6.74				
2009	2.45	5.08	6.23				
2010	3.80	7.68	6.49				
2011	4.73	11.15	10.09				
2012	3.87	8.38	11.05				
2013	3.89	8.64	*				
2014	4.36	8.76	15.78				

Table 3-8Estimated golden king crab ex vessel prices and first wholesale prices (crab sections), 2001
through 2014 (dollars/pound)

Source: AKFIN, April 27, 2015

Table orginates from WAG_Data(04-27)-1 and AI Golden King Crab Tables

* Denotes confidential data

3.5.3 Harvesting Operations

As displayed in Table 3-1, since the inception of the CR program, this fishery has chiefly consisted of two CVs and one CP. This table also displays a relatively consistent TAC with only two increases in the past decade. Trips for these few vessels are generally quite long; three weeks is common. The vessels have several tanks to hold live crab. The average tank capacity of the vessels that participate in the WAG fishery is between 120,000 and 150,000 pounds (Linda Kozak, 12/7/2015, personal communication). Any crab that arrives at the processor dead are weighed by the processor and reported as deadloss. Therefore, vessels have an incentive to keep crab alive, regardless of the market opportunities they are pursuing. Golden king crab is a tough species and, generally, can survive in vessel tanks for an extended period of time. With the exception of 2006/2007 through 2008/2009 seasons, nearly 100 percent of the WAG TAC has been harvested. Retention of multiple species in CR fisheries is allowed in only a few cases; there are no bycatch allowances for WAG.

By definition of the allocation, all fishing activity occurs west of 174° W longitude. These vessels are covering a very large fishing area. Fishing occurs all the way out to the Russian boundary, in Regulatory Areas 543 and 542, usually west of Adak.

3.5.4 Processing Operation

The following is a description of the processing operation for live king crab at the Adak processing facility, as stated in an article from *Adak Eagle's Call* (April 2015):

The crab is gently offloaded from the boat into the specially designed totes. The totes full of crab are transported via forklift into the plant for weighing. After weighing, the totes are

transported to the staging area and filled with hoses providing continuously flowing seawater and oxygen. On the day of shipment, the totes are drained and transported to the packing area. The crab is inspected and weighed one by one. Crab that is not reactive enough or appears to be dead is set aside and counted as "dead loss". The crab is gently placed in wax boxes with a thick plastic liner until the box is at capacity. The average box weighs 54.6 lbs. The crab is pre-checked at the plant, and transported to the Adak Airport in specially designed "igloo cargo containers" or on pallets. Flight 164, scheduled to arrive at 5:00pm is tenuously watched for takeoff from the Anchorage Airport, especially on a bad weather day. If the flight does not arrive due to weather complications, the crab already packed in boxes for shipment has to be removed and returned to the habitat totes. The process of unpacking the crab and returning them to the habitat tote generally increases the "dead loss" rate, so the crab is packed at the very last minute for shipment.

According to representatives of the community of Adak, the plant has the physical capacity to hold up to 60,000 pounds of live crab (Dave Fraser, 6/7/2015, public testimony). It is important for the product to be shipped expeditiously, thus access to the live crab market opportunity in the Western Aleutians is constrained based on aircraft capacity for shipping the product out on the biweekly flights to Anchorage. Aircraft capacity is approximately 8,000 to 14,000 pounds depending on the type of aircraft (Dave Fraser, 5/14/2015, personal communication).

If operators choose to diversify into the slightly lower-valued traditional cooking and freezing of sections, commercial flight patterns and capacity would still be a constraint on the volume of crab that could be shipped from Adak. *Physically*, the processing operation in Adak has capacity and is operationally equipped to accept a full 120,000 to 150,000 pound offload of a crab vessel for cooking and freezing (Dave Fraser, 9/1/2015, personal communications). However, *economically* operators would not be willing to accept this type of an offload, under current conditions. The small volume and slow speed at which crab could be shipped by aircraft would not warrant the cost of operating continuous cold storage for the product. If the processor was dealing with a secondary species that provided higher volumes and more consistent deliveries, a market for frozen crab sections could emerge with increased economies of scale. The benefits of agglomeration could lead to the availability of substitute types of transportation, such as a tug and barge operation, potentially making the frozen crab section market viable. At this time, the live market is the only market the processing operator is pursuing.

3.5.5 AI Communities

Adak and Atka are the two communities located in the AI with shoreside processing plants that could benefit from the partial offloading of crab deliveries in the WAG fishery.

3.5.5.1 Adak

Adak is located on Kuluk Bay on Adak Island in the Aleutian chain. It is the southernmost community in Alaska. It lies 350 miles west of Unalaska and is not a Community Development Quota (CDQ) community. The Aleut Corporation acquired the majority of Adak's former military facilities in 2004. Since that time, the Aleut Corporation has continued its efforts to develop Adak as a civilian community with a private sector economy focused heavily on commercial fishing. Adak is pursuing a broad range of fisheries for a resident fleet to be able to deliver to Adak Fisheries, the shoreside processor located on Adak.

The development of a local residential fleet has been a goal of the local leadership, but currently the locallyowned CV fleet is small. Three residents held commercial fishing permits as of 2010 for sablefish, salmon, groundfish, and halibut. Adak is not currently eligible to participate in the CDQ program, but is considered a Community Quota Entity, which allows Adak to purchase halibut CV quota share assigned to Area 4B and sablefish quota share assigned to the AI. In addition, as a result of Congressional action, it receives a 10 percent allocation of Western AI golden king crab to help foster the development and maintenance of sustained fisheries participation. Congressional action has also provided an allocation of AI pollock to the Aleut Corporation for the benefit of Adak, outside of the CDQ program.

Adak is home to a large shore-based processing plant. Most commercial fishing deliveries to the Adak shoreplant are from larger vessels from outside the area. Of the species processed, Pacific cod, halibut, and sablefish have been the primary species. The community has also seen some crab and Pacific cod activity related to other companies, but these companies are not physically located in the community. When operational, the Adak processing plant was most active from January through March, followed by a relatively quiet period from April through June, and then running about half-speed from July through September before activity tapering off from October into November. The A season Pacific cod fishery has historically been the main source of income for the plant (and raw fish tax revenue for the City of Adak), accounting for about 75 percent of the plant revenue.

Adak shoreplant has had numerous ownership changes since its establishment in 1999 as Adak Seafoods. In mid-July 2000, Norquest became a predominant partner. In January 2002, Icicle Seafoods became a relatively equal partner in the operation, which operated as Adak Fisheries, LLC. Other ownership changes ensued, although until recently, the company still operated as Adak Fisheries, LLC. In 2009, the price of Pacific cod dropped to less than half of the 2008 price. As a result, Adak Fisheries, LLC. has struggled to meet its financial obligations, and in the end, filed for Chapter 11 bankruptcy in September 2009. During 2010 and 2011 fishing years, financial difficulties surrounding the Adak shoreplant resulted in no processing of Pacific cod. In 2012, the shoreplant, operated by Icicle Seafoods closed its operation in Adak citing concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty surrounding AI Pacific cod. In June 2013, the City of Adak was the highest bidder in an auction for the processing equipment formerly owned by Adak Seafood, LLC. The intent of the purchase by the City was to keep the processing equipment in place, as a turnkey operation, in order to facilitate the expedited reopening of the plant. In September 2013, Aleut Corporation's subsidiary Aleut Fisheries signed a 20-year lease with Adak Cod Cooperative to operate the Adak seafood processing facility.

Adak Cod Cooperative renovated the Adak seafood processing facility from a headed and gutted operation into a fillet operation. The renovated shoreplant began processing AI Pacific cod in early February 2014, utilizing six trawl CVs, four greater than 60' in length and two that are 58' in length. In addition, US Seafoods agreed to process only incidentally caught AI Pacific cod while targeting other AI fisheries. The Adak Cod Cooperative closed its operation at the Adak shoreside processing facility in May 2014.

An April 2015 article in The Adak Eagle's Call, stated that Premier Harvest, LLC had recently purchased fishing processing equipment from the City of Adak and signed a 20 year lease with the Aleut Corporation for the Adak fish processing facility. Premier Harvest has been processing live crab in Adak since 2014. Premier Harvest specializes in premium live and fresh crab with shipments domestically, as well as Europe, Asia, and Middle East.

3.5.5.2 Atka

The community of Atka is located on Atka Island on the Aleutian Chain, about 100 miles east of Adak and 350 miles west of Unalaska. Atka encompasses 8.7 square miles of land and 27.4 square miles of water. Aside from Adak, it is the only civilian community in the AI subarea.

The island has been occupied for over 2,000 years by Aleut residents and became a major trade site for Russian settlers in the 1700s. By the 1920s, Atka had become a center for fox farming. The island was

evacuate during World War II after the Japanese military attacked Unalaska and landed on Attu and Kiska. After World War II, former residents of Attu, Kiska, and Atka relocated to the island.

Atka was incorporated as a second class city in 1988. The population for the community is relatively small, estimated at 61 total persons by the latest U.S. Census. Residents of Atka are primarily Alaska Native (Aleut), and a Federally-recognized tribe is located in the community (the Native Village of Atka IRA).

The economy is predominantly based on subsistence living, as well as commercial halibut and sablefish fishing. According to the Commercial Fisheries Entry Commission (CFEC), 4 commercial permits were held by residents. No other permits were held in Atka for other fisheries. Atka is a CDQ community and a member of the Aleutian Pribilof Island Community Development Association (APICDA) CDQ group. As a member of APICDA, the community benefits from the Community Development Quota (CDQ) shares in a number of commercial fisheries, including Pacific cod, Atka mackerel, yellowfin sole, rock sole, Greenland turbot, arrowtooth flounder, flathead sole, Pacific ocean perch, Pacific halibut, various crab fisheries, and Chinook salmon. In 2011, specific to AI Pacific cod, APICDA had an effective allocation within the CDQ reserve of 15.45 percent. In recent years, APICDA has used CDQ funds to construct small and large dock facilities, add infrastructure to Atka's harbor, improve the Alaska Pride Seafood plant, and construct a new inn for visitors.

The processing plant that is located in Atka is a joint venture between APICDA Joint Ventures and the Atka Fisherman's Association. They formed Atka Pride Seafoods in 1994, began processing in 1995, and have processed every year since. The primary species processed are halibut and sablefish, and the commercial fleet delivering to Atka is involved mainly in those fisheries. According to senior APICDA staff, Pacific cod is seen as the linchpin for the future of processing in the community, an assessment that has led to substantial infrastructure investments by the group. The shore processor recently completed a \$4 million expansion, and in 2014 it began another major round of improvement, to make the plant a year-round operation.

There is also interest in developing processing capacity for WAG at the plant, with both APICDA and the Atxam Corporation (Atka's Alaska Native Claim Settlement Act (ANCSA) village corporation) having acquired processor quota shares for that species.⁷ According to APICDA staff, impediments to crab processing in the community have included lack of deep water vessel access (now addressed through the new dock), and the fact that the Western AI golden king crab fishery is essentially a two-vessel fishery with deliveries made approximately once every two weeks during the fishing season. For efficiency reasons, other relatively high volume processing is needed at the plant to justify both the investment in an increased processing capacity, and the retention of a sufficient number of processing workers.

3.6 Analysis of Impacts: Alternative 1, No Action

Under the status quo regulation, vessels can, and have been, making small partial deliveries of live WAG to Adak. Given the current prohibition against continuing to fish once off-loading has begun and until its completion, vessels are somewhat constrained in the way they land live WAG at the Adak facility. Generally, harvesters have been making partial deliveries to Adak at opportunistic times, before delivering

⁷ Under the BSAI crab rationalization program, half of the WAG harvest shares have a western landing designation, while the other half is undesignated. While processors in Adak and Atka (the two communities in the western share landing/processing region), did not qualify for an initial history-based allocation of WAG processor quota shares, some processor quota shares for WAG were subsequently acquired from Unalaska/Dutch Harbor shore-based processors by APICDA and Atxam through a divestiture process. To date, processing of these share has variously occurred in Adak or in Unalaska (with the latter occurring under custom processing agreements when processing capacity was otherwise not available in the western share landing/processing region.

the remainder of the harvest to processors that are willing and able to accept this volume. If timing is right, vessels could also make a small target harvest (8,000 pounds to 14,000 pounds depending on the type of aircraft available) and off-loading this full amount in Adak (Dave Fraser, 5/14/2015, personal communication).

The entity currently developing the live market for WAG out of Adak is leasing out the facilities from the Aleut Corporation and has recently taken on the contract to purchase the equipment from the city as well. This company is paying a competitive price to harvesters for live WAG crab, motivating the harvesting sector to take advantage of the opportunity to deliver partial loads of WAG to Adak, whenever the logistics present the chance.

Thus, if no regulatory action was taken by the Council, current fishing and processing behavior would be expected to remain on this trajectory.

3.6.1 Illegal Discarding Under the No Action Alternative

As highlighted in Section 3.5.2, implementation of the CR program also created a regulation requiring vessels to fully offload all CR crab before resuming fishing (see 70 FR 10174). This regulation was intended to address concerns leading up to the CR program, that undesirable crab (e.g., overages, deadloss, or barnacled crab) could be discarded without being accounted for. This regulation primarily addressed an enforcement issue, but also had the effect of simplifying port sampling and catch accounting.

Experience with the CR program has shown that illegal (unreported) crab discards are believed to be unlikely for a number of reasons. First, there is no prohibition against highgrading crab at the rail. Regulations pertain to crab that is retained, which is defined as anything kept "after a reasonable opportunity to sort the catch" (50 CFR 680.2). Mandatory crab retention on the fishing grounds was not required, because it would be unenforceable, and it would have required a vessel to keep damaged and diseased crab in a hold with healthy crab. Because crab can be sorted and discarded prior to going into the tank, it is unlikely that a vessel operator would have any incentive to illegally discard crab prior to arrival at a processor, unless it was discovered dead or injured once on board. The risk of quota overages has been greatly reduced. The cooperative structure, online quota transfers, and post-delivery quota transfers give the industry many options to resolve a potential overage.

Once an offload has started, there could be reasons to discard crab illegally, rather than weigh and deduct them from a quota. A tank may be contaminated or have a high percentage of undesirable crab (e.g., deadloss, females, or sub-legal crab). By this time, the situation is likely to have been noticed by the vessel observer, port samplers, plant personnel, or in the case of larger operations, like Dutch Harbor, local enforcement agents. If a vessel operator were to depart the processor with these undesirable crab onboard, the partial offload would likely be noticed by one or more of the above personnel who would likely notify enforcement. Offloading any substantive amount of crab would require removing the hatch to the tank (a 6 ft. x 6 ft. plate of metal weighing several hundred pounds), putting someone into the tank (usually involving an extension ladder and a 10 ft. descent), and then pitching the crab, by hand, into a brailer that is hoisted and emptied overboard. If this is done at sea, it would be extremely dangerous. If it is done in a protected body of water, the VMS signatures would immediately be suspicious.

The structure of the crab rationalization program means more people than just the vessel operator are at risk by this sort of illegal actions. In addition to the vessel operator and vessel owner (jointly and severally liable; 50 CFR 680.21(c)(3)), the cooperative manager could be liable, and possibly the processor. Lastly, the quota share holder (often a member of the cooperative who is not one of the above individuals) has a financial interest in any co-op crab load. Given the number of players with a stake in a crab load, it is unlikely a vessel operator is going to risk a penalty and his future career for a problem outlined above.

Outside of government enforcement action, there is a likelihood of a dispute between the stakeholders by such an action. None of this is an absolute guarantee that a vessel operator will stay legal, but it provides strong incentives to do so.

3.6.2 State Management Under the No Action Alternative

Since the State of Alaska takes on the responsibility for management of this fishery, there are several areas of State management also relevant to discuss under the status quo.

3.6.2.1 Observer Coverage and Sampling Duties

State of Alaska regulations (5 AAC 39.645) provide ADF&G the full authority and responsibility for deploying onboard observers on any vessel participating in the commercial BSAI crab fisheries as necessary for fishery management and data-gathering needs. Schwenzfeier et al. (2014) provides details on regulations pertaining to the *State of Alaska Shellfish Onboard Observer Program* and a history of that program from its inception in 1988. State regulations for observer coverage in the WAG fishery require CPs to have 100 percent observer coverage and CVs to carry an observer during at least 50 percent of their total harvested weight in each 3-month trimester of the 9-month season.

For the purposes of observer sampling, an observed trip is considered to be the time period between when an observer boards a vessel and the complete delivery of all crab harvested. The observer's second trip starts after the first full offload is complete, and so on. Observer trips are not defined in state regulations, but the observer sampling protocol directs observers to conduct a tank inspection at the beginning of their initial trip to confirm that the tanks are empty (Melissa Salmon, ADF&G, personal communication, August 2015). Only crab that is delivered at the end of the observed trip is counted for determining percent observer coverage. If a vessel does not deliver all of its harvested crab to a processor, and resumes fishing, the observed trip would not be considered complete until the entire observed harvest has been delivered.

The percent of actual annual observed harvest for CVs, across both the east and west fisheries, has been in the range of 57 percent to 70 percent, since rationalization (Table 4-4 *in* Schwenzfeier et al. 2014) and the fleet has maintained a 50 percent or greater observer coverage level for each trimester. Trips in the WAG fishery commonly last up to three weeks, and vessels typically make up to five trips each trimester. Vessel operators decide which trips within each trimester will be observed and contract with the observer companies for a crab observer.⁸ Since the 2013/14 season, observer costs have been paid for by cost-recovery fishing, and are no longer pay-as-you-go.

Observers deployed on CPs conduct pot lift sampling, size-frequency sampling, legal-tally sampling, and determination of average weight of retained crab for each day the vessel retained catch. The main duty for observers deployed on CVs is pot lift sampling on each day the vessel fished. When CVs deliver to a processing facility, the observer obtains a size-frequency sample, legal tally, and determines average weight of retained crab.

Dockside samplers, when available, sample the retained catch of unobserved trips by CVs delivering to shoreside processing plants. Dockside samplers are ADF&G employees and their sampling duties include obtaining a size-frequency sample, legal tally, and determining the average weight of retained crab. Dockside staff are located in Dutch Harbor and, seasonally (winter months), in Akutan, King Cove, and St. Paul. Dockside samplers are not deployed to Adak.

⁸ State regulations specify provisions for Onboard Observer Certification and Decertification (5 AAC 39.143) and Onboard Observer Independent Contracting Agent Certification and Decertification (5 AAC 39.144).

Information collected by observers and dockside samplers is used in research and management of the WAG stock. An annual summary of the Crab Observer Program Database is produced by ADF&G (Gaeuman, 2014). Primary data summaries in the report include estimates of catch and catch per unit effort (CPUE) for both retained and discarded catch, along with information about species, sex, size, and shell condition.

3.6.2.2 Reporting Requirements (Observers and Dockside Samplers)

Comprehensive ADF&G crab observer sampling methods are detailed in the 2015 ADF&G Crab Observer Training and Deployment Manual.⁹ ADF&G dockside sampling methods are detailed in the 2014/15 ADF&G Dockside Sampling Manual.¹⁰

<u>Confidential Interview Form (CIF), and CIF Summary</u>. Observers or dockside samplers interview the captain and record information regarding fishing locations, the number of crabs retained, number of pots lifted, average soak times and fishing depths, and gear sizes. The CIF and the CIF Summary are a synopsis of the daily activities of the vessel and are submitted together as a single data set when a trip is completed. The CIF is a day-to-day breakdown of fishing activity, and the CIF Summary encapsulates trip and offload information such as average weights and deadloss weights.

Sometimes, a CV will deliver portions of the catch from the same trip to different processors, and if it is an observed trip, the observer stays on the vessel until the offload is complete. Average weight information and deadloss is recorded for each offload if an observer or dockside sampler is present. One CIF data set is completed for the entire trip and one CIF Summary is completed for each offload. Each CIF Summary has the corresponding processor name, port, and summary date for the offload. Recorded information includes average weights, deadloss, and personal use specific to the offload.

<u>Daily Fishing Log (DFL)</u>. It is mandatory that the captain complete a daily fishing log, which is issued by NMFS. The observer or dockside sampler collects the goldenrod-colored hard copies from the DFL and submits them along with the CIF data set. The DFL is used as a tool to assist in editing the confidential interview; both are used by management staff to verify fish ticket information and to edit location and effort information as necessary. Catch per unit of effort data (CPUE), defined as catch per pot lift, are used in the stock assessment (under development) for WAG, and as a metric for fishery performance by management staff.

3.6.2.3 At-Sea Sampling (Observers Only)

Randomly selected pot lifts are enumerated and sampled for species identification. For a subset of these pot lifts, measurements and assessments of ancillary characteristics are also recorded for crab of selected species. The protocol is the same for both CVs and CPs, but the target number of sample pots may be different, depending on vessel type.

Pot sampling conducted by observers provides independent data on species composition and bycatch, CPUE, size frequency distributions, crab diseases, fecundity, and mortality associated with fishing or sorting. Specifically, observers record: the sex, carapace length, and shell condition of each golden king crab; the legal status, relative to the minimum legal size of 6.0-inch carapace width of each male; the fate of each legal male as either retained (i.e., for delivery or processing) or non-retained (i.e., discarded); and data on the reproductive condition (clutch fullness, egg development, and egg color) of each female.

⁹ Crab Observer Training and Deployment Manual. September 2015. ADF&G Shellfish Observer Program, Dutch Harbor, unpublished.

¹⁰ Bering Sea Aleutian-Islands Dockside Sampling Manual, 2014/15. ADF&G Shellfish Dockside Sampling Program, Dutch Harbor, unpublished.

Information on the characteristics needed to score legal males as either retained or non-retained is gathered by direct observations of sorting practices, and through consulting with the crew (Barnard and Pengilly, 2006). Legal-sized males that are encumbered with epibionts, have legs missing, or show signs of disease are routinely discarded (Miranda Westfall, 8/1/2015, personal communication).

3.6.2.4 Retained Catch Sampling (Observers and Dockside Samplers)

<u>Average Weights.</u> Observers and dockside samplers obtain independent, representative average weights of retained crab that are reported on the Confidential Interview Summary form. At least three brailers per species retained, and one brailer from each tank are taken when possible. If a processor is using totes instead of brailers, the target is to sample at least six totes per species retained. A full count of crab in each brailer or tote is taken to compute average weight.

<u>Size Frequency.</u> The objective of size frequency sampling is to document the distribution of size classes and shell conditions in the retained catch to determine which segments of the crab stocks are removed by fishing. Because crabs shed their entire exoskeleton when they molt, physical size is the only practical method for estimating age. The biological measurements made by observers and dockside samplers are compiled to show the relative age distributions of crab populations and strength of discrete age classes. Size frequency data are also used to generate estimates of abundance and recruitment (in the stock assessment model), and may be used to establish allowable harvest rates and predict population trends. The goal is to conduct a 100-crab size frequency sample for every offload. If the vessel offloads to different processors in the same trip, a 100-crab sample for each offload is conducted by the observer, using separate forms for each offload. Dockside samplers conduct size frequency samples at only one processor.

<u>Legal Tally</u>. The objective of the legal tally sample is to determine the percentage of illegal crab retained by a vessel. The sampling goal is a tally of 600 crab or 25% of the load, whichever is smaller. If multiple deliveries are made to different processors in the same trip, a 600-crab sample is performed for the entire trip, apportioned over all deliveries. If possible, sampling is done proportional to how much crab is delivered to each plant. The collection of evidence specimens is determined by the calculated percentage of illegal crab, based on the total number of illegal crab from all partial deliveries for one trip combined. Samples of illegal specimens are retained until all partial deliveries are completed.

3.6.2.5 CPUE Estimation and Non-Retained Fishery Catch

For the Aleutian Islands golden king crab fisheries, overall fishery CPUE is estimated assuming independent simple random sampling of pots on individual vessels, with stratification by vessel and reported vessel proportions of total fishery effort (number of pot lifts) applied as known weights (Gaeuman, 2014).¹¹ Observer data from pot samples on size distributions and estimated CPUE of non-retained catch are used to estimate the weight of non-retained catch by applying a weight-at-length estimator (Doug Pengilly, 2014 crab SAFE). Estimated weights of each non-retained component (legal males, sublegal males, and female crabs) are reported annually in the Aleutian Islands golden king crab stock assessment report (*see* Table 2, p.755 *in* 2014 crab SAFE). Since rationalization, the total estimated weight of non-retained catch in the Aleutian Islands golden king crab fishery has shown some variation, ranging from 2.52 million pounds in 2005/06, to 3.03 million pounds in 2007/08; there has been a gradual increase in the amount of non-retained legal males over time from an estimated 0.12 million pounds in 2006/07 to 0.34 million pounds in 2012/13. An assumed discard mortality rate of 20 percent is applied to the non-retained catch estimates when total fishery catch is calculated.

¹¹ It is noted that the lack of randomization in the specific assignment of observer coverage in the Aleutian Islands golden king crab fishery precludes properly valid design-based inference of CPUE.

3.7 Analysis of Impacts: Alternative 2, Exemption to Full Offload Delivery Requirements (Preferred Alternative)

Alternative 2 (the preferred alternative) would allow crab harvesters the option of landing a partial load of WAG, then resuming fishing activity prior to landing the remainder of the crab. As described in Section 3.5, the scope of the proposed action alternative is limited. Therefore, the expected impacts on the action are limited as well. This section discusses impacts on harvesters, processors, communities, safety, as well as Federal and state management and enforcement interests.

3.7.1 Impacts on Harvesters

The vessels currently harvesting WAG are expected to experience some financial benefits from the action alternative. While they are currently participating in the live crab market out of Adak, and receiving a premium price for a small delivery, the action alternative would enhance the opportunity to land partial deliveries in Adak. The action alternative could potentially allow harvesters more flexibility to make "opportunistic" partial deliveries and, thus, receive a premium price for their landing. In addition, it could allow harvesters the ability to be more efficient when landing the remainder at a plant that is able and willing to accept such volumes. Alternative 2 would give harvesters the ability to top-off, potentially saving them money in fuel costs and time spent returning to the fishing grounds.

The number of vessels participating in the fishery is expected to remain consistent with the status quo. Spatial and seasonal distribution for the harvesting vessels is not expected to significantly change due to the action alternative.

3.7.2 Impacts on Processors and Communities

As a result of the decreased regulations for harvesters under Alternative 2, the processor in Adak is expected to benefit from some increased activity. The overall success of the operation and live crab market will be directly contingent upon many other factors, external to this action alternative.

Representatives of Adak have testified to benefits Alternative 2 would have on their community. Increased economic activity from the fishing sector would provide benefits through fuel sales and secondary services from vessels landing in the community. Increased activity at the plant could promote increased local labor opportunities. Additionally, both the municipality of Adak and the State of Alaska levy raw fish taxes. In 2014, Adak had a two percent raw fish tax that raised revenues of \$134,861 for the community, according to the Alaska Department of Commerce (2014). Half of the State of Alaska fisheries business tax is shared with the cities or boroughs where the processing takes place.¹² Therefore, additional landings also benefit the community through increased tax revenue.

In addition, the community entity representing Adak holds a Congressionally-assigned allocation of WAG quota for the community (10 percent of WAG quota pool). The community leases this quota and receives royalties from the revenue they generate. Thus, the community of Adak also has an incentive to encourage maximum returns from this allocation.

As stated in Section 3.5.5, processing of WAG has not historically occurred in Atka. Atka is the second possible community which the regional landing designation for the West region would benefit. However, due to insufficient current processing capacity for WAG in both Adak and Atka in recent years, vessels

¹² For more information on the types of State fisheries tax see: <u>http://www.tax.alaska.gov/programs/programs/index.aspx?60620</u>.

have been exempt from this landing requirement. The CDQ community that represents Atka, as well as its joint ventures, has expressed interest in developing this processing capacity in the future. If this were to occur, Alternative 2 could provide additional benefits to Atka.

WAG has been processed in the recent past in Dutch Harbor and the community of Akutan. Dutch Harbor, the City of Unalaska, and Akutan may be indirectly adversely impacted by the redistribution of some WAG quota that has been processed in their plants in the recent past. However, it is expected if there is an impact on these communities and processors located there, the effects from this Council action will be very small. Some partial deliveries are currently occurring at the Adak facilities; thus, this would not constitute redistributed effort based on this proposed action. Additionally, Alternative 2 would likely only facilitate a small increase in opportunity to make partial deliveries of live crab to Adak. Operations are still constrained by regional flight patterns and other region-specific factors.

If the processor in Adak expands its operations in the future to the extent that it could economically justify accepting a full delivery, this might represent a significant redistribution of WAG from Dutch Harbor or Akutan. However, much of this quota was always intended to be processed in the Western AI, as demonstrated by the West region landing requirement. Moreover, as previously mention, this result would be influenced by a large suite of factors external to this action alternative.

3.7.3 Impacts on Safety

The proposed action alternative is not expected to have any impact on the status quota of safety in the fleet. It is expected that the vessels participating in the fishery would remain the same. Fishing behavior would be essentially consistent with the status quo. The primary difference for harvesters under the action alternative would be that they could return to the fishing grounds before completing a full offload of CR crab. Therefore, no impacts are expected on safety.

3.7.4 Impacts on Federal Management Measures

NMFS has not identified any management concerns with the proposed action, because the current landing report requirements and catch accounting system for the CR Program would not change. Under the status quo, all retained crab catch must be weighed, reported, and debited from the appropriate IFQ account under which the catch was harvested, and from the IPQ account under which the catch was processed, using the internet-based reporting system, *eLandings*. The crab landing report generated by *eLandings* is used to debit crab landings from IFQ and IPQ accounts for catch accounting purposes. NMFS anticipates that implementation of the proposed action would not change landing report requirements and would, therefore, not impact the CR Program catch accounting system.

3.7.5 Impacts on State Management Measures

Alternative 2 would allow vessels participating in the WAG fishery to continue fishing after offloading a portion of their retained catch. Returning to the fishing grounds with crab onboard would comingle crab retained from more than one fishing trip and, thus, the biological data sampled from subsequent offloads would be a blend of crab caught on more than one fishing trip. These trips may or may not be in the same area, may have different soak times, fishing depths, etc. Logbook data could not be associated with specific crab offload data, unless crab are separated into different tanks and the vessel operator notes in the logbook the fishing strings associated with each offload. If, under Alternative 2, vessels would voluntarily keep crab destined for the live market and crab destined for the traditional market in separate tanks, the impacts on state management measures would be minimized.

Likewise, if crab destined for a live market are kept in a separate tank, size frequency-shell condition samples could be taken in the fish hold by an observer as typically occurs. Sampling in the fish hold is done in order to not bias the sample based on what the processor retains or not (i.e. if a female or sublegal crab were refused by the processor they would not be a part of the sample). If crab are not kept separate, then sampling would need to be taken only from product offloaded; the sampler would need to ensure that sampling only occurred on the dock.

Legal tallies could not be taken if sampling occurred on the dock, as that crab is presorted by the processor and illegal crab would not be detected in the tally. A legal tally could be conducted if catch from partial trips are in separate tanks; a full legal tally would be conducted in each tank.

Highgrading for crab suitable to a live crab market (price differential and survivability of large, clean, undamaged crab with no disease) can occur. Partial offloads, which are currently allowed and would continue to be allowed under Alternative 2, provide an opportunity for vessel operators to sort crab suitable for live market. It is suspected that this behavior occurs under the status quo based on the available data. Average weights of crab delivered to the live market appear to be much heavier than deliveries to traditional processors; an average of 4.9 pounds to the live market compared to an average of 4.2 pounds to traditional processors. Observers report participants selecting the largest and heaviest crab for the live market. A premium price per pound for the live market is a strong incentive for this behavior to continue.

This is not necessarily considered problematic from a management perspective. The objective is to make sure the weight of these golden king crab are accounted for, regardless of where they are delivered. Under Alternative 2, if the vessel is allowed to continue fishing before offloading the entire harvest, ADF&G may be able to compare observer pot sample size frequency data to retained catch size frequency data to detect differences in catch and landings if highgrading occurs. However, this would be confounded because there may not be a direct link between offload data and observer sample data. At-sea catch samples taken by observers are linked to the retained catch data in order to estimate total fishery removals.

Keeping crab destined for the live market in a separate tank may minimize deadloss, which vessels attempt to avoid. Tanking down (removing water from a tank in order to offload crab), refilling the tank and running back to the fishing grounds with crab onboard could increase deadloss. Documentation of deadloss is the responsibility of the vessel operator and buyer and can be documented on observed vessels or by dockside samplers during an offload. However, if no observer or dockside samplers are available, then enforcement of accurate documentation of deadloss would not occur.

The Council's PA would not require any changes to state regulations. If vessels intend to continue fishing after partially offloading retained catch, then those crab destined for the partial offload should be kept in a separate tank, and logbooks should indicate the pot strings that contribute to that harvest. This will ensure that status quo sampling and accurate accounting of effort can occur. Given the limited number of vessels that participate in the WAG fishery, ADF&G will continue to work with the fleet to obtain accurate effort information and ensure that unbiased sampling of the retained catch occurs.

Maintaining either full or no observer coverage (i.e., not switching from observed to unobserved mid-trip), when partial offloads with continued fishing are occurring, would allow the percent of observed harvest each trimester to be accurately calculated and ensure that at-sea data can continue to be linked to retained catch data. As stated earlier, an observed trip begins either when an observer boards an empty vessel or after the vessel has fully offloaded (this is confirmed with a tank inspection). Typically observers are deployed from Dutch Harbor, due to the additional costs of flying an observer to Adak, but deployments from Adak do occur. Again, rather than changing any state regulations, under the Council's PA, ADF&G would continue to work with the fleet to ensure that observers are deployed in the WAG fishery so that accurate sampling and accounting for observed harvest occurs.

3.7.6 Impacts on Enforcement Measures

Due to the narrow exemption the proposed action would create, the proposed action alternative would create the added responsibility of having to distinguish this exemption for vessels participating in the WAG fishery. For example, some vessels and captains also participate in the Eastern Aleutian Golden king crab fisheries (EAG) and other CR fisheries. Vessel operators would need to understand that the proposed exemption would apply only to WAG fishery.

Federal enforcement representatives, as well as a few interested stakeholders, have expressed an additional motive for removing the prohibition for all CR stocks. As stated in Section 3.5.2, the intent of this regulation was to address primarily enforcement concerns that undesirable crab could be dumped at sea without being accounted for. However, Section 3.6.1 explains that experience with the program has shown this to be a highly unlikely event. In addition, harvesters would benefit from the increased flexibility. Removing the regulation for all CR fisheries would allow participants flexibility in their fishing operations in instances such as ice edge advances, storms, unanticipated breakdowns, etc.

However, removing the prohibition for all CR fisheries expands the scope of potential impacts, particularly for state monitoring, but also potentially at a processor and community-level. ADF&G has expressed a number of catch accounting and monitoring concerns associated with lifting the prohibition for the WAG fishery. Section 3.7.5 indicates that these concerns are mitigated by the limited number of vessel operators participating in this fishery, enabling ADF&G staff to work to ensure participant understanding of the protocol. In Section 3.7.5 of the analysis, recommendations for appropriate catch monitoring and observer coverage practices under the action alternative are considered to be practicable by the state, due to this limited scope. If the action was expanded to include all CR fisheries, ADF&G has indicated monitoring and accounting impacts would need to be considered outside of what is presented in the current analysis.

3.8 Summation of the Alternatives with Respect to Net Benefit to the Nation

Regulatory and management changes attributable to the action alternative are expected to have positive distributional effects on individuals harvesting WAG, the community of Adak, and IPQ holders through increased flexibly in Federal regulations. The action is minimally disruptive to state monitoring and does not change how retained catch or total catch accrues. In addition, enhancing the development of the live crab market will provide additional opportunity for consumers to purchase this high-value WAG product form. Therefore, while changes in net benefits to the Nation based on this regulatory change are expected to be small, they are expected to be positive.

4 Magnuson-Stevens Act

4.1 Magnuson-Stevens Act National Standards

Below are the 10 National Standards as contained in the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act), and a brief discussion of how the PA is consistent with the National Standards, where applicable. In recommending a preferred alternative, the Council must consider how to balance the national standards.

National Standard 1 — Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

Nothing in the proposed action alternative (the PA) would undermine the current management system designed to prevent overfishing. The PA would be intended to allow more efficient harvest of the established WAG TAC and the opportunity to take advantage of partial offloads when available.

National Standard 2 — *Conservation and management measures shall be based upon the best scientific information available.*

The analysis draws out the best scientific information that is available, concerning the BS and AI crab fisheries. The most up-to-date data that are available are augmented with current information from representatives of different sectors of the fishery.

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 PA is consistent with the management of individual stocks as a unit or interrelated stocks as a unit or in close coordination.

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 United States 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 manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

The proposed PA would treat all participants the same, regardless of their state of residence. The proposed change would be implemented without discrimination among those participating in the WAG fishery. The PA makes no change in the distribution of fishing or processing privileges among holders. The action will not contribute to an entity acquiring an excess share of privileges.

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.

Under the status quo, the prohibition against continuing a fishing trip after making a partial delivery in Adak, results in economic inefficiency when the vessel must travel to the next nearest processing opportunity with a partial load of WAG. The Council believes that the PA seeks to promote efficient operations within the WAG fishery by allowing for partial deliveries to occur, followed by a continuation of a fishing trip. It is not expected to change the efficiency in the utilization of the resources, as generally

the WAG TAC is harvested to OY (see Table 3-1) and there is not expected to be significant changes in bycatch (as further discussed under National Standard 9).

The analysis highlights that the PA does not make changes to the current distribution of fishing or processing privileges among holders.

National Standard 6 — Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

None of the alternatives would be expected to affect changes in the availability of BS and AI crab resource each year. Any such changes would be addressed through the annual allocation process, which is not affected by the alternatives.

National Standard 7 — Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The PA assessed in this analysis does not duplicate any other action. As discussed in detail in Section 3.7.6, the PA may produce the additional enforcement cost of needing to distinguish the exemption in the WAG fishery from the requirement of harvesters in other CR fisheries. However, expanding action proposed in this analysis to all CR fisheries would likely create additional management challenges in other areas. For example, ADF&G has noted potential impacts on catch accounting procedures and observer coverage under an expanded proposal.

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 by utilizing economic and social data that meet the requirements of paragraph (2), 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.

The action alternative is particularly receptive to the goals of National Standard 8. The opportunity for WAG harvesters to be flexible in partial deliveries to Adak, is not only a benefit for the harvesters, but as described in Section 3.7.2, it is a benefit for community of Adak as well. Representatives of Adak have testified that these benefits would accrue in the form of general increased economic activity from the fishing sector, taxes, fuel sales, and secondary services from vessels landing in the community. If processing capacity developed in the future, this proposed action could also benefit the community of Atka. The Council also noted that the PA is consistent with National Standard 8 because it supports the continued participation of Western Aleutian communities in the CR fisheries.

National Standard 9 — Conservation and management measures shall, to the extent practicable, (A) minimize by catch and (B) to the extent by catch cannot be avoided, minimize the mortality of such by catch.

It is not expected that the PA would significantly impact bycatch. Under the status quo, while discouraged, there is no prohibition against highgrading legal male crab at the rail. The vessels participating in the WAG fishery have previously taken advantage of the live crab market Adak. Therefore any highgrading that may occur as a result of a premium market opportunity could already occur under the status quo. Section 3.6.2.5 discusses that while we have seen a small increase in non-retained legal males between 2006/07 and 2012/13, overall there has been little variation in the estimates of total non-retained WAG crab (including females and sub-legal males).

The legal discards are accounted for by observer data from pot samples and estimated CPUE (see Section 3.6.2.5) with an assumed discard mortality rate. If there were concerns about an increase in highgrading legal-sized male crab, as demonstrated by observer and CPUE data, then ADF&G could lower the TAC to account for the increased legal male mortality. The risk of a lowered TAC due to increased legal discards puts pressure on the harvesters to minimize these discards.

There would be no expected effect on the discard mortality of crab because there is not expected to be any changes to the handling procedures by crew on vessels harvesting WAG.

National Standard 10 — Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The PA would have no direct effect on safety of human life at sea.

5 Preparers and Persons Consulted

Contributors

Sarah Marrinan, NPFMC Karla Bush, ADF&G Michael Fey, AKFIN Brent Pristas, NOAA OLE Jon McCracken, NPFMC Keeley Kent, NOAA NMFS Lewis Queirolo, Ph.D., NOAA NMFS

Persons Consulted

Rachel Baker, NOAA NMFS Nicole Kimball, ADF&G Heather Fitch, ADF&G Wayne Donaldson, ADF&G Melissa Salmon, ADF&G Miranda Westfall, ADF&G Linda Kozak, Golden King Crab Coalition Dave Fraser, Adak Community Development Corporation Clem Tillion, Adak Community Development Corporation

6 References

- Baechler, B. and C. Cook. 2014. Annual management report for the commercial and subsistence shellfish fisheries of the Aleutian Islands, 2011/12. Pages 7–71 *in* Fitch, H., M. Schwenzfeier, B. Baechler, C. Trebesch, M. Salmon, M. Good, E. Aus, C. Cook, E. Evans, E. Henry, L. Wald, J. Shaishnikoff, and K. Herring. 2014. Annual management report for the commercial and subsistence shellfish fisheries of the Aleutian Islands, Bering Sea and the Westward Region's Shellfish Observer Program, 2011/12. Alaska Department of Fish and Game, Fishery Management Report No. 14-54, Anchorage.
- Blau, S.F., Pengilly, D., and Tracy, D.A. (1996). "Distribution of golden king crabs by sex, size, and depth zones in the eastern Aleutian Islands, Alaska." Proceedings of the International Symposium on Biology, Management, and Economics of crab from high latitude habitats, B. Baxter, Alaska Sea Grant College Program Report, 96-00, University of Alaska Fairbanks, Anchorage, AK, November 28-20, 1989, pp. 167-185.
- Gaeuman, W.B. 2014. Summary of the 2013/2014 Mandatory Crab Observer Program Database for the Bering Sea/Aleutian Islands commercial crab fisheries. Alaska Department of Fish and Game, Fishery Data Series No. 14-49, Anchorage.
- NPFMC [North Pacific Fishery Management Council]. 2011. Exemption to West Region Landing Requirement in the Western Aleutian Islands Golden King Crab Fishery for a Proposed Regulatory Amendment to Implement Amendment 37 to the Fishery Management Plan for Bering Sea and Aleutian Islands King and Tanner Crabs. NPFMC, 605 W. 4th Avenue, #306, Anchorage, AK. 99501. January 2011.
- NMFS [National Marine Fisheries Service]. 2004. Bering Sea Aleutian Islands Crab Fisheries, Draft Environmental Impact Statement. NMFS Alaska Region, P.O. Box 21668, Juneau, AK 99802-1668. March 2004.
- Pengilly, D. 2014. Aleutian Islands Golden King Crab 2014 Tier 5 Assessment. Pages 726 767 in NPFMC. 2014. Stock Assessment and Fishery Evaluation (SAFE) Report for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions. NPFMC, 605 W. 4th Avenue, #306, Anchorage, AK. 99501. September 2014.
- Queirolo, L. E. 2013. Conducting Economic Impact Analyses for NOAA Fisheries Service. (Revised in response to Presidential Executive Order 13563). National Marine Fisheries Service, P. O. Box 21668, Juneau, AK 99802. October 24, 2013.
- Schwenzfeier, M., M. Salmon, E. Evans, E. Henry, and L. Wald. 2014. Annual Report of the Onboard Observer Program for the Bering Sea and Aleutian Islands Crab Fisheries, 2011/2012. Pages 191 – 249 *in* Fitch, H., M. Schwenzfeier, B. Baechler, C. Trebesch, M. Salmon, M. Good, E. Aus, C. Cook, E. Evans, E. Henry, L. Wald, J. Shaishnikoff, and K. Herring. Annual management report for the commercial and subsistence shellfish fisheries of the Aleutian Islands, Bering Sea and the Westward Region's Shellfish Observer Program, 2011/12. Alaska Department of Fish and Game, Fishery Management Report No. 14-54, Anchorage.
- State of Alaska Department of Commerce. 2014. Alaska Taxable 2014. Anchorage, AK. Available at: <u>http://commerce.state.ak.us/dnn/Portals/4/pub/OSA/14Taxable-FINAL.pdf</u>
- The Adak Eagle's Call. 2015. The New Company in Town, Premier Harvest, LLC. The Adak Eagle's Call. April 2015.

Appendix

Adak Community Development Corporation

PO Box 1943 Adak, Alaska 99546 (907) 592-2335

January 27, 2015

Dan Hull, Chairman NPFMC 605 W. 4th Avenue. Suite 306 Anchorage, Alaska 99501-2252

Re: E-1 Staff Tasking - Partial Offload of WAG Crab

Dear Chairman Hull,

ACDC supports the Golden King Crab Coalition proposal requesting an exemption from the offload requirements to facilitate the ability of vessels harvesting crab in the Western Aleutians (WAG) to sell amounts of crab in Adak that can be shipped out live on Alaska Airlines.

The current requirement for offloading all crab prior to resuming a fishing trip limits the ability to take advantage of the higher value live market opportunities. As such it constrains the ability of ACDC to maximize the value of the Adak Community Allocation of WAG crab. Likewise it undermines the purpose of the regional landing requirements for WAG crab.

Thank you for your consideration of our comment on this issue.

Sincerely,

dave fraser ACDC



Date: January 27, 2015

To: Mr. Dan Hull, Chairman North Pacific Fishery Management Council

From: Linda Kozak

Subject: E-1 Staff Tasking

I am writing on behalf of the Golden King Crab Coalition, which represents the harvesters who fish for golden king crab in the Aleutian Islands. We are requesting the Council to address an issue with the CR crab landing requirements as stated in 680.7 (b) (3). The current regulation states that when a vessel begins to offload CR crab, they must complete the offload prior to resuming harvesting crab.

We are requesting an exemption from the offload requirements to facilitate the ability of vessels harvesting crab in the Western Aleutians (WAG) to sell amounts of crab in Adak that can be shipped out live on Alaska Airline flights which has a 10,000 - 20,000 lb. capacity per flight depending on the configuration of the aircraft.

Servicing the live crab market provides a price premium to the vessel.

Requiring the vessel to fully offload larger amounts than can be shipped out based on the airlines flight schedule or the live holding capacity of the plant, limits the ability of the harvest vessel and the processor to maximize the live market potential.

If the vessel has more crab than the processor can take a one time, the vessel is forced to either forego the live market opportunity or make a trip to Dutch to offload the balance before resuming fishing.

Imposing a full offload requirement adds expenses for the boat. It undermines the business model of the new operator of the Adak plant and reduces the value of the Adak Community Allocation to ACDC.

Golden King Crab Coalition NPFMC Comments – Agenda E-1 Page Two

Adak is ideally situated for flying out live crab because Alaska Airlines currently schedules a 737 twice a week with an empty freight back haul to Anchorage. The Essential Air Service contract with Alaska Airlines comes up again this year and the backhaul freight from shipping live crab could be critical to their decision whether to continue serving Adak. Having this service to the community of Adak is critical.

The ideal situation would be for the vessel to make frequent (bi-weekly) deliveries of amounts that the plane can carry out. Since the vessel's catch (and tank) capacity is greater than the plane's capacity, the vessel would build up an inventory of crab that would not be able to be marketed live. The optimal scenario this season would be to make a few small deliveries into Adak until they had enough crab to justify a trip to Dutch. To do this the boat uses one tank just for crab to be delivered for live shipment and uses the other tanks to build up enough volume to justify the trip to Dutch.

It's hard to see what rational purpose a prohibition on partial offloads serves in the WAG fishery. The vessel has a fixed amount of quota pounds to deliver for the season and as long as they deliver all of their catch by the end of the season in whatever combination of full or partial deliveries the catch accounting comes out the same. There is no requirement for frequency of deliveries or on the length of a fishing trip prior to making a delivery, so there is no added benefit of a requirement to fully offload before resuming fishing.

The response to Comment 210 in the Final rule states: "None of the regulations in this rule preclude any crab product form, including live crab, from being produced or shipped..." However, in the real world, a live crab operation in Adak in the WAG fishery depends on the flexibility to deliver small partial loads coordinated with the airline's capacity.

We are requesting that the Council initiate a regulatory amendment to modify the "Prohibition" at 680.7(b) Landing CR crab.... (3) Resume fishing for CR crab or take CR crab onboard a vessel once landing has commenced and until all CR crab are landed."

The modification would exempt WAG crab landed in the west region from the partial offload prohibition and provide the necessary flexibility to develop the live crab shipments.

Thank you for reviewing and considering this request.



CITY OF ADAK, ALASKA

VIA ELECTRONIC MAIL

January 27, 2015

Dan Hull Chairman North Pacific Fishery Management Council <u>Npfmc.comments@noaa.gov</u>

RE: E-1 Staff Tasking

Mr. Hull:

On behalf of the City of Adak, Alaska we are requesting the NPFMC to address an issue with CR crab landing requirements as addressed in 680.7(b)(3). The currently written regulation states, in part, that a complete offload must be made before resuming harvesting crab.

We have the distinctive asset of having the only airport in the Aleutians served by a national air carrier, Alaska Airlines, utilizing jet aircraft under the Essential Air Service program. For years the City, community and processing plant have sought ways to maximize the capacity of the jet aircraft, especially on the backhaul capacity from Adak to Anchorage. We seek these capacity utilizations in order to reduce or potentially eliminate the amount of subsidy required from the U.S. Department of Transportation.

Recently the City has become integrally involved with the success of the Adak processing plant, notably with the investment in acquiring the plant's equipment during an auction in 2013. We have recently completed a deal with a new, entrepreneurial processor that has the potential to add significant value to the resources coming across the docks.

The new plant operator successfully completed several test shipments of live crab and is working with Alaska Airlines to ensure essential capacity is maintained and available for this opportunity. Unfortunately, the aforementioned regulation brought to the forefront an issue that will jeopardize the success of this venture and our goal of ensuring the sustainability of the Essential Air Service for Adak. Without the service provided by Alaska Airlines, the community would be irreparably harmed and the costs to both the community and the Essential Air Service program would substantially increase, if bids from 2012 were any indication of cost and impact to Adak.

NPFMC Comments January 27, 2015 Page 2

The current plant operator does not have the capacity to accept a full offload of a crabharvesting vessel. While this will change as the operator succeeds in their efforts, this investment will be long-term, as it should be. Having seen the impact of the regulation, we find the reasoning difficult to justification for this regulation, for example, a vessel delivering a premium product to Adak, in order to maximize the value of the product would be unable to operate efficiently, as multiple trips would have to be made to Dutch Harbor. This defeats the entire purpose of maximizing the value of the product, especially for the community allocation, managed by the Adak Community Development Corporation.

We hope the NPFMC will take into consideration a regulatory amendment to modify 680.7(b) (3) regulation to allow an exemption to the "prohibition", for WAG crab landed in the west region. The City, in conjunction with the Adak Community Development Corporation, believes by making this adjustment, we will have the flexibility to develop the live crab shipment program that will provide maximum value to the fishery and the community, utilizing the assets Adak has acquired.

We thank you for your time and hope you will consider our request.

Sincerely,

Hort

Layton J. Lockett City Manager