

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

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## Introduction

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

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

## Purpose and Need for the Action

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

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

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

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

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

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

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

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

The purpose of the proposed action is to provide a management program that improves resource conservation and management; decreases bycatch and deadloss; decapitalizes the fisheries; provides economic stability for harvesters, processors, and communities; and improves safety at sea. Given that the problems in the BSAI crab fisheries are due to overcapacity and the race for fish, the Council has determined that the institution of

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

### Scope of the EIS

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

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

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

The scope of this EIS will include decisions before the Council and also before the State of Alaska, which shares the responsibility for the management of BSAI crab. The Council will decide on whether to continue management under the existing crab FMP or to manage crab under a rationalization program. An underlying principle of this EIS is that a rationalization program will affect most aspects of BSAI crab fishery management by making some existing management measures unnecessary and requiring modification of other management measures. If the Council recommends a rationalization program, the State will make changes to State regulations governing the BSAI crab fisheries so that fisheries management responds to the unique demands of the rationalization program. To the extent possible, the EIS will identify alternative rationalization programs, alternative modifications to the existing management measures in the FMP, and ranges of potential changes to State management measures. Once these have been identified, the EIS will then analyze the effects on the human environment of the status quo and each alternative, and discuss ways

to avoid or mitigate any adverse effects. Alternatives considered but rejected will also be briefly addressed in this EIS.

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

### **Summary of Public Scoping**

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

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

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

Three public scoping meetings were held as follows:

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

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

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

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

#### **Comment 1: Consider Alaskan Communities.**

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

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

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

#### **Comment 2: Analyze a harvester-only IFQ alternative.**

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

- Considering processor quota along with IFQ will delay implementation of an IFQ program because of the complexities of a PQ program,
- IFQs are an accepted and reasonable management tool for rationalization of the BSAI crab fleet, and will address significant resource conservation and management objectives, as well as specific economic and social objectives,
- PQs are not authorized by Congress and there is no precedent PQ program,
- PQ has anti-trust implications,
- PQs equate to a distribution of ownership rights of a natural resource to a small class of large businesses, many of which are vertically integrated and multinational.

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

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

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

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

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

**Additional Comments**

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

**Other Scoping Efforts**

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

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



Statistical Committee have discussed rationalization at a number of meetings since October 1999, focusing on the alternatives, elements, and options under consideration during the June, October, and December 2001 meetings. The public comments received and the issues discussed during these meetings are part of the scope of the EIS and are included under relevant issues below. They are also discussed in detail in the Initial Council Review Draft of BSAI Crab Rationalization Alternatives, which is available on the web at <http://www.fakr.noaa.gov/npfmc/default.htm>.

## **Relevant Issues**

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

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

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

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

### **1. Resource conservation, utilization and management problems**

#### *Crab mortality - legal male crabs*

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

### *Fishery Impacts on ESA species*

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

### *Manageability of fisheries*

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

### *Data collection*

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

### *Habitat Impacts*

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

### *Spillover effects on other fisheries - harvester side*

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

### *Stewardship*

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

### *Abundance of stocks*

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

### *Seasons*

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

### *Pot limits*

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

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

### *Deadloss*

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

### *Bycatch*

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

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

#### *Excess capacity in the crab harvesting sector.*

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

#### *Excess capacity in the processing sector.*

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

#### *Derby fishery*

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

#### *Availability and quality of crab to consumers*

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

### *Fair and equitable allocation of interests in the fisheries*

Fairness and equity in eligibility to participate and allocation of interests in a fishery are important to the management of public resources. Several factors could affect the fairness of a quota distribution including breadth of the distribution and historical reliance. A broad distribution of quota may better reflect reliance on the fishery. The Magnuson-Stevens Act states that any new IFQ program shall provide for a fair and equitable initial allocation of individual fishing quotas (§ 303(d)(5)(C)).

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

##### *Entry Opportunities*

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

##### *Excessive shares*

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

##### *Competition*

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

##### *Skipper/crew concerns*

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

### *Community stability*

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

### *Spillover effects on other fisheries - processor side*

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

### *Efficiency in the fishery*

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

## **5. High levels of occupational loss of life and injury**

### *Safety*

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

## Alternatives

*NEPA Guidance: The content and scope of the discussion of alternatives should depend on the nature of the proposed action. The evaluation of alternatives is governed by the rule of reason that requires a Draft EIS to consider a range of alternatives that could accomplish the proposed action's purpose and need. The court has stated that the content and scope of the discussion of alternatives should depend upon the nature of the proposed action (NRDC v. Callaway). In general, if the statement of purpose and need has been clear and concise and all of the alternatives satisfy the purpose and need, then the courts will uphold the alternatives discussion in the EIS. The number of alternatives within the reasonable range is directly related to the statement of purpose and need. (Bass et al. 2001, The Shipley Group 1998)*

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

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

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

At this stage the range of alternatives for Council consideration is as follows:

Alternative 1 - Status Quo FMP

Alternative 2 - Rationalization FMP

Alternative 3 - no fishing FMP

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

If the decision is made that a mitigation measures alternative is good idea, we proposes a ‘no fishing’ alternative as the mitigation alternative, because the environmental effects, most likely, will be from the prosecution of fisheries. A ‘no fishing’ alternative will allow the EIS to properly evaluate the magnitude of the effects on the human environment caused by the proposed action and no action alternatives. The Council may also choose another mitigation alternative that would mitigate the effects of the crab fisheries, such as a rationalization program with additional environmental mitigation components, such as 100% observer coverage.

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

### **Cooperating Agencies and Tribal Governments**

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

### **Preparation of the EIS**

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

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

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



## Organizational Structure of the EIS

The CEQ regulations that implement NEPA recommend a format for organizing an EIS (40 CFR 1502.10). Federal agencies are given the flexibility to modify the standard format to encourage good analysis and provide for a clear presentation of the alternatives including the proposed action. A draft outline has been prepared for this EIS that encompasses all of the required elements for an EIS, but organizes the presentation of information, alternatives, and issues in a way that best meets the needs of this project. The draft outline is a work in progress and many sections and subsections are likely to change, be moved, or be added as the analysts prepare the draft EIS.

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

### Draft Outline and Deadlines

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

#### Section

#### **Chapter 1** Purpose and Need for Action

- 1.1 Introduction
- 1.2 Action Area
- 1.3 Purpose and Need for Action
- 1.4 Public participation
  - 1.4.1 Notice of Intent and Scoping
  - 1.4.2 Public participation in development of rationalization
- 1.5 Coordination with other agencies
- 1.6 Issues to be addressed in the EIS
- 1.7 Related NEPA Documents
- 1.8 Relationship of this action to other federal laws and action

#### Due Date

**June 2002**

## Chapter 2 Alternatives

2.1	Development of the Alternatives	<b>June 2002</b>
2.1.1	How the alternatives are constructed	
2.2.2	Key policy issues and decision points in the development of the alternatives	
2.2.3	NMFS and Council development of Alternatives	
2.2	Alternative 1: Status Quo - FMP	<b>April 2002</b>
2.2.1	Category 1 - Federal management measures fixed by the FMP	
2.2.2	Category 2 - framework management measures ( <i>What is in the FMP, what is in the State regs, and why</i> )	
2.2.3	Category 3 - management measures deferred to State	
2.3	Alternative 2: ????????? <sup>1</sup>	<b>June 2002</b>
2.3.1	Description of alternative	
2.3.2	Description of potential changes to FMP measures resulting from IFQ ( <i>These are changes to FMP text required to implement the rationalization program</i> )	
2.4	Alternative 3: ?????????	
2.4.1	Description of alternative	
2.4.2	Description of potential changes to FMP measures resulting from IFQ ( <i>These are changes to FMP text required to implement the rationalization program</i> )	
2.4	Alternative 3: No Fishing <sup>2</sup>	<b>June 2002</b>
2.5	Comparison of the alternatives	<b>June 2002</b>
2.6	Alternatives considered and rejected <sup>3</sup>	<b>June 2002</b>
2.6.1	????????	
2.6.2	????????	
2.6.3	??????	
2.6.4	??????	
2.6.5	??????	
2.7	Impact Assessment Methodology	

## Chapter 3 Affected Environment

3.1	BSAI Ecosystem	<b>April 2002</b>
3.2	Crab Life History Approach (physical and biological environment)	<b>April 2002</b>
3.2.1	Larval stage	
3.2.2	Settlement stage	
3.2.3	Juvenile stage	
3.2.4	Adult stage	
3.2.5	Spawning stage	
3.3	Other Biological Resources	<b>April 2002</b>
3.3.1	Benthic species caught as bycatch in the crab fishery	
3.3.2	Benthic species impacted by pot gear	

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<sup>1</sup>Details of this alternative recommended by the Council.

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

<sup>3</sup>These are also for discussion purposes and may change in response to public and Council input.

- 3.3.3 Marine mammals
  - 3.3.4 Seabird
  - 3.3.5 ESA listed species present in action area
  - 3.3.6 Environment in vicinity of crab processors
  - 3.4 Features of the human environment **April 2002**
    - 3.4.1 History of the BSAI crab fishery (*This section can be summarized from the ADF&G AMR*)
    - 3.4.2 History of BSAI crab management
    - 3.4.3 Profile/Description of the BSAI crab industry
    - 3.4.4 Affected communities
    - 3.4.5 CDQ groups
    - 3.4.6 Other Fisheries in the BSAI
    - 3.4.7 Other human activity
- Chapter 4 Environmental and Economic Consequences of the Alternatives**
- 4.1 Anticipated changes to BSAI crab fishing patterns resulting from the alternatives **July 2002**

*(This section can be largely summarized from the Council's economic analysis)*

    - 4.1.1 Scenario 1: Status quo fishery (Alternative 1–No action)
    - 4.1.2 Scenario 2: ????????
    - 4.1.3 Scenario 3: ????????
    - 4.1.4 Projected changes to fleet composition (*vessels, skippers, crew*)
    - 4.1.5 Projected changes to processing practices (*shore-based, floaters, CPs*)
    - 4.1.6 Projected changes to State management of BSAI crab fisheries
      - 4.1.6.1 Fishing Seasons
      - 4.1.6.2 Pot limits
      - 4.1.6.3 Guideline Harvest Levels
      - 4.1.6.4 In-season adjustments
      - 4.1.6.5 Closed Waters
      - 4.1.6.6 Reporting Requirements
      - 4.1.6.7 Bycatch Limits
      - 4.1.6.8 Other Measures
    - 4.1.7 Projected change to Federal management of BSAI crab fisheries
    - 4.1.8 Projected changes to other State and Federal fisheries <sup>4</sup>
    - 4.1.9 Summary of expected changes in BSAI crab fishery
  - 4.2 Predicted effects of the alternatives on the life history stages of crab **August 2002**
    - 4.2.1 Effects of the alternatives on larval life stage
    - 4.2.2 Effects of the alternatives on settlement stage
    - 4.2.3 Effects of the alternatives on juvenile stage
    - 4.2.4 Effects of the alternatives on adult stage
    - 4.2.5 Effects of the alternatives on spawning stage
    - 4.2.6 Cumulative Effects on crab life history
  - 4.3 Predicted effects of the alternatives on other biological resources **August 2002**
    - 4.3.1 Effects of the alternatives on benthic species caught as bycatch in the crab fisheries
    - 4.3.2 Effects of the alternatives on benthic species impacted by pot gear

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<sup>4</sup>Federal groundfish fisheries, jointly managed scallop fishery, and State managed snail, GOA crab, Pacific cod, and hair crab fisheries.

4.3.3	Effects of the alternatives on marine mammals ( <i>non-ESA</i> )	
4.3.4	Effects of the alternatives on seabirds ( <i>non-ESA</i> )	
4.3.5	Effects of the alternatives on ESA listed species present in action area	
4.3.6	Effects of crab processing on water quality and substrate	
4.3.7	Other environmental consequences	
4.3.8	Commutative effects on other biological resources	
4.4	Essential Fish Habitat assessment	<b>August 2002</b>
4.5	Predicted effects of the alternatives on the BSAI Ecosystem	<b>August 2002</b>
4.6	Economic and socioeconomic effects of the alternatives ( <i>This section can be largely summarized from the Council's economic analysis</i> )	<b>August 2002</b>
4.6.1	Crab allocations and eligible participants	
4.6.2	Economic structure under FMP - status quo	
4.6.3	Economic structure under ??????	
4.6.4	Economic structure under ???????	
4.6.5	Effects of the alternatives on management and enforcement <sup>5</sup>	
4.6.5	Effects of the alternatives on communities	
4.6.7	Effects of alternatives on other State and Federal Fisheries	
4.6.8	Effects of alternatives on CDQ groups	
4.6.8	Commutative economic effects	
4.7	Regulatory Impact Review (RIR)	<b>July 2002</b>
4.7.1	Introduction	
4.7.2	Benefit-Cost Analysis	
4.7.3	Distributional impacts	
4.7.4	Evaluation of significance	
4.8	Initial Regulatory Flexibility Analysis (IRFA)	<b>July 2002</b>
4.8.1	Statement of Problem	
4.8.2	Objective Statement of Proposed Action and its Legal Basis	
4.8.3	Description of each Action	
4.8.4	Reasoning for, and focus of, an IRFA	
4.8.5	Requirement to prepare an IRFA	
4.8.6	What is a Small Entity?	
4.8.7	Description of Fleet, Fishery, & Industry Directly and Reasonably Indirectly Impacted by Proposed Action	
4.8.8	Discussion of the potential negative effects of alternatives on small entities	
4.8.9	Mitigation of negative impacts	
4.8.10	Recordkeeping and reporting requirements	
4.8.11	Summary and conclusions	
4.9	Environmental Justice Considerations	<b>August 2002</b>
4.10	Energy Requirements and Conservation Potential of Alternatives	<b>July 2002</b>
4.11	Cumulative Effects Assessment	<b>August 2002</b>
4.12	Summary and Conclusions	<b>August 2002</b>

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<sup>5</sup> Includes full discussion of recordkeeping, reporting, and catch accounting requirements of proposed programs.

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- Chapter 5:** List of Preparers  
5.1 EIS Steering Committee  
5.2 Project leaders  
5.3 Contributors  
5.4 Consultant contributors

**July 2002**

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

**Chapter 7:** Literature cited

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

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

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

**Appendix 4:** State crab regulations

### **Related NEPA Documents**

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

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