

# Work-plan for the 10-year review of the Bering Sea/Aleutian Island Crab Rationalization Program

February 2015

This work-plan is meant to serve as a starting point for the Bering Sea/ Aleutian Islands (BSAI) crab rationalization program 10-year review. The objective of this document is to describe the proposed scope of this review. The Council may wish to provide additional guidance so that the review meets the current needs of the program, its participants, as well as stakeholders and communities affected by the program. Once the policy scope is determined, this framework will be presented to the Science and Statistical Committee (SSC) for discussion on the methodological approach to program evaluation.

The work-plan is outlined as follows:

Section 1 explains the requirement for a 10-year program review to the Council. Section 2 examines sources that can be used to guide the scope of the review. This includes: 2.1) the issues raised in the problem statement that guided program design and implementation, 2.2) requirements of limited access privilege programs (LAPP) as established in the Magnuson-Stevens Fishery Conservation and Management Act (MSA), 2.3) the National Standards of the MSA, 2.4) NOAA Catch Share Policy document, 2.5) examples of other crab program reviews, 2.6) examples of other program reviews, and additionally the Council can establish scope through, 2.7) public comment. Based on these resources, Section 3 included an annotated table of contents that more specifically details the policy scope of the work intended to be done. Section 4 lists the work-team.

There are three attachments to this document: Attachment 1: Five-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Island Crab Fisheries; Attachment 2: A Description of Action Taken or Considered, and Rules Implemented in the BSAI Crab Program Between 2010 to 2015; Attachment 3: Crab Rationalization 5-Year Program Review Social Impact Assessment: Executive Summary.

## **1 Requirements for a 10-year program review**

As a part of the initial development of the BSAI crab rationalization program, the Council requested a series of program reviews as a formal and comprehensive way to objectively evaluate how the program is working and identify areas that could be improved. The scheduled reviews also serves as an opportunity to assess the impacts of the program, and provide a means to highlight certain areas of interest or concern as the program develops.

This first program review occurred 18 months after implementation, when the Council directed staff to focus specifically on two aspects, a) the distribution of benefits between harvesters and processors arising

under the harvest share/processor share allocations and arbitration system and b) the distribution of landings of different harvest share types.<sup>1</sup>

In addition, the Council established a series of more standardized and comprehensive program reviews in the preferred alternative of the program in a motion from June 2002. This requirement was duplicated into the Fishery Management Plan (FMP) for BSAI King and Tanner Crab, Chapter 11, Section 7 entitled “Program Elements”.

*RAM Division in conjunction with State of Alaska will produce annual reports regarding data being gathered with a preliminary review of the program at 3 years.*

*Option 2. Formal program review at the first Council Meeting in the 5th year after implementation to objectively measure the success of the program, including benefits and impacts to harvesters (including vessel owners, skippers and crew), processors and communities by addressing concerns, goals and objectives identified in the Crab Rationalization problem statement and the Magnuson Stevens Act standards. This review shall include analysis of post-rationalization impacts to coastal communities, harvesters and processors in terms of economic impacts and options for mitigating those impacts. Subsequent reviews are required every 5 years.*

The 3-year preliminary review of the program was first available in 2008.<sup>2</sup> The more extensive 5-year review of the program was first available in 2010. Attachment 1 is the 5-Year Review of the Crab Management Program for the BSAI Crab Fisheries (not including its Appendices).<sup>3</sup>

By Council direction, a 10-year review of the BSAI crab rationalization program should be scheduled for 2015. With an interest in having data available from the 2014-2015 season, and contingent on Council priority, it is intended that an initial 10-year review of the BSAI crab program be produced for Council and public consideration by December 2015.

Section 303A(c)(1)(G) of the Magnuson-Stevens Fishery Conservation and Management Act of 2006 (MSA) also requires a formal and detailed review of a limited access privilege program (LAPP), such as the BSAI crab rationalization program. MSA requires program review “5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequently than once every 7 years).” Since the Council stipulated a 5-year cycle of reviews for the crab program, this satisfies all MSA program review requirements. Under current requirements, the next review of the program would occur in 2020. It would not be necessary to conduct an additional review at 12 years of the program.

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<sup>1</sup> The 18<sup>th</sup> month review is available at: [http://www.npfmc.org/wp-content/PDFdocuments/catch\\_shares/Crab/18MonthRev.pdf](http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/18MonthRev.pdf).

<sup>2</sup> The 3-Year Review of the Crab Management Program for the BSAI Crab Fisheries is available at [http://www.npfmc.org/wp-content/PDFdocuments/catch\\_shares/Crab/3yearreview1208.pdf](http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/3yearreview1208.pdf).

<sup>3</sup> The Appendices to the 5-Year Review of the BSAI Crab Rationalization Program is available at: <http://www.npfmc.org/crabrationalization/>. The Executive Summary for “Appendix A” of the 5-year Review is Attachment 3 to this document.

## **2 Establishing a policy scope for review**

Unless otherwise stipulated in program implementation, LAPP reviews do not currently have a check-list of required elements that must be included.<sup>4</sup> For the crab program, the Council has the flexibility to request whatever information they deem necessary to evaluate the objectives of the program as stated during program implementation and under the requirements of a LAPP as stated in the MSA. The National Standards of the MSA is also an authority on the management of a crab fishery under an FMP. The following section highlights the stated and implied goals of these sources for the crab program.

In addition, there are also a number of guidance documents that may aid the Council in requesting appropriate, relevant information and discussion to address the goals of the program as well as the general requirements of a LAPP. First, NOAA has produced a Catch Share Policy document that provides policy recommendation for nine guiding principles in the development and evaluation of catch share plans. Secondly, as previously mentioned, there have been several other crab program reviews. These reviews already have extensive background information on the management of the program. They will serve as a useful starting point in establishing elements of the program to discuss and the type of information that can be assembled particularly from Catch Accounting System (CAS) and the Economic Data Reports (EDR), as well as other sources. Thirdly, there have also been other recent program reviews that could serve as examples; suggesting ways to illustrate the impact of programs elements when these elements are also relevant to the crab program. Finally, public comment is another informative and important resource to influence the policy scope of issues highlighted in the 10-year review.

### **2.1 The goals of the crab rationalization program**

Rationalization of the BSAI crab fisheries was formally initiated by Congressional action in 2001, directing the Council to conduct an analysis that included several approaches to rationalization. The Council's primary motion to establish the program was made in June 2002. Several trailing motions followed, adjusting and refining the program before its implementation in 2005. The Council adopted the following problem statement, which implies a goal of mitigating the significant problems present in the non-rationalized crab fishery.

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

- *Resource conservation, utilization and management problems;*

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<sup>4</sup> NOAA NMFS is currently developing a template of requirements for program reviews. It is not expected that this template will be completed before the review is brought back to the Council.

- *Bycatch and its' associated mortalities, and potential landing deadloss;*
- *Excess harvesting and processing capacity, as well as low economic returns;*
- *Lack of economic stability for harvesters, processors and coastal communities; and*
- *High levels of occupational loss of life and injury.*

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

Using this problem statement to evaluate the success and impacts of the program is explicitly requested in the “Program Elements” of the FMP reporting requirement. Several goals are stated or are implicit in this problem statement. Specifically, 8 goals have been identified.

**Goal 1:** Promote resource conservation, utilization and management;

**Goal 2:** Manage and reduce bycatch and its' associated mortalities, and potential landing deadloss;

**Goal 3:** Reduce excess harvesting and processing capacity, as well as discouraging a system that promotes low economic returns;

**Goal 4:** Promote economic stability for harvesters, processors and coastal communities;

**Goal 5:** Prevent occupational loss of life and injury;

**Goal 6:** Promote efficiency in the harvest sector;

**Goal 7:** Address the social and economic concerns of the communities; and

**Goal 8:** Promote equity between the harvesting and processing sectors with healthy, stable and competitive markets.

Some of these goals are more specific and some of these goals are broad with the potential to overlap. Rather than have specific sections devoted to a discussion of each these goals, the review will use them as guiding principles. The intent of the review is to discuss these goals in relevant sections throughout the analysis.

## **2.2 The goals and requirements of an LAPP as stated in MSA**

Section 303A(c)(1) of the MSA states the requirements of a LAPP approved by a Secretary of Commerce. Among those requirements include characteristics that a LAPP should promote. This authoritative direction could be used for a discussion of the crab program’s ability to exemplify these characteristics. The following list of summarizes issues derived from language in the MSA that appear relevant to the crab program’s 10-year review. Some of requirements listed in the MSA are similar or the same as the goals of the crab program. The MSA states a LAPP program shall:

**Requirement 1)** include a rebuilding plan for an overfished stock,

**Requirement 2)** contribute to reducing over capacity if the fishery is over-capitalized,

**Requirement 3)** promote fishing safety,

- Requirement 4)** promote fishery conservation and management,
- Requirement 5)** promote social and economic benefits,
- Requirement 6)** include provisions for regular monitoring and review by the Council and the Secretary of the operations of the program, and
- Requirement 7)** include an effective system for enforcement, monitoring, and management.

Similar to the goals elicited from the problem statement, a discussion of how the crab program is meeting the requirements of the MSA will be integrated in the relevant sections of the review.

### **2.3 MSA National Standards**

The ten National Standards contained in the MSA Section 301(a) MSA provide authoritative direction for species managed by the National Fishery Management Program. These National Standards apply to the FMP for BS/AI King and Tanner Crabs. Not all of the Standards will be relevant for considering the impacts of the crab program particularly in the past 5 years; however, they are intended to be incorporated into the discussions throughout relevant sections of the review.

**National Standard 1** - Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

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

**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.

**National Standard 4:** Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

**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.

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

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

**National Standard 8:** Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for

the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

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

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

#### **2.4 NOAA Catch Share Policy Document**

NOAA Catch Share Policy is a document meant to serve as additional guidance on the development and evaluation of catch share programs in the U.S.<sup>5</sup> Based on the MSA requirements of LAPPs, NOAA's Catch Share Policy document identifies guiding principles of a catch share program and considerations for a program review.

The elements of the catch share design from NOAA's Catch Share Policy document include: setting **specific management goals** for the program, considering a broad range of participation criteria when setting initial **allocations** of privileges, establishing a criteria for the **transferability** of limited access privileges, creating **distinctions among sectors** in which the catch share program may not be the appropriate management fit, consider the **duration** of the catch share program, develop policies to promote **fishing community stability**, consider the use of auctions or other means to collect **royalties** from the initial allocation or subsequent distribution of privileges, design a **cost recovery** program to support the direct management, data collection, analysis and enforcement activity related to that program, and establish an outlet for periodical **reviews** of the program.

NOAA recommends the re-evaluation of many of these elements in a program review in order to “ensure that management goals are specified, measurable, tracked, and appropriate steps taken to ensure a program is meeting its goals and objectives.” The document states that, when possible, performance measures should be measurable and linked back with the initial objectives in the FMP (e.g., eliminating overfishing, promoting more precise catch accounting, etc.).

For instance, the document recommends periodically revisiting the underlying total **allocations** to each sector of a fishery on a regular basis, regardless of whether catch shares are the management tool of choice for one or more sector. Additionally, appropriate regulations around **transferability** of a privilege are meant to foster improved economic performance and mitigate unintended consequences of a program. The Catch Share Policy document includes a number of guiding elements for appropriate design, including frequent consultation with fishermen; promoting transparent public participation in crafting participation criteria, analysis of the trade-offs, and evaluation of outcomes.

Thirdly, harvesting privileges are not legally granted to an entity in perpetuity. The Council made decisions on the **duration** of the catch share plan in program implementation. Since the program was put

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<sup>5</sup> The NOAA Catch Share Policy document is available at:  
[http://www.nmfs.noaa.gov/sfa/management/catch\\_shares/about/documents/noaa\\_cs\\_policy.pdf](http://www.nmfs.noaa.gov/sfa/management/catch_shares/about/documents/noaa_cs_policy.pdf)

in place before MSA reauthorization, privileges are not limited to 10 years such as programs implemented after 2007. The NOAA Catch Share Policy reminds the Council that this aspect of the program can be amended and regular and detailed monitoring of a LAPP will help discern if the fishery is benefiting as expected in the implementation of the program.

The Council is expected to consider **fishing community sustainability** in the development of a program. Some examples of community provision might amount to total restructuring of the program design. However, some aspects of community sustainability could still be considered post-implementation. For example amendments to the right of first refusal contracts provisions in the crab program included efforts to promote more time and transparency for communities to exercise their rights to purchase processor quota shares.

The concepts of collecting **royalties** and **cost recovery** could still be included in a program review; however, more emphasis is placed on the consideration of these components in the development of a LAPP. The crab program does have a system of recovering costs set aside specifically for the management and data collection of this program (the intent is to include a discussion of this component in the review). Additionally, while it is still possible to consider the use of auctions or other means to collect royalties for the subsequent distribution of privileges, no other Council has taken advantage of this mechanism. It would likely present equity issues 10 years into the program as previous transfers or initial allocations did not in rent recovery for the crab resource.

Finally, as program **reviews** were included as an element of the crab program, the Catch Share Policy document states the Council should establish relevant performance measures.

The inclusion of the NOAA Catch Share Policy document is meant to serve as a reference to what a comprehensive program review *could* evaluate based on NOAA guidance. In a LAPP such as the crab program, program reviews are frequent and management is continuous and adaptive. While it is anticipated that not all of these issues are relevant or priority to the crab catch share program, the guidance in the document is valuable in a discussion of the policy scope for the program review and may be considered for the sections of the annotated outline. The more explicit the Council can be when choosing to focus on a specific policy considerations within the scope of the program review or not, the stronger the review document will be.

## **2.5 Past crab program reviews**

It is practical to develop a work-plan for the crab program 10-year review while considering the template for the 5-year review. The outline from the 5-year review is included as Appendix 1 and is the starting point for the annotated outline.

There could be significant value in considering updated descriptive information presented in the 5-year review. Some of the direct responses to the crab rationalization program, such as fleet consolidation and the organization of cooperatives occurred immediately after the implementation. Other effects of the program have been realized gradually. Compared to a review five years after implementation, the ability to evaluate data from ten years of a program allows for a more confident understanding of trends. Section

3 presents the opportunity to comment on utility of an updated evaluation of each section in the crab 5-year review.

## **2.6 Other program reviews**

The most recent program review for the Council in the North Pacific region was done for the Amendment 80 sector, with the Final Review presented to the Council by Northern Economics in October 2014.<sup>6</sup> Given the many similar the components of the program and the recency of action, this document can also serve as a guide in distinguishing topics of discussion and ways to consider data that can increase an understanding of the crab program.

Additional reviews from the North Pacific include a 1-Year Review of the Central Gulf of Alaska rockfish pilot program also in 2008<sup>7</sup> and a review of impacts from the American Fisheries Act (AFA) sector in a report to U.S. Congress and the Secretary of Commerce one year after program implementation.<sup>8</sup>

Examples of catch share program reviews in other regions include Red Snapper IFQ Program 5-year review by the Gulf of Mexico Council<sup>9</sup> and a recent review on the Sablefish permit stacking program in the Pacific Council Region 12 years after implementation.<sup>10</sup>

## **2.7 Public comment**

Public input is a valuable tool in shaping the Council's priorities within the crab program. Based on written and oral public testimony, the Council may consider including a discussion of characteristics of the program that are of interest or concern to participants and those that have been affected by the crab program. When requesting additional topics for discussion, stakeholders should consider the goals of the crab rationalization programs, and the requirements of a LAPP through the MSA.

## **3 Annotated proposed table of contents**

The amount of detail that could be put into a review has the potential to be extensive. While a review is aimed to be comprehensive, it is not intended to be an exhaustive study of the issues currently present in the crab program. The majority of topics for discussion are expected to be broad, with an opportunity for the Council to focus on some issues more specifically. Should the Council become aware of the need for additional action through the review process, they may elect to continue with that issue through a separate analytical track. A rigorous evaluation of one issue may be better suited for a discussion paper or analysis.

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<sup>6</sup> The Amendment 80 5-Year Review is available at:

[http://legistar2.granicus.com/npfmc/meetings/2014/10/894\\_A\\_North\\_Pacific\\_Council\\_14-10-06\\_Meeting\\_Agenda.pdf](http://legistar2.granicus.com/npfmc/meetings/2014/10/894_A_North_Pacific_Council_14-10-06_Meeting_Agenda.pdf)

<sup>7</sup> The Central Gulf Rockfish pilot program is available at: [http://www.npfmc.org/wp-content/PDFdocuments/catch\\_shares/Rockfish/RPPreview508.pdf](http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Rockfish/RPPreview508.pdf)

<sup>8</sup> Impacts of the AFA report to Congress is available at:

<http://alaskafisheries.noaa.gov/sustainablefisheries/afa/congress202.pdf>

<sup>9</sup> Red Snapper IFQ Program 5-Year Review is available at:

<http://www.gulfcouncil.org/docs/amendments/Red%20Snapper%205-year%20Review%20FINAL.pdf>

<sup>10</sup> The Pacific Coast Groundfish Limited Entry Fixed Gear Sablefish Permit Stacking (Catch Share) Program Review is available at: [http://www.pcouncil.org/wp-content/uploads/F6a\\_ATT1\\_FGSPS\\_PrgmRev\\_0514\\_JUNE2014BB.pdf](http://www.pcouncil.org/wp-content/uploads/F6a_ATT1_FGSPS_PrgmRev_0514_JUNE2014BB.pdf)

The staff's intention for the review is to put particular focus on changes and impacts within the past five years of the program. However, in some cases it may be more appropriate have the perspective be over the life-time of the program, or pre- and post-rationalization of the fishery.

Based on the crab program 5-year review the following outline is suggested:

## 0. EXECUTIVE SUMMARY

The executive summary will be developed to be a stand-alone document. It will include summaries of the key findings of the crab program 10-year review.

## 1. INTRODUCTION

This section will include a description of the objective of the review. Similar to the work-plan it will detail the requirements to prepare a program review and available authoritative guidance. It will lay out the footprint of the analysis and describe the data sources that are used within the document. Primary data sources include catch accounting system (CAS), Economic Data Reports (EDR), with a potential to use qualitative interview data collected by the AFSC in some sections. If data are used from sources that are not traditionally relied on in Council analyses, a more detailed description of the methodology in data collection will be included in an appendix to the review.

## 2. DESCRIPTION OF MANAGEMENT

The 5-year review of the crab program includes a comprehensive description of the management elements implemented in the creation of the program. There have been some amendments to these elements. The Council should be clear if they anticipate utility from a description of management measure that remains constant with the 5-year review in the 10-year review for completeness, or if the review should focus solely on the measures that have changed. The difference in effort is expected to be marginal.

In addition to potential description of the development and initial management of the crab program, the review aims to focus on recent management issues and amendments to the program within the past five years. The following section would include a description of Council activity related to the crab program that occurred since the 5-year review, including actions considered, but not taken by the Council since the 5-year review. For a description of each of these issues, see Attachment 2.

The staff's intention with this section is not to re-open issues for which the Council has determinedly decided action (or no action) on, but to highlight the adaptive management process and the areas that have been addressed most recently. This work-plan provides an opportunity for the Council to dictate the depth to which management changes to the program should be addressed within the review. Discussion could range anywhere from a very brief table of the amendments and rules taken, to a more detailed discussion of Council activity highlighting the problem statement and MSA goals they address and impacts to harvesters, processors, and communities (depending on what is relevant).

While this list is focused on the past five years, this does not preclude the Council from requesting information on management measures still of interest in evaluating impacts of the program.

### 3. HARVEST SHARE HOLDINGS

In the 5-year review, this section was dedicated to describing the development of the harvest privilege including the preceding moratorium on vessel entry and the license limitation program (LLP). It described the initial allocation of quota share among harvesters and the transfers that have occurred since that time. Initial allocation information would of course be consistent with what was previously presented in the 5-year review, but the transfer statistics of owner and crew share, as well as current holding could be a valuable update to understanding the market for different types of quota.

NOAA Catch Share Policy also guides the Council to reconsider the initial allocation among sectors, as well as the system of transferring privileges in this section of the program review. A previously mentioned, the Council has the latitude to focus time on these guiding elements or not. The Council recently (Feb 2013) considered an action to establish an owner QS active participation requirement for entities seeking a transfer of QS. This analysis, although outside of the program review is directly within the scope of discussions the Catch Share Policy intended the Council to consider under the transferability of privileges. Therefore the Council may choose to include new discussions of sector allocation and transferability in this section or they may determine that these issues have been appropriately addressed in subsequent meetings and/or does not have enough stakeholder support over other issues. Council guidance is requested on if and to what depth these issues shall be considered in a program review.

### 4. HARVEST SECTOR

Goals for the harvest sector, based on the Council's problem statement include promoting economic stability and efficiency, in part by reducing excess harvesting capacity. Excess capacity reductions in the fishery over time (fitting with Goal 3 of the crab program and the MSA Requirement 2), can be illustrated with a discussion of participation. There are many ways demonstrate what participation has looked like over time in the crab program. For example, participation can be illustrated by number of vessels, as well as by vessel length, share type, and region. Participation can be illustrated by percentage harvested by vessel or by sector, average harvest per vessel over time, or changes in other fleet characteristics of the harvest sector. These descriptions can be updated from the 5-year review of the crab program.

In addition this section could continue to house information on short term transfers of IFQ (leasing) and the cooperative management structure. The cooperatives that formed at the onset of the program are not the same cooperatives that have existed in the most recent seasons. Based on the first year of cooperative reporting this section could be updated to include a current description of the cooperatives and how this management structure aligns with goals of the program.

In addition, more information is now documented on lease rates in the fishery. The 5-year review highlighted a concern over high rates being changed against the temporary transfer of quota. Based on the Council's interest in this topic, the first year of cooperative reports were expected to address the industry response to these concerns. Furthermore the EDRs were revised in an effort to better capture the quota

shareholder's arm's length lease rate, among a sector of complex business relationships. This information can be used to provide an updated description of the leasing over time in the program.

Additionally, this section in the 5-year review outlined the program's impact on captains and crew. This section can be updated with information about crew size, harvest, wages for captain and crew, and percent of gross revenues paid to crew over time. It can include information about captain and crew compensation based on the productivity of their vessel (i.e. broken out into quartiles of harvest levels). This information is made available from the EDRs, but due to confidentiality it is primarily available for the Bristol Bay red king crab fishery and the Bering Sea *C. opilio* fishery.

Within the scope of captain and crew impacts, the Council also has access to data from extensive interviews conducted by AFSC with stakeholders in the harvest sector of the fishery. Information was collected from quota share holders, cooperative representatives, captains, and crew. Information available includes public perception on active participation, crew compensation and the future of participation in the fishery. The Council should provide guidance on the extent to which they would like to see this information incorporated into a discussion on impacts to captains and crews and what form they believe would derive the most utility.

## 5. PROCESSOR SHARE HOLDINGS

Similar to the section on harvest share holdings, this area of the review could detail initial allocations, regional distinctions (i.e. North versus South), and transfers of processor quota shares. Relative to the transfer of PQS, the review could include a discussion of the right of first refusal contract provisions and package of modifications that is currently going through the rule-making process.

## 6. PROCESSING SECTOR

Similar to the harvest sector, the Council's goals for the processing sector include promoting economic stability, and eliminating excess capacity that promote a system of low economic returns. In addition, the program aimed to promote equity between the harvesting and processing sectors with healthy, stable and competitive markets. These are broad objectives without an implied metric for evaluation. The Council should be clear if they are specific metrics useful in evaluating the fulfillment of these objectives.

Using a general descriptive approach to consider these goals, changes in participation and historical processing amounts can inform stability in this sector. The intent is to update descriptive information about the count of active processors accepting certain species by quota share category. Additional description can summarize the role of leasing and custom processing arrangements, changes to the distribution of landings, and the processing labor sector.

## 7. CDQ, ADAK, AND OTHER COMMUNITY GROUP PARTICIPANTS IN PROGRAM

Based on historical participation in certain crab fisheries, Community Development Quota (CDQ) groups and the community group representing Adak annually receive 10 percent of the TAC of each the program fisheries prior to allocations being made under the program. This section previously detailed the extent of the CDQ and Adak holdings under the program and the integration of fishing CDQ and the Adak

allocation with program allocations. The development of these programs is fitting with implied goals 4 and 7 of the crab problem statement and National Standard 8. Council guidance is sought on addition areas for inclusion in this section.

## 8. CRAB MARKETS AND PRICES

Many of the goals of the program were a response to the high risk and the instability for individual participant's economic investments, as well as the instability and inefficiency of the production chain as a whole. This section intends to summarize the crab markets over the first ten years of the program, including new markets and market changes particularly in the past five years. The intent is to also include discussion on what has not changed in the demand for crab and the pre-established markets, given the nature of Alaskan fisheries in a global market context. As there have been some changes to the arbitration system, this section will highlight impacts to new provisions as well.

## 9. ENTRY OPPORTUNITES

Barriers to entry represent a trade-off fisheries management makes when seeking to mitigate over-capitalization in a fishery. This section compares entry opportunities before the program (which was illustrated in the 5-year review), to transfer opportunities of quota after the rationalization program was implemented, with a particular focus of the past five years. The intent for the 10-year review is to update information on QS as well as C share transfer and to estimate cost of these transfers. The role of elements such as QS use caps will be considered in the program review.

Additionally, this section will highlight the pending regulatory changes to the C-share participation requirements and expected impacts from these changes. It also intends to discuss the Council's previous consideration of an active participation requirement for owner QS and the recent cooperative response to the Council's interest in a non-regulatory action. By the time the program review is expected to be available there will have been two rounds of cooperative reporting.

In this section AFSC data collection could provide a more robust understanding of entry opportunities. Entry into any market relies heavily on the public's knowledge and perception of available opportunity. Qualitative information collected in interviews can highlight the existing entry opportunities and perceived barriers to entry. The Council should provide guidance on the extent to which they would like to see this information incorporated into a discussion.

## 10. SOCIAL AND ECONOMIC COMMUNITY IMPACTS

In the 5-year review social and community impacts were organized in a comprehensive Social Impact Assessment (SIA) that was an appendix to the analysis.<sup>11</sup> This SIA was motivated by the Council's particular interest in community-based impacts of the program.

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<sup>11</sup> Appendix A to the 5-year review is available at: [http://www.npfmc.org/wp-content/PDFdocuments/catch\\_shares/Crab/5YearRev1210\\_AppxA.pdf](http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/5YearRev1210_AppxA.pdf). An executive summary of this document is Attachment 4 of this work-plan.

The SIA adopted a two-pronged approach in evaluating community or regional changes associated with the implementation of the crab program. The first section of the document includes tables illustrating the patterns of participation in fisheries by community, to the extent possible. In most cases the quantitative information was presented and discussed by fishery sector (harvesters, catcher processors, and processors) because confidentiality limited the types of quantitative information that can illustrate community level characteristics. For example, if a community is home to only one processor, value, or volume of harvest would need to be aggregated to the regional level where there are data represented from at least three entities, depending on the data source. The descriptive analysis that complements these tables focuses on fishery sectors, and contrasts average annual participation indicators for pre- and post-rationalization implementation years over the span of 1998 through 2009–2010.

The SIA review also qualitatively discusses a suite of social issues that are or were present across community boundaries in two additional sub-sections. The first sub-section included a discussion on crew and skipper issues, processing and harvesting entry opportunities, processor and harvesting relationships, processing employment, and the concerns of those individuals and organizations that remain philosophically opposed to the objectives of a rationalized fishery. The second sub-section details larger fishery and economic trends that are likely to span community borders.

The second approach to evaluating community impacts of the BSAI crab program uses primarily qualitative information and therefore can operate at a community frame of reference. This section identifies a sub-set of eight BSAI crab communities in order to characterize the social and community impacts associated with the rationalized crab fisheries. This section includes a qualitative ethnographic study of the community's engagement and dependence of various sectors present in the community and the relationship of those sectors to the rest of the local social and economic context. Eight communities are included, chosen for their characterization in pre-rationalization analysis: Unalaska/Dutch Harbor, Akutan, King Cove, Kodiak, Sand Point, Adak, St. Paul, and St. George. This section of the SIA also provides a detailed, updated community profile on four of these communities with a focus on BSAI crab rationalization impacts. These four profiles include: Unalaska/ Dutch Harbor, St. Paul, King Cove, and Kodiak.

The staff proposes to *not* include a comprehensive SIA for the crab program as was done for the 5-year review, but instead to provide updated information to the first section of the SIA that contains participation description by sector at either the community or region level (depending on data confidentiality). This section would include information pre- and post- implementation, but have a strong focus on what has changed (or not changed) in the past five years.

Discussion of the social issues present across community boundaries could be updated and included as well. These issues are largely highlighted in other sections of the review; for example, crew and skipper issues are intended to be discussed in Section 4 describing the harvest sector. However, in some cases it may be complementary to highlight issues in the context of the communities which they are present. The SIA for the 5 year crab review found crew and skipper issues to be most acute for Kodiak and King Cove than other communities, for example.

If the Council identifies an interest in updating the qualitative information of regional involvement and dependence on the crab program fisheries, the second section of the SIA has the potential to be updated as well. It should be understood that it will take time to assemble the information necessary for these profiles.

#### 11. MANAGEMENT AND ENFORCEMENT

LAPPs under the MSA are directed to include an effective system of enforcement, monitoring, and management. This section is intended to highlight changes in management and enforcement burden both since program implementation, as well as specifically in the past five years. For example, one issue that was raised in the 5-year review was that the potential for delay in the issuance of IFQ and IPQ due to the prioritization of the appeals process. Particularly if holders of substantial portions of the owner QS or PQS, this delay in allocation could create a mismatch in processor and harvester quota available. When Amendment 31 is implemented it will change the application deadline to allow time creating a lower probability that this instance will occur. Council guidance on other management and enforcement challenges for discussion are requested.

#### 12. MANAGEMENT COSTS AND COST RECOVERY

Under the creation of the program, and under the guidance of Section 303A(e) of the MSA, NOAA Fisheries collects fees to pay for the costs of management (including data collection and analysis, and enforcement activities) arising from the program. This cost recovery is charged as a percentage of the ex-vessel value of each landing. This section intends to update the table on management costs and cost recovery fees in order to determine if costs are being adequately recovered in the fishery.

#### 13. FISHING VESSEL SAFETY

Concerns with the occupational life lost and injury in a competitive, derby style fishery was one of the primary reasons for the rationalization program. It is both a goal implied in the problem statement that established the program as well as a requirement of LAPPs under the MSA. With collaboration from NIOSH, this section will evaluate fatalities in the BSAI fishery overtime and to the extent possible examine the effects of the program on fishing vessel safety; preventing occupational loss of life and injury and promoting fishing safety.

#### 14. BIOLOGICAL MANAGEMENT ISSUES

Staff intends to include a section on the current biological management issues for the crab fisheries of the rationalization program as well as the program's impact on the conservation efforts of the stock, to the extent practicable. The previous review details deadloss in the crab program fisheries. It also discussed bycatch and discard issues such as high-grading, rail dumping, handling mortality, soak times and catch per unit effort, lost pots and ghost fishing, and season length and temporal and spatial distribution. Additionally, several of the crab stocks in the rationalization program have been subject to a rebuilding plan. This section will include a brief discussion of efforts made towards these stocks. The Council may wish to provide guidance on any other biological areas of interest for this comprehensive review.

## 15. SIDEBOARD LIMITS IN OTHER FISHERIES

This section will detail the harvester and processor sideboard limits that were based on historical practice. As previously mentioned, Amendment 34 revised the sideboards for some crab participants in the GOA Pollock and Pacific cod fisheries for a small number of participants. Staff intends to evaluate crab harvester diversification in other fisheries throughout the first ten years of the program, with a particular comparison to the past five years.

## 16. KEY FINDINGS AND CONCLUSION

The final section of review intends to summaries key areas that appear to be consistent with goals of the program, requirements of LAPPs under the MSA, and the National Standards. This section will also highlight areas that appear to contain the largest challenges in reaching these objectives, as well as a discussion on the Council's authority relate to those challenges (i.e. is it something the Council can deal with or is it a market issue).

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