Alaska Department of Fish and Game
Board of Fisheries
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ALASKA BOARD OF FISHERIES

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Statewide King and Tanner Crab March 2017 Meeting

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ALASKA BOARD OF FISHERIES
Continuation of the Crab Observer Oversight Task Force

2014-274-FB
March 21, 2014

Pursuant to the Board's discussion and the requests of the stakeholders and their representatives, the board determined that the continuation of the Crab Observer Oversight Task Force (task force) for the crab observer program and the program receipts system is useful.

At its March 2014 Statewide King and Tanner Crab meeting, the Board received a report from the task force. The board approved maintaining the task force for an additional three years, approved a change that membership may range from nine (9) to fifteen (15) members, quorum may be achieved through a simple majority of members, and current members appointments are renewed. The board makes the following appointments:

Lance Farr – R/V Kevleen K
Doug Wells – C/P Baranof
Mark Gleason – Alaska Bering Sea Crabbers
Jerry Bongen – FV Pacific Venture
Ann Vanderhouven – Bristol Bay Economic Dev. Corp.
Jeff Stephan – United Fishermens' Marketing Association
Dick Powell – C/V Patricia Lee
Linda Kozak – Crab Group of Independent Harvesters
Edward Poulsen – Alaska Bering Sea Crabbers

The board will review the membership and the charge through the Board's next Statewide King and Tanner Crab meeting.

The charge to the Oversight Task Force is outlined in Board Finding 99-186-FB.

Karl Johnstone

Karl Johnstone, Chair
Alaska Board of Fisheries

Vote: 7 in favor, 0 opposed

Alaska Board of Fisheries

Task Force to Implement Bering Sea/Aleutian Island King and Tanner Crab Rationalization

2003 - 223 FB

Background:

For the past several years, the North Pacific Fishery Management Council had been working towards a plan to "rationalize" many of the Bering Sea and Aleutian Islands crab fisheries. In June of 2002, the council selected their preferred alternative that would, among other things, assign quotas, or shares, for both the harvesting and processing sectors.

While the council is still working on trailing amendments to the plan, it cannot be implemented until the U.S. Congress lifts the moratorium on new IFQ-type fisheries, or specifically passes legislation to allow this rationalization plan to go forward.

Under the council's fishery management plan for BS/AI crab, much of the fishery management is delegated to the State of Alaska. If the council finalizes its actions and Congress provides authorization, the Alaska Board of Fisheries will need to adopt new regulations to allow the fishery to be prosecuted as outlined by the council.

Charge:

At its March 2003 meeting in Anchorage, the Board of Fisheries will select stakeholders to examine possible actions the board will need to take concerning state regulatory structure for the Bering Sea/Aleutian Islands king and Tanner crab fisheries once the council finalizes its actions, and make recommendations on new regulations. It is anticipated that this task force will work very closely with staff from the Alaska Department of Fish and Game, the North Pacific Fishery Management Council, the National Marine Fisheries Service, and the Alaska Department of Law.

The task force is to work within the intent and scope of the council's plan, and any additional Congressional direction, to provide the Board of Fisheries with proposals to assist the implementation of the final rationalization plan.

The task force will begin its work when the rationalization plan is finalized and Congressional authorization is provided. At that time, the board will provide an timeline for the task force to complete its work.

The task force is composed of the following stakeholders:

Steve Minor	Arni Thompson	John Garner
Brent Paine	Jeff Steele	Leonard Herzog
Frank Kelty	Linda Kozak	

The Pacific Northwest Crab Industry Advisory Committee is an ad hoc member of the task force. Task force members are responsible for their own expenses to attend meetings.

The task force will maintain contact with the Board of Fisheries by reports to board member Art Nelson. An update will be provided to the board by member Art Nelson at the October 2003 work session.

Adopted: March 25, 2003
Anchorage, Alaska

Ed Dersham, Chair

Vote: 7 - 0

ALASKA BOARD OF FISHERIES
FINDING FOR AREA O BROWN KING CRAB SEASON
99-190-FB

Introduction

At a meeting on July 29, 1999, the Board of Fisheries (Board) amended 5 AAC 34.610(b) by moving up the date of the opening of the commercial Area O brown king crab season from September 1 to August 15 beginning in the 2000 season. Earlier at the March 1999 meeting the Board had moved the Bristol Bay red king crab season from November 1 to October 15. After the meeting, Area O brown king crabbers petitioned the Board under 5 AAC 39.998 to consider a corresponding change for the Area O brown king crab season to avoid an overlap in the seasons that would prevent participation in both fisheries.

Written and oral staff reports on the brown or golden king crab fishery, stock status, and the effect of a season change were presented by Alaska Department of Fish and Game (ADF&G) biologist Forrest Bowers. Because of past Board action in 1996 dealing with season opening dates for the eastern and western Aleutians, the Board focused their discussion on the last three brown king crab seasons.

FMP Criteria

As required by the Fishery Management Plan for Bering Seas/Aleutian Islands King and Tanner Crabs (FMP) criteria for Category 2 – Seasons measures, the Board discussed deadloss, product quality, biological seasons, weather concerns, costs to industry, and coordination with other fisheries.

Deadloss: The Board expressed some concern over deadloss, but acknowledged that there are multiple factors that impact deadloss, and didn't expect a 16-day season change to make a significant difference for the Area O fishery.

Product Quality: Since the western Aleutians area is typically open year-round, and no quality issues have been identified in that fishery, the board was satisfied that similar quality standard could be maintained throughout the eastern Aleutians in mid-August.

Biological Seasons: Golden king crab mating and molting occurs year-round. Therefore, there is no infringement on a defined mating and molting season. Staff could see no biological impacts from moving the fishing season.

Weather Concerns: Severe Weather can be expected year-round in the Aleutians, but the frequency of bad weather was expected to be greater in the fall than in the summer.

Costs to Industry: Over the long term, this season change was seen as potentially less costly that a season where vessels had to redeploy gear after the end of the Bristol Bay red king crab season.

Coordination with Other Fisheries: Board members also pointed out that moving the season up would maintain status quo of timing relative to the Bristol Bay red king crab season. The North Pacific Fishery Management Council staff saw no effects on groundfish fisheries and noted that pollock fishing began September 1.

Magnuson-Stevens Act National Standards

The Board reviewed and discussed the National Standards set out in the Magnuson-Stevens Act in the context of moving the brown king crab season to August 15, as follows:

National Standard 1, Preventing Overfishing while Achieving Optimum Yield: The season change would have a positive effect by keeping the existing relationship between the brown king crab and red king crab seasons.

National Standard 2, Best Scientific Information: The Board believed it had the best information available to make a decision.

National Standard 3, Individual Fish Stocks Managed as a Unit, Interrelated Stocks Managed in close coordination: The season change would be consistent with this standard.

National Standard 4, Allocations Fair and Equitable to All Fishermen: There was no indication or information that the season change would have any adverse effects, but, in fact, it would avoid allocative impacts.

National Standard 5, Efficiency in Utilization: Coordination of the fishing would have a positive effect on the efficiency in utilization of the resource.

National Standard 6, Taking into account and Allowing for Variations and Contingencies: Maintaining relationship between the brown and red king crab seasons would have a positive effect.

National Standard 7, Minimization of Costs and Avoiding Unnecessary Duplication: As explained above, a season change would have a positive effect.

National Standard 8, Impact on Fishing Communities: Coordination of the two fisheries would have only positive effects.

National Standard 9, Minimization of Bycatch: No indication of an adverse effect on bycatch.

National Standard 10, Promote Safety of Life at Sea: Earlier season, with slightly better weather, would have a positive effect.

The NPFMC concurred with the Board's application and assessment of the National Standards.

State Law Criteria

The Board referred to the allocation criteria found in AS 16.05.251(e), but, with Department of Law's confirmation, determined that no allocation was effected by the season change.

Effective Date

The Department of Law indicated that an emergency regulation would be needed to implement the season change for the 1999 season. The Board adopted an amendment to have the season change take effect beginning in 2000; and to keep the status quo for the 1999 season because no emergency was apparent. The Board also expressed concern that some participants had already scheduled vessel maintenance based on the existing season regulation and would be unable to participate in an earlier season this year.

The Board voted for the season change, six in favor, zero against, one absent.

ADOPTED: Oct 29, 1999
Fairbanks, Alaska

Dan Coffey, Chair
Alaska Board of Fisheries

VOTE: _____

ALASKA BOARD OF FISHERIES
CDQ CRAB FINDINGS
99 - 189 - BOF

The Board of Fisheries (board) met in Anchorage, Alaska from March 18 to March 28, 1999. During this meeting, the board discussed an agenda change request (ACR 27) filed by Alaska Crab Coalition. ACR 27 proposed restricting Community Development Quota (CDQ) groups from fishing a portion of their CDQ crab prior to the main crab fisheries, which was allowed under the existing CDQ crab management plan (5 AAC 39.690)

Background

The board approved a crab CDQ management plan in March 1997 using a commissioner's permit. During a presentation by state staff at the March 1997 board meeting, the board was informed of the possibility that the department might allow preseason CDQ crab fishing if ADF&G (department) staff could be convinced there would not be any major management problems conducting a preseason fishery. The department made it clear during staff testimony that there would not be any preseason CDQ crab fishing during the first year of CDQ fishing (RC 193). This hiatus would allow the department to understand the differences of the CDQ fishing from open access fishing. After the 1998 opilio CDQ fisheries were completed without significant problems, the department staff were willing to allow preseason CDQ fishing for the 1999 opilio season, if all conditions of the commissioner's permit were met.

For comparison, National Marine Fisheries Service (NMFS) allows CDQ groups to conduct preseason CDQ fishing for several groundfish species.

NPFMC

The North Pacific Fishery Management Council (council) discussed preseason CDQ crab fishing during its October 1998 meeting. The council deferred the issue to the State of Alaska to be addressed by the Board of Fisheries in the March 1999 meeting.

CDQ Agenda Change Request 27

The board passed the existing regulation 5 AAC 39.690(e)(7) in March of 1997. During the adoption of the board proposal that led to this regulation, the board thoroughly evaluated the proposal against the FMP, the national standards and other applicable law. Because it was not challenged, this regulation has withstood Secretarial review and the FMP appeals process. Before the regulation was actually implemented, the board agreed, at its October 1998 work session, to reconsider this regulation in respect to industry concerns and approved ACR 27.

The Pacific Northwest Crab Industry Advisory Committee (PNCIAC) endorsed ACR 27 during its January 6, 1999 meeting in Seattle. The vote was 7 for, 2 abstain (RC 37). Their concerns were that opening CDQ fisheries prior to the open access fisheries will have negative market impacts and fair start implications.

March 1999 Board Meeting

The board met in Anchorage from March 19 - 28, 1999. During that time, the board considered the issue of preseason CDQ crab fisheries.

The department presented reports and material pertinent to ACR 27, along with verbal testimony. The department was neutral on this issue.

There was oral and written public testimony presented on preseason CDQ crab fishing. The majority of the Bering Sea crab fleet did not want the board to allow preseason CDQ fishing and favored ACR 27. CDQ group representatives testified against ACR 27, since preseason fishing would be a way to optimize the value of their quota. The groups noted that prices received for preseason CDQ crab could offset decreased prices for post-season CDQ crab.

The board's in-meeting committee met on March 21, 1999 at the Captain Cook Hotel. Supporters of the proposal raised fair start issues, possible negative economic impacts and product quality concerns. They argued that, if the CDQ vessels fished snow crab prior to the open access red king crab fishery, they would have an advantage with the knowledge of recent crab distribution (exploratory fishing). Most comments centered around the economic impact of the CDQ fishery putting any amount of crab on the market prior to or during price negotiations (export and ex-vessel) and they were concerned that it would most often be a negative impact. They were additionally concerned that a preseason CDQ harvest would place poor quality crab on the market, which would have a negative economic impact the open access fleet. They commented that CDQ groups already have a guaranteed harvest allocation and that if the groups were concerned about post season prices and scratch fishing, they could fish during the open access fishery.

Opponents of ACR 27, argued for status quo within the guidelines of their public testimony. They also stated it was not in the CDQ groups' best interest to market poor quality crab, that they would be harvesting only 50% of their 7.5% CDQ allocation and that any advantage to the groups would even out by harvesting picked over crab after the open access fishery. There was no consensus for a public panel recommendation nor was there a board committee recommendation. There was discussion about a proposal which essentially held the provisions of the industry compromise. The issue needed board debate.

ACR 27 was discussed on March 25 and 26, 1999. The board began by discussing Committee D's summary, and moved to the PNCIAC's recommendation. The board clarified points with department staff and discussed whether there were any enforcement problems. The board discussed an impending agreement between the two interested parties and tabled the issue to the following day in anticipation of receiving an agreed upon compromise. Overnight, a compromise was reached by several of the industry participants and the CDQ groups. The language was presented to the board at 9 a.m. on March 26. After some discussion addressing national

standards, health of stocks, and fair start, the board again tabled the issue and designated a period for reviewing public input on the industry compromise. After reviewing public comments, the board addressed possible conflicts on fair start issues by reconsidering proposal 355 before resolving the CDQ preseason fishing option. In the final debate, the board covered the Magnuson-Stevens Act national standards, the size and health of the resource, the criteria and standards incorporated into the March 1997 CDQ management plan, and the relatively small amount of crab that would be on the market early if preseason fishing were allowed. The board decided to accept the general principles of the compromise item.

Board Decision

The board noted that its action was, in some ways more restrictive than the original proposal, acknowledging that the original proposal was only to restrict the timing of CDQ fisheries. The percentage the CDQ groups were allowed to harvest preseason was reduced from the existing 50% to 30%. Another added restriction was the 50 million pound minimum GHL provision, which eliminated the possibility of a preseason CDQ fishery for most of the smaller CDQ fisheries, such as the St. Matthew, Pribilof, and Bristol Bay fisheries, at least in the foreseeable future. The Board confirmed on the record that this action would not except the CDQ fisheries from the restrictions of the preseason 14-day stand down period for opilio and the 30-day stand down period for king and bairdi fisheries adopted earlier by the Board. In other words, any vessel or person that participated in a preseason CDQ fishery during the applicable stand down period would be ineligible to participate in the open access fishery.

The board's action in March 1999 provided more definition and restrictions to the existing regulation to recognize some of the concerns of industry, yet balance the needs of the CDQ groups.

Appeal

The board's decision on preseason CDQ fishing was appealed by Alaska Fisheries Conservation Group. The appeal cited lack of specific Congressional approval and not meeting national standards.

A Board of Fisheries teleconference on the appeal of ACR 27 (among others) was held on May 14, 1999. The board found the appeal did not meet the criteria set out in 5 AAC 39.998 and denied the appeal.

ADOPTED: Oct. 29, 1999
Fairbanks, Alaska

Dan Coffey, Chair
Alaska Board of Fisheries

VOTE: _____

ALASKA BOARD OF FISHERIES
Findings for Bering Sea Tanner Crab Management Plan
Incorporating a New Harvest Strategy
99 - 188 - FB

The Board of Fisheries considered a new harvest strategy for Bering Sea/Aleutian Islands (BSAI) Tanner crab *(Chionoecetes bairdi)* under Proposal 281. The Board took staff reports, heard public testimony and Fish and Game Advisory Committee reports, and then submitted this proposal to Committee A for discussion and recommendations.

Two written staff reports were submitted as supporting documentation for this proposal: *"Bering Sea Bairdi Tanner Crab Fishery, 1998"* (RC4, Tab 4) by Rance Morrison, and *"Overview of Population Dynamics and Recommended Harvest Strategy for Tanner Crabs in the Eastern Bering Sea"* (RC4, Tab 18) by Jie Zheng and Gordon Kruse.

Two oral staff reports were presented relevant to this proposal: *"Stock and Fishery History and Current Status of Tanner Crabs in the Eastern Bering Sea"* (RC4, Tab 31), by Gordon Kruse, Rance Morrison and Jie Zheng, and "Review of harvest strategies for Tanner crabs" (RC4, Tab 33) by Gordon Kruse, Dan Urban and Jie Zheng. ADF&G Staff Comments were presented in RC 4, Tab 37, and Page 8. The advisory committee comments (RC 110), public comments (RC 69, 85, 102, 111), staff comments (RC 4, Tab 37), and record copies (RC 102) related to the various proposals are identified in attachments to the committee report.

This proposal intended to establish a Tanner crab management plan for the Eastern Bering Sea Subdistrict of Area J. The plan is intended to improve fishery management by linking harvest rates to changes in stock productivity indexed by recruitment strength. Higher harvest rates are applied during an upward recruitment cycle and lower harvest rates are applied during a downward recruitment cycle. Moreover, a threshold is established below which no fishing is allowed to protect the breeding population. These features foster the rebuilding of the Eastern Bering Sea Tanner crab stock that was classified as "overfished" by the Secretary of Commerce in March 1999 under the federal Fishery Management Plan. There are seven key points to the harvest strategy, as described below.

(1) Establish a threshold level of abundance of 21.0 million pounds of mature (>79 mm carapace width) female Tanner crab biomass. The commercial fishery for Tanner crabs in the Eastern Subdistrict of the Bering Sea District may open only if an analysis of preseason survey data indicates that the population has met or exceeded this index of abundance. The commercial fishery for Tanner crabs in the Eastern Subdistrict of the Bering Sea District will not open if preseason survey data indicates that the population is below this index of abundance. The public asked for clarification of definitions of several terms related to the proposal. They asked the Department to indicate in what years would the Tanner crab season have been closed under this

plan. The department indicated that the fishery would have been closed in 1985, 1986, 1996, 1997 and 1998, if this plan had been in effect.

(2) Establish a 4.0 million pound minimum threshold level for any harvest occurring incidental to the Bristol Bay red king crab fishery and in any directed Tanner crab fishery in the area east of 168° W. The department stated that this level was indicated on the basis of harvest levels that were manageable as bycatch in the Bristol Bay red king crab fishery. The public was concerned about why this harvest strategy utilizes mature female biomass rather than number of animals in calculating threshold levels. The department stated that this was due to the fact that reproductive output and, ultimately, recruitment to the fishery is more closely related to parental biomass rather than number of animals.

(3) Establish the exploitation rate when the stock is greater than or equal to 21.0 million pounds of mature female biomass but less than 45.0 million pounds of mature female biomass. In this case the harvest rate will be 10% of the molting mature male abundance or 50% of the exploitable legal size male abundance, whichever is less. The public asked the Department to define legal size (5.5" width or greater) and molting, mature males (100% of newshell and 15% of oldshell crabs 113 mm or greater width) as well as exploitable legal size males (100% of newshell and 32% of oldshell crabs 5.5" or greater in width). The department also explained that the National Marine Fisheries Service annual trawl survey is used to collect data for abundance estimation using a length-based analysis (LBA) model. Public suggested that perhaps the 50% cap on legal male harvest mentioned above is too high and that perhaps 20-30% would be more appropriate.

(4) Establish the exploitation rate when mature female biomass is equal to or greater than 45.0 million pounds. Under this scenario, the harvest rate is set at 20% of the molting mature male abundance or 50% of the exploitable legal size abundance, whichever is less. The public asked why the maximum allowable harvest rate is greater for Tanner crabs than for red king crabs in Bristol Bay. The department stated that this is due to differences in rate of reproduction, mortality, and biology of the two species. The public also asked how this harvest rate compares to those utilized in prior fisheries. The department responded that this is generally a lower harvest rate, except that it is higher when the stock is increasing in abundance. The public indicated its support for this part of the strategy.

(5) Establish separate guideline harvest levels for both sections of the Eastern Bering Sea Sub-District based on the respective abundance of animals in those areas. The western portion is between 168° W. long. to 173° W. long., and the eastern portion is defined as waters east of 168° W. long. Based on the respective abundances of molting mature male crabs, the guideline harvest level for the Eastern Subdistrict of the Bering Sea District would equal

the sum of the guideline harvest levels for the areas east and west of 168° W. long. if both areas are opened to fishing. This language was supported by industry.

(6) Add a provision dealing with the situation when any portion of the Eastern Sub-District is reopened to fishing after being closed to all commercial fishing due to low abundance in the preceding season. The reopening will occur when one-half the computed GHL is greater than or equal to four million pounds. If the fishery remains closed because the calculated GHL does not reach 4 million pounds due to a precautionary 50% reduction, then the following season may open if the calculated GHL is at least four million pounds. There was some public confusion as to when a fishery could occur under this scenario, so the Department clarified that the 4.0 million pound threshold need only be reached one year for a fishery to occur the next year.

(7) The final part of the strategy states that the Department will consider the reliability of the estimates, the manageability of the fishery, and other factors necessary to be consistent with the sustained yield principles, and the best scientific information available. There was support for this section. The public asked how the harvest strategy fit in to the federal Fishery Management Plan's requirements for rebuilding the Eastern Bering Sea Tanner crab stock. The Department stated that the harvest strategy is one of three parts; the other parts are by-catch reduction measures and habitat protection. To describe these requirements, RC 104 was introduced.

In considering staff reports, the status of the resource, and committee and public support for the proposal, the Board of Fisheries adopted the proposed new harvest strategy including all seven points listed above. This adoption was made in the belief that this harvest strategy has a rebuilding capability that complies with federal requirements to rebuild the Eastern Bering Sea Tanner crab stock to levels capable of supporting maximum sustainable yields within 10 years.

ADOPTED: 10/29, 1999
Fairbanks, Alaska

Dan, Coffey Chair
Alaska Board of Fisheries

VOTE: 6O-1
one abstention

ALASKA BOARD OF FISHERIES
FINDINGS ON BRISTOL BAY RED KING CRAB FISHERY
MARCH 1999 MEETING, ANCHORAGE

I. Introduction

At its March 1999 meeting in Anchorage, the Board of Fisheries (Board) adopted regulations that (1) move the opening of the Bristol Bay red king crab season from November 1 to October 15 (2) and extend the preseason gear operation restriction from 14 to 30 days and include trawl with the types of gears that are prohibited for those who want to participate in the crab fisheries. These written findings explain the board's reasoning for these regulatory actions and satisfy the requirement for written findings found in the Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crab (FMP).

II. Season Change

The Board moved the Bristol Bay Red King Crab season up by sixteen days to benefit the industry by reducing the time between the Pribilofs and St. Matthews king crab fisheries, saving time and money for the fleet. Information before the Board showed that an extended period between fishing seasons makes it both expensive and difficult for vessels to hold crewmembers, requires vessels to remain proximal to the Bering Sea grounds for long periods that raise costs, and makes vessel yard maintenance difficult to schedule. On the other hand, moving the season up two weeks would help address these concerns and provide a longer maintenance window prior to the C. opilio Tanner crab fishery. The Board recognized that an earlier season would have an impact on those vessels that fished for groundfish in the same area and then participated in the crab fishery because they usually fished through October. But the Board weighed that impact against the benefit to the rest of the fleet and found the benefits to the fleet from an earlier season outweighed the negative impacts.

The Board also noted that the earlier season was likely to result in somewhat better weather and vessel safety conditions. The Board acknowledged that the earlier season might result in some slight increase in dead loss and meat fill, but found those impacts insignificant when weighed against the benefits of an earlier season.

A. The Board Information-gathering and Meeting Process

The Board acted on a proposal that had been submitted to it by a crab fisherman before April 10, 1998, almost a year before its March 1999 meeting in Anchorage. This proposal, along with all other proposals submitted the Board for consideration during its 1998-99 meeting cycle, was published in the Board's annual proposal book and was

distributed to the public in July 1998. The proposal was reviewed by user groups and advisory committees, including the Pacific Northwest Crab Industry Advisory Committee (PNIAC), which was established by the FMP to provide nonresidents of Alaska access to the FMP and Board regulatory process. At its meeting in Seattle on January 6, 1999, the PNIAC voted to oppose Proposal 287 and support the status quo. Public Comment 37 at 4, March 1999 Board of Fisheries Record, RC 1.

The Board recognized that Proposal 287, as a request to move the opening season date from November 1, to October 10, was an FMP Category 2 framework issue, requiring consideration of specific FMP criteria and the Magnuson-Stevens Act national standards, as well as consistency with state legal requirements.

The Board took staff reports at the beginning of the meeting, took public testimony, and then broke into committees to address similar proposals. Proposal 287 was assigned to Committee E – Bristol Bay King Crab. See, RC 142, Committee E Report. Other relevant reports or comments to the Board were: Staff Reports, RC4 (Tabs 1, 2, 13, 14, 17, 27, 28, 29); Staff Comments, RC4 (Tab 37, page 11); Advisory Committee Reports, RC110; and Public Comments, PC 37 and RC69, RC85, RC102, RC111.

During committee discussion of this issue, it was noted that this proposal would move the opening closer to the Pribilof and St. Matthew fisheries in the Bering Sea. The stated basis for the proposal was to avoid "higher start-up costs for the entire industry. Weather concerns are also a factor." The goal was to reduce down time between the early red/blue king crab fishing seasons and the Bristol Bay red crab season. The proposer stated that he believed that moving the November crab fishery closer to the September crab fisheries would provide real benefits by eliminating the cost of mobilizing vessels and processing crews for the Bristol Bay season and allow a time window for vessel maintenance.

The committee discussed the pros and cons of moving the start date from November 1 to October 10. Though many agreed there were benefits, many of the participants were uncomfortable with a starting date as early as October 10. The proposer suggested moving the opening date to October 15. There was lengthy discussion on whether to move the start to the 10th or the 15th of October. There was consensus from all but one member of the public to move the date to October 15.

The Committee report and public testimony indicated that the following industry points for and against this proposal were raised in the committee discussion:

Points against:

(1) crabs may have less meat fill than if the season starts on November 1;

(2) possible dead loss if surface and bottom temperatures are greatly different;

(3) fishermen participating in the Bering Sea Korean hair crab fishery would be unable to participate in the Bristol Bay red king crab fishery;

(4) trawl vessels which have fished in this area would be excluded regardless if the date were the 10th or 15th of October, because the trawl fleet normally fishes through the end of October.

Points for:

(1) moving the red crab season just a few weeks earlier allows better market timing to distribute crab into the Japanese holiday season markets;

(2) better weather in October for small boat safety concerns;

(3) extra time for vessel maintenance after red crab fisheries and before the start of Bering Sea *C. opilio* fishery;

(4) less down time between the Pribilof/St. Matthew and Bristol Bay king crab fisheries, which would save the fleet and processors money;

(5) eliminating trawl vessels from 'crossing over' to the Bristol Bay red king crab fishery from the pollock fishery.

Discussion covered all of the above points and concerns. The Department indicated that it would work with the Bering Sea Korean hair crab fishers to eliminate their fishery's conflict with the Bristol Bay red king crab fishery if this proposal were adopted.

One member of the committee representing trawl catcher vessels expressed concern that this proposal will exclude some crab vessels that have historically also fished in the Bristol Bay red king crab fishery after the trawl season. He stated that this would be the case regardless if date was set for the 10th or the 15th of October because the trawl fleet fishes through the end of October.

From the committee, the public panel recommendation was to move the opening date to October 15. This recommendation was a consensus from all but one member, representing trawl fishers. The recommendation from the Board committee members was also to move the opening date to October 15 and provide the full Board with regulatory substitute language for Proposal 287.

B. Board Deliberations of Proposal for Season Change

The full Board received the committee minutes and a review by Committee Chair who described issues brought forward in the Committee. Transcript of Board Deliberations on Proposal 287 (Tr.) at 1-4. Substitute language from RC 142, p. 17, amending 5 AAC 34.810(b)(1) to provide a starting season date of October 15, was placed before the Board for its consideration and vote. Tr. 1. The Board went through the FMP framework for fishing seasons and discussed the various National Standards pertinent to this decision. As explained below, the Board attempted to meet the economic, safety and social concerns without significantly reducing quality or increasing deadloss.

1. The Board Properly considered the FMP Category II criteria for fishing seasons.

Regulations opening commercial crab fishing seasons are FMP Category II measures. The FMP contains specific criteria to be considered by the Board in adopting such measures. FMP at 35-36. The Board's consideration of the criteria is outlined below.

Minimization of deadloss: The FMP lists minimization of deadloss as one goal of the FMP: "Deadloss has been found to increase if crabs are in soft-shell condition, if they are held for long time periods, if holding tanks are contaminated with fresh or warm water, or if crabs are handled too often." FMP at 36.

The Board recognized that the pre-1990 September seasons saw more dead loss than the current season. Tr. 8-11. ADF&G presented information on the historical rates of deadloss in the fishery. RC 4, Tab 2 at 7-8. The data indicated that during the years when the season opened on September 25 (1985-1989), the average rate of deadloss was .0094. RC 4, Tab 2 at 7. Although, if one extremely high year, 1986 with a rate of .0249, was removed from the equation, then the average rate for the remaining years dropped to .0058. *Id.* The average deadloss rate for the years that the season opened on November 1 (1990-93, 1996-98) was .0044. *Id. at 8.* Four of the later years (1990, 1991, 1993 & 1998) had higher deadloss rates than two of the earlier years (1985 & 1988). *Id.* at 7-8.

There was some speculation that increases in deadloss were caused by the temperature differential between the surface and the bottom. In the summer months, the temperature is more stratified, but by November the stratification has broken down. Tr. 9. But in the Board discussion, they recognized that surface water temperatures change from year to year. Tr. 9. The Board asked staff whether a two-week change was significant. Tr. 10. Staff reported to the Board that changes in dead loss were more associated with fresh water than ocean temperature, and that any "difference in dead loss due to temperature over a two-week period would be quite insignificant." Tr. 11. The Board agreed with that conclusion. Tr. 12, 16-17.

Although not expressly expanded upon during the March Board meeting discussion, the Board is aware that past Board records indicate that dead loss was a function of crab caught in pre-season bait-up periods and then held in holding tanks when fresh water was prevalent and adequate processing not available. See, Tr. 11. When processing capacity would catch up with production, dead loss would decline. In early years, large GHLs and long seasons exacerbated this problem and increased dead loss. Fishermen tended to overload their tanks with crab and hold them too long before off-load.

Product quality: Another goal under the FMP for opening seasons is achieving the best possible product quality. FMP at 36. The Board discussed the potential for crab having more or less meat fill depending on the starting date. Tr. 7-8. Some of the information indicated that crab caught in September were smaller and weighed less than those caught in November. Dr. Otto indicated that the difference may have been partially due to differences in recruitment and thus the size of crabs available to the fishery. Crabs gained about a pound between the old and new seasons. The impact of a two-week

period on weight gain, as opposed to five weeks, was less certain. Tr. 8. The Board concluded that the closer the start date was to September 25, the previous start date, the less meat fill expected, and the closer to November 1, the more the fill. So somewhere in between may produce some amount of quality consideration. The Board felt that any loss in meat fill would be offset by the advantages of an earlier season.

Minimization of fishing during severe weather conditions: Another FMP goal is to minimize fishing during severe weather conditions. FMP at 36. In regards to this issues, some small vessel owners testified that an earlier season would have better weather for small boat safety. RC 142 at 6. But here again, the Board noted that though the old September season was best and November period is more of a concern, moving it only two weeks is not a huge safety gain. Tr. 12, 17.

Minimization of the cost of industry operations: Another FMP goal for opening seasons is to minimize the cost of industry operations. FMP at 36. The Board noted that hiring and keeping crews was clearly problematic throughout these fisheries because of the shortening of seasons and because declining fishing productivity influences prices and, therefore, crew shares. Tr. 12. Extended periods between fishing seasons makes it both expensive and difficult to hold crewmembers. Tr. 12. Additionally, it requires vessels to remain proximal to the Bering Sea grounds for long periods that raise costs and make vessel yard maintenance difficult to schedule. Tr. 3, 12. Moving the season up two weeks would help address these concerns and provide a longer maintenance window prior to the opilio fishery. Tr. 3, RC 142 at 6.

Coordination of fisheries: The FMP also requires the Board to consider methods that coordinate the fisheries that have the same demands on harvesting, processing and transportation systems. FMP at 36. Additionally, it states that seasons can be timed relative to one another to spread fishing effort, prevent gear saturation, and allow maximum participation in the fisheries by all elements of the crab fleets. *Id.* Over-lapping or reducing the space between various crab fisheries achieves this goal for the crab industry.

The demands on harvesting, processing and transportation systems in the crab fishery did not appear to conflict with those other fisheries that are ongoing at the same time. The Board was given no information to that effect. There appeared to be no specific concerns of gear saturation or spreading of fishing effort presented by a sixteen-day advance in the opening of the season.

Concern over participation of the Korean Hair crab fleet was dealt with, and the Board recently took steps to address participation by the Area O Brown king crab fleet. Tr. 16.

The Board was quite aware that an earlier season would have an impact on the participation in the crab fishery of those trawl vessels that fish in the same area for pollock during a season that would overlap with tan earlier season. RC 132, Tr. 18. The record indicated that crabber/trawlers that fish in the Bering Sea B-season pollock fishery

would often be forced to decide between fishing throughout the entire B-season pollock fishery or stopping early to participate in the Bristol Bay king crab fishery. Tr. 6-7. This would have the tendency to reduce the number of trawl participants in the crab fishery.

One industry committee member indicated that moving the season would benefit dedicated crab operators since it could reduce opportunity to trawl cross-over vessels who wanted to fish Bristol Bay red crab. But the Board felt that this was an inappropriate basis for them to make a decision, as expressed by Vice-chair Dan Coffey:

> [A]s I said in our earlier presentation, I don't think we should, by indirection, do that which we are not allowed to do directly, which is limit entry into a fishery. If the effect of our action is justified by other things, such as the pluses that Mr. Engel identified and things in the – in the management plan, which we've been discussing, and it has a consequence of excluding folks from the fishery, but we're doing it for legitimate reasons within the management plan and within our authority, well, so be it, that happens a lot, the unintended allocative consequence, because we're facing that all the time. And – I'm perfectly willing to accept those consequences. What I'm not prepared to do is to take action that is not otherwise justified simply for the purpose of excluding people from the fishery, particularly in light of the instructions for maximum participation in the fishery....

Tr. 18-19.

The earlier season adopted by the Board does not "limit access" to the fishery as contemplated by FMP Category I provisions. The circumstances described there involve limitations on admission to a user group and restrict who can participate in the fishery at all.

In this case, the start date does not exclude any fishers from participating in the Bristol Bay red king crab fishery unless by their own choice to participate in another fishery. Every regulation that limits a fishing season has the potential to require some who might otherwise be able to participate, but want to participate in another ongoing fishery, to make tough decisions.

In this fishery, as in any other fishery such as salmon or groundfish, there are usually other fisheries that overlap or occur at the same time, preventing fishers from participating fully in both. Considering the actual level of annual participation by vessels that fish crab; it is obvious that each participant must annually evaluate whether to participate in a particular crab fishery or use their vessel to some higher economic benefit. The election to participate in a particular fishery is a universal quandary that fishermen face annually. The Board made changes for legitimate reasons within the FMP and within its authority, and unintended consequences occur frequently in fishery management. If the Board could not allow any overlap in such fisheries, consideration of all other criteria and public policy concerns would be lost to the Board.

Because the Board recognized that a decision might have allocative effects, even though not intentional, the Board reviewed and discussed the allocation criteria found in AS 16.05.251(e).

Reduction of costs of enforcement and management: The department did not believe the reduction of enforcement and management costs before, during and after the season would be significantly impacted by the change in start date.

2. The Board properly considered the Magnuson-Stevens Act National Standards

Since this was a Category II measure with specific criteria laid out for the Board's consideration in the FMP, the Board did not spend a lot of time discussing the Magnuson-Stevens Act National Standards, presuming that the specific FMP criteria were designed to produce regulations consistent with the National Standards. The Board, in reviewing each of the National Standards as they relate to this proposal, found that many of the standards were not applicable, and that those that were applicable were largely irrelevant due to the small shift in season timing.

National Standard 1: The Board did not believe the prevention of overfishing was an issue in its decision. Tr. 13-14.

National Standard 2: The Board believed it had "some pretty good data on the criteria" to consider and did not think it was "relying on anything other that the best scientific information. Tr. 14.

National Standard 3: It didn't believe management of the crab stock as a unit throughout its range was at issue. Id.

National Standard 4: As to discrimination between residents of different states, the Board felt there was no discrimination involved in its decision because there were both state residents and nonresidents involved in the fisheries, and that season changes did not discriminate relative to residency. Tr. 14.

National Standard 5: Even though not expressly addressed to the National Standard 5, the Board decision was based largely on its desire to promote efficiency in the utilization of the the Bristol Bay king crab stocks. Tr. 3, 12, 16.

National Standard 6: The Board found little guidance in this standard. Tr. 14.

National Standard 7: Even though not expressly addressed to the National Standard 7, the Board decision was based largely on its desire to minimize costs in the utilization of the the Bristol Bay king crab stocks. Tr. 3, 12, 16.

National Standard 8: The Board felt that determining the effect on communities was very, very difficult to determine, and could not see how the season change made a difference. Tr. 15.

National Standard 9: The minimization of mortality of bycatch was discussed but not felt to be significantly affected by the season change.

National Standard 10: While the Board felt like an earlier season meant it would be a little safer for human life at sea, it also believed the magnitude of the change contemplated by the regulation would outweigh all other considerations. Tr. 15.

Generally, the Board noted that the primary focus would be on deadloss, quality and safety – but only in respect to small incremental changes. What seemed to be industry's real benefit, and the purpose behind the proposal, was to minimize the cost of industry operation. All of the other items were a balance, one against the other, but only to small amounts of gain or loss. Tr. 15.

III. Preseason Gear Exclusion

At its March 1999 meeting, the Board amended it regulations that already required participants in king and Tanner crab fisheries to refrain from operating any pot gear during the 14 days immediately prior to the seasons to include trawl gear in the restriction and in the king and C. bairdi Tanner crab fisheries, to extend the preseason exclusion period from 14 to 30 days. The Board took this action to close any loopholes to the "fair start" of the seasons, and to maintain a slower pace in fisheries like the Bristol Bay red king crab fishery, which are otherwise subject to overfishing. The Board's intent was to remove all opportunity for prospecting, and not to just react to accusations of past prospecting.

A. Historical Background

Since 1987, the Board has had regulations that required participants in king crab fisheries to refrain from operating gear in the area in the 14 day period before the season opens. The purpose of this restriction was to prevent the opportunity for prospecting or early fishing by crab fishermen, to slow down the pace of the fisheries and to put all participants on a level playing field at the opening of the season. Originally, the only gear restricted was king and Tanner crab pots. Former 5 AAC 34.050(j). But in the fall of 1989, both NMFS and ADF&G noticed a large increase in the registration for the cod pot fishery in the Bristol Bay area prior to the red king crab fishery. With NMFS' cooperation, an emergency regulation was adopted to exclude pots of any kind during the days leading up to the king crab season. Emergency Regulation 5 AAC 34.050(k) (Eff. 9/15/89 to 1/12/90, Reg. 112). By the following season, the amendment had been made permanent, excluding the operation of any kind of pots to prevent the opportunity for prospecting for crab under the guise of cod fishing with pots. 5 AAC 34.050(j) (Eff. 9/19/90, Reg. 115)

From a historical statewide perspective, the Board has needed to address the reoccurring concern with vessels prospecting for high valued species prior to that species' season opening. The original regulation allowed a preseason bait-up period which is clearly within Category 3, gear placement and removal. Because of dead loss concerns, the BOF stopped allowing preseason bait-up periods.

To assure that no vessels were on the grounds early with baited gear, they implemented tank checks and preseason gear exclusion periods in 1987 to preclude prospecting with commercial, subsistence or personal use crab pots. This was a case where one regulation (pre-season bait up) rolled into the other (gear exclusion /tank checks). It was modified two years later to include all pot gear after a large portion of the crab fleet started fishing P. cod with pots on the red king crab grounds just prior to a crab opener. A further illustration of statewide prospecting concerns was addressed this year (1999) by the Board when it adopted a 30-day preseason restriction period for the red and Tanner crab fisheries in Southeast Alaska. Since groundfish trawling is not allowed in Southeast, trawls were not included in the regulation.

B. Public Testimony and Committee Process

The Board had before it several proposals dealing with the preseason gear exclusion period for the BSAI crab fisheries. Proposal 291 was submitted by the department and would have increased the preseason gear exclusion from 14 days to 30 days for only the Bristol Bay red king crab fishery. Proposal 354 would have included all types of gear, including trawl gear, in the current 14-day exclusion period for all king and Tanner crab fisheries. Proposal 355 sought to include trawl gear in the exclusion, as well as to extend the existing 14-day preseason gear exclusion period to 30 days in all king and Tanner crab fisheries. Proposals 354 and 355 were submitted by Arni Thompson, executive director of Alaska Crab Coalition. According to comments accompanying these two proposals, they were intended to provide a "fair start" to all crab fishermen by requiring a preseason gear exclusion period of 30 days between using sport, subsistence or commercial pot or trawl gear on the commercial crab grounds prior to the commercial crab fishery. RC 1.

These proposals had been submitted to the Board before April 10, 1998, almost a year before its March 1999 meeting in Anchorage. These proposals, along with all other proposals submitted the Board for consideration during its 1998-99 meeting cycle, were published in the Board's annual proposal book and were distributed to the public in July 1998. The proposals were reviewed by user groups and advisory committees, including the Pacific Northwest Crab Industry Advisory Committee (PNIAC), which was established by the FMP to provide nonresidents of Alaska access to the FMP and Board regulatory process. At its meeting in Seattle on January 6, 1999, the PNIAC voted to endorse Proposals 291 and 354, and to postpone comments on Proposal 355 until ADF&G completed its analysis. RC 1, Public Comment 37, page 5.

The Board took staff reports at the beginning of the meeting, took public testimony and then broke into committees to address similar proposals.

Proposal 291 was assigned to Committee E – Bristol Bay King Crab issues. RC 142 is the committee report. Board Committee Members were Don Coffey (Chair), Virgil Umphenour, and Russell Nelson. Staff and industry committee members are listed in RC 142. Other relevant reports or comments to the Board were: Staff Reports, RC 4, Tabs 1, 2, 13, 14, 17, 27, 28, 29; Staff Comments, RC 4, Tab 37, page 19; Advisory Committee Reports, RC 110; Public Comments, RC's 69, 85, 102, 111, and 132.

Proposals 354 and 355 were assigned to Committee D – Bering Sea/Aleutian Islands King Crab issues. RC 135 is the committee report. Board Committee Members were Ed Dersham (Chair) and Dan Coffey. Staff and industry committee members are listed in RC 135. Other relevant reports or comments to the Board were: Staff Reports, RC 4, Tabs 1, 3, 4, 19 (Federal Requirements), 20 (FMP), 27, 30, & 34; Staff Comments, RC 4,Tab 37, page 33; Advisory Committee Reports, RC 110; and Public Comments, RC's 69, 85, 102, 111 and 132.

In committee it was noted that Proposal 355 would include any and all fishing gear in a 30-day pot gear exclusion period prior to any king or Tanner crab fishery. RC 135 at 15. The proposal to extend the preseason restriction period and include trawl gear arose from the concern that trawl equipped crab vessels have an unfair advantage over other crab fishers. *Id.* Public testimony expressed concern that trawls vessels can use pelagic gear in the pollock fishery or bottom gear for cod or flatfish, right up to the registration deadline period for the king crab fishery. *Id.*

Trawl gear is clearly an efficient crab survey method. RC 135 at 15. However, fish ticket data does not show an increase in "average" catch of king crab by trawl vessels compared to similar length non-trawl crab vessels. *Id.* One person testified that pollock trawlers had done about as well as the "crab fleet average". P291 Tr. 7; P355 Tr. 2. He found this surprising since the vessels are mostly operated by trawl fishermen, rather than crab fisherman, stating that this must prove that they were getting an advantage. *Id.*

In committee, the Public Panel Recommendation was a consensus in support of including pot and trawl gear. A consensus was not achieved on the length of the preseason restriction period. Some industry representatives wanted 30 days, some wanted 14 days. RC 135 at 15. Others felt that 30 days was too restrictive and that the change of the red king crab season to October 15 would solve the problem. The Board Committee members supported a 30-day restriction period and inclusion of both pot and trawl gear. Substitute regulatory language was drafted and proposed to the Board. RC 135 at 23. P355 Tr. 7.

C. The Board Properly Considered Applicable Standards of Law During Its Deliberations of the Proposals for Preseason Gear Exclusion

The Board first deliberated on Proposal 291, and using substitute language provided by the committee, amended the department's proposal to include trawl gear in the 30-day preseason gear operation restriction for the Bristol Bay red king crab fishery. The regulation was adopted on a vote of six in favor, zero against, and one absent. The Board later considered Proposal 355 in the context of Tanner crab only, since king crab had been addressed by the adoption of Proposal 291.

1. The Board's Consideration of the Magnuson-Stevens Act National Standards

National Standard 1: The Board addressed the problems of overfishing to achieve optimum yield of the crab stocks. Board member Larry Engel talked about the conservation problems posed by a very short fishing season and people with prior knowledge of the location of crabs, stating that "you could have severe conservation problems" and "very adverse consequences." P355 Tr. 8-9. The gear exclusion period is designed to prevent even the opportunity to prospect. The Board knew that "a trawl is a very effective survey device," noting that the Bering Sea crab survey was performed with a trawl. P291 Tr. 7. Without prior knowledge by fishermen of crab location or abundance, the pace of the fishery can reasonably be expected to be slower than otherwise. The Boards' record is clear that a manageable fishery is important to ensure compliance with National Standard 1 to prevent overfishing and achieve optimum yield.

The Board noted that "fair start" purpose of the regulation was an important equity issue, but that there were also important conservation concerns with prospecting. The utilization of pots, trawls or any other gear to determine the location of crab concentrations in the preseason will only shorten the length of the season for a depressed stock fishery that the Board has been trying to lengthen to ensure conservation management. In fact, it would provide opportunities that are certainly contrary to the Board's attempt to rebuild these stocks and inconsistent with National Standard 1

National Standard 2: The Board's record makes it clear that the Board examined all the data that it had before making this decision. The Board's regulations were aimed at "potential" prospecting. The question was not whether prospecting had occurred, but whether the opportunity is there. Given the limitations of observer coverage in the trawl fishery and the capability of trawlers to catch crab with pelagic gear, there is no support for assertions that trawling does not present an opportunity for prospecting

National Standard 3: There is no question but that the Board manages the king and Tanner crab stocks as a unit throughout their ranges.

National Standard 4: The Board's actions were certainly consistent with National Standard 4. There is absolutely no evidence that the regulations discriminate

between residents of different states. Furthermore, a major purpose of the preseason gear exclusion was to provide a fair start to all participating fishermen. The preseason gear exclusion closes the area for 30 days prior to the fishery start date to pot and trawl operation by those fishermen who wish to fish in the directed crab fishery. The goal was to level the playing field. As Board member Dan Coffey reiterated:

> Looking first to the national standards, I think the – one of the primary considerations here should be in 4 – or section 4, which deals with fair and equitable to all fishermen. I – I think we all know that the – survey that's conducted on Bering Sea king crab is done with a trawl, a trawl is a very effective survey device, mechanism, method and – and therefore we have that and – and so if someone is permitted to trawl in the area, then what I would be concerned about is going fishing the next day, or the next few days or however long it takes for the data, which they were able to trawl up to become outmoded and they would have an unfair and inequitable advantage over those fishermen who are not permitted to trawl in the period prior to the fishery. If you did that, you would allow an individual, corporation or other entity to – to potentially acquire an excessive share of that fishery which is another thing we're supposed to avoid.

P291 Tr. 7-8.

Under the federal groundfish observer program, vessels less than 125 feet only have 30% groundfish observer coverage, and vessels without observers are known to sometimes behave differently than when observers are on board. P355 Tr. 4. Thus, the Board was concerned that 70% of the time, pollock or flatfish trawl vessels less than 125 feet in length are fishing without observers, which provides an opportunity for undetected prospecting. P355 Tr. 4. Data indicated that October observer coverage is low. The opportunity to prospect for crab with trawl gear by a significant portion of the crossover vessels is very real.

The Board's regulations were intended to remove a potentially unfair and inequitable advantage that trawlers have over other crab vessels that do not have gear on the grounds prior to an opening.

National Standard 5: National Standard 5 addresses conservation and management measures promoting efficiency in the utilization of fishery resources without economic allocation as a sole purpose. There was no evidence that the preseason gear exclusion promotes inefficiency in the utilization of the king crab stocks. There was no evidence that allowing trawlers to fish with the opportunity to prospect would promote efficiency in the utilization of crab stocks except as to their efficiency. The Board does not believe that promoting efficiency among a select portion of a user group could have been Congress' goal. As noted above, the Board had very valid concerns for the fairness and equity in the fair start of the fisheries, and was especially concerned about the potential for overfishing in very short seasons. Moreover, there is no indication in the record that the Board's purpose was economic allocation, at all, much less its sole purpose.

National Standard 6: The Board's actions were consistent with National Standard 6, which deals with taking into account and allowing for variations among, and contingencies in, fisheries, fishery resources, and catches.

National Standard 7: National Standard 7 deals with the minimization of costs and avoiding unnecessary duplication. The Board fully understood the costs and benefits of its regulations

National Standard 8: Further review of National Standards by the Board indicated how a fair start does not provide advantage (prospecting) to one area or community over another, and how this is then fair and equitable to all fishermen.

The Board considered whether or not to include the CDQ vessels in the restriction, noting that the Council had many regulations that exempted CDQ vessels. The Board rejected any exemption for the CDQ fleet, stating that a fair start had to be fair to all.

The Board did, however, on reconsideration of Proposal 355, vote to reduce the preseason gear exclusion period for C. opilio Tanner crab from 30 back down to 14 days, based largely on its concern for full participation in this fishery by CDQ groups. Proposal 355 Reconsideration Transcript at 6-7.

National Standard 9: Board member Dan Coffey commented on the bycatch implications presented by the proposals:

> I think that by allowing a fisherman – or the opportunity for this prospecting occurs, we can have a negative effect on the fishery and a negative effect on the resource as well. I think if prospecting occurs, we're going to have a lot of bycatch going on, and I think we're going to have a lot of mortality associated with such bycatch.

P291 Tr. 5; see, also, Board member Umphenour's comments at P291 Tr. At 20. Staff indicated that NMFS observer data of pollock trawl vessels showed a spike of increased king crab bycatch in early October. P291 Tr. 6. In fact, at least since 1993, in years when the red king crab fishery has been open in Area T, the observed bycatch of red king crab has peaked from 4,000 to 7,000 RKC during the October period; an occurrence that doesn't appear in years that the Bristol Bay red crab fishery is closed. *Id.*

National Standard 10: The Board regulations were not inconsistent with the goal of promoting the safety of human life at sea.

2. Consideration of State allocation criteria under AS 16.05.251(e).

Because this proposal has unintended allocation implications, the Board went through its state allocation criteria. Of these state criteria, the Board noted that the availability of alternative fishing opportunities inherently forces fishers to make a fishery participation choice. In fact, in the 1999 opilio fishery, a number of these same vessels chose to forego their A-season Pollock harvest to fish opilio –something they had not done in the past.

3. The Board considered the impact of the regulations on trawl vessels.

Because of the concerns expressed in RC 132, the Board specifically discussed and evaluated each of the concerns laid out by the trawl vessel representative. RC 132 stated that trawlers would lose a portion of their fall groundfish fishery if they chose to go crab fishing. The Board notes that it was only after the 1990 Board action to move the season start date to November 1 that these vessels were able to participate. The pollock fishery consists of an A1, A2, B and C season. These vessels are therefore not excluded from pollock fishing, but must choose whether to participate in the entier pollock B/C season or participate in the Bristol Bay crab fishery. Such choices are common. For example, 16 pollock vessels fished the January 1999 C. opilio season. Five of the vessels first fished pollock and then switched to opilio. But 11 of these vessels forewent their option to fish A-season pollock and chose to fish crab. Further, as the Board understands the discussions under the Council's AFA options, these vessels may form co-ops which could accommodate some seasonal adjustment within co-op fleets (some fish early-some fish late). None of these actions were intended or considered to include or exclude these vessels from participation, only to exclude the opportunity to prospect.

The actions of the Board require that registrants in crab fisheries conform to conservation and management measures necessary to conserve and manage crab stocks. No vessel is excluded, only under certain conditions in a vessel's groundfish endeavors must they elect one fishing opportunity over another. If vessel owners wish to register for BSAI crab fisheries they must prosecute groundfish fisheries in a manner so as to preclude their ability to prospect for crab during the specified fair-start interval. If groundfish fishing occurs outside the crab registration areas, a vessel may still participate in the crab fishery.

There was the statement in RC 132 that prospecting would not occur, mostly because it would use up the prohibited species cap (PSC) limit. However, as the Board understands PSC restrictions, 70% of the fishing time of vessels less than 125 ft. is unobserved for bycatch. Additionally, prospecting for red crab would most likely occur only toward the end of the fall groundfish fishery, and would not tend to shut down the pollock fishery. Data indicated that most of the Bristol Bay red king crab bycatch occurs in the Federal reporting area 509, one of the main commercial crab grounds.

Finally, RC 132 states that the Board does not have legal authority to create a federal fair start that affects the Bering Sea groundfish fisheries. The Board acknowledges that it does not have authority to manage groundfish in federal waters, nor,

by imposing this restriction on the crab fishery, does it intend to. But the Board does have authority to regulate vessels, be they herring vessels, salmon vessels, Dungeness, king, or Tanner crab vessels from anywhere in the state, or groundfish vessels that wish to fish BSAI crab.

The Board's authority to manage crab fisheries in the EEZ arises under the FMP and the Magnuson-Stevens Act and must be consistent and comply with their associated statutory and regulatory requirements to conserve the resource. Compliance with these statutory and regulatory conservation standards does not become unnecessary simply because a conservation measure may have effects on other fisheries, including the groundfish fishery. The groundfish fisheries do not take precedence over the crab fisheries. The Board properly considers such effects on other fisheries, particularly in the context of the National Standards, but concerns about those effects do not trump conservation concerns or other standards the Board must consider. This regulation affects crab fishing vessels and is an extension of other regulations across the state that the Board has adopted or modified to curtail prospecting in state managed crab fisheries. The Board discussed the substantial impacts of their regulations to various users across the state in bringing statewide consistency to regulations.

The following information also supports the Board's decision on this issue. Regarding the imposition of trawl gear restrictions on crab vessels with trawl capacity, Board authority stems from one of the oldest anti-crab prospecting restrictions in our regulations. Regulations 5 AAC 34.625 (c), 5 AAC 34.825(g) and 5AAC 34.925 (j)[1] all restrict vessels engaged in the taking or transporting of king crab from having on board an otter trawl with a head rope or foot rope longer than 60 feet. This regulation was put in place to stop prospecting with trawls during the boom years of king crab fishing. In the boom years, fishermen did not prospect preseason; instead, under the guise of bait fishing during the season, they used large trawls to prospect for high concentrations of crab to set their pots on. The Board restricted these vessels to a small otter trawl suitable for the harvest of bait, but of minimal value for prospecting. This regulation was in place prior to the imposition of the BSAI king and Tanner Crab FMP, was not challenged as provided for under the original FMP, and thus provided notice of the Board's authority to restrict groundfish gear from prospecting under the FMP.

5. Other Considerations

The Board questioned the department as to whether there was good justification to extend the preseason restriction from a 14-day to a 30-day period. Crab managers indicated that there was sufficient information to show that red king crab do not move all that much over a two week period. Industry representatives assured the Board that some of the vessels were in fact exploratory crab fishing under the auspices of cod fishing.

[1] 5 AAC 34.925 has been in place since at least October 1974, Register 51. 5 AAC 34.625 has been in effect since July 1979, Register 70. 5 AAC 34.825 took effect in July 1980, Register 74.

The Department of Law indicated that prospecting was a real enforcement problem. Law noted that prospecting is quite common, and that every year they seem to "find" several vessels, which are prospecting. Obviously, there is great advantage to being able to prospect, otherwise fishermen would not risk prosecution year after year.

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D. Reconsideration by the Board

Because of industry concerns, the Board reconsidered Proposal 355 later during the meeting. The Board was asked to consider whether the 30-day preseason gear exclusion period should be the same for all fisheries. After much debate, the Board adopted the 30-day period for BSAI crab fisheries with small GHLs, and left the opilio fishery with its 14-day period. The opilio fishery has a large GHL, the season lasts for two to three months and thus does not elicit the same degree of fair start concern as fisheries that last a matter of days. But mostly, it was industry's operational concerns, and the CDQ groups who may want an early pre-season opilio harvest (but without exemptions from preseason gear restrictions and wanted uniform application) that felt the opilio preseason gear exclusion could be of shorter duration. The motion on reconsideration passed six in favor, zero against, one absent.

2. The Board complied with applicable FMP requirements and criteria.

The Board has treated the measure it took to restrict participation by those who operate gear in the preseason as an FMP Category 3-Other measure. With Category 3-Other measures, the Board is not limited to only the management measures expressly identified in the FMP, though the board must maintain consistency with the FMP goals and guidelines, National Standards and other applicable Federal law, and the Board must consult with the Council on such measure before implementation. To comply with the requirements of the FMP, the Board consulted with the North Pacific Fisheries Management Council at a joint meeting on July 27, 1999. The meeting took place before the regulation was filed or implemented. The regulation had been held in abeyance by the Department of Law at the Board's direction.

At the joint meeting, the Board listened carefully to comments for the Council and NMFS, explained the reasoning for its action. The Board heard information concerning Council action imposing sideboards on the activities of trawl vessels that cross over and fish the Bristol Bay red king crab fishery, but the Board also heard that those sideboards would not take effect until the 2000 season, at the earliest.

After the joint meeting, the Board scheduled another meeting at which it could vote to continue to keep the regulation on hold or to have it filed and implemented by Law. That meeting took place on August 6, 1999, where the Board voted to lift the hold on the regulation's implementation, but also committed to lift the restriction on trawl gear for the coming season if a federal regulation requires 100% observer coverage during the preseason gear exclusion period, at the suggestion of United Catcher Boats, an

organization largely made up of owners of vessels that participate in the trawl and crab fisheries. The Board also indicated its commitment to review this issue further during its 1999-2000 meeting cycle in coordination and consultation with the NPFMC.

On August 30, 1999, the Board met again and adopted an emergency regulation for the 1999 season to the effect that trawl vessels that had 100% federal observer coverage during the 30-day period prior to the Bristol Bay red king crab season would be allowed to participate in the king crab fishery.

ADOPTED: Oct. 29, 1999
Fairbanks, Alaska

Dan Coffey, Chairman
Alaska Board of Fisheries

VOTE: 6-0-1
one abstention

Alaska Board of Fisheries
Bering Sea/Aleutian Islands Crab Observer Oversight Task Force
99 - 186 - FB

APPOINTMENT
The Alaska Board of Fisheries made initial appointment of the Bering Sea/Aleutian Islands Crab Observer Oversight Task Force at the October 1999 work session. After initial appointment, task force members shall be appointed by the board at the king and Tanner crab meetings currently scheduled for 2002, 2005, 2008, 2011 and beyond.

TERM
Initial term for task force members shall be until 2002. Beginning in 2002, appointments shall be for a term of three years, corresponding to the board crab proposal cycle. Any vacancies will be appointed annually at the March meeting and the term will be for the remainder of the three-year cycle.

NUMBER OF TASK FORCE MEMBERS AND QUORUM
The task force will comprise 15 industry members. A quorum will be eight. The Board of Fisheries will attempt to achieve a broad representation, but specific appointments recognizing residency or size and class of vessels will not be required. If a vacancy occurs, a nomination shall be referred to the BOF for approval.

Understanding that the crab fisheries are conducted in a manner different than many other state managed fisheries, the board shall not consider representatives of stakeholders to be technical advisors, but shall recognize representatives as members of industry.

MEETING STRUCTURE
The task force will operate with a chair and vice-chair to be elected for a three-year term by the committee. Issues will be determined on a voting basis, with vote tallies to be reported to the board.

MEETING FREQUENCY
To be determined by the task force. The task force will coordinate meetings with the Alaska Department of Fish and Game. Attempts will be made to schedule meetings in conjunction with appropriate meetings of the Board of Fisheries and North Pacific Fishery Management Council.

FUNDING FOR TRAVEL
Task force members will be responsible for their own expenses to attend task force meetings.

TASK FORCE AUTHORITY
The task force shall exercise the following duties, authorities and responsibilities placed on it by the Board of Fisheries in regard to all aspects of the development, implementation, and continued operation of the BS/AI crab observer program.

- Report to and be advisory to the board
- Interact with and be advisory to the department

- Review and recommend specific action for all aspects of the BS/AI crab observer program, including:
    a) Funding mechanisms for observer.
    b) Budget and research priorities.
    c) Types of observers to be used in the crab fisheries.
    d) Issues of observer coverage, as well as duties and responsibilities of observers in the various fisheries.
    e) ADF&G suggested program receipt requests.
    f) Other issues that may arise.
- Review and provide recommendations to all appropriate entities regarding the amount and collection of cost recovery fisheries for the observer program in the BS/AI.

ANNUAL REPORTING AND RECOMMENDATION FORMAT

Prior to each March Board of Fisheries meeting, the task force shall receive a complete report from the Department of Fish and Game for the preceding year to include:

- Amount of funds collected in BS/AI crab cost recovery fisheries, along with an itemizing listing of fisheries from which funds were collected. Information shall include the names of vessels involved, pounds harvested, ex-vessel price, and other relevant information.
- A complete and detailed accounting on the use of funds collected in BS/AI recovery fisheries, including amounts utilized for observers, overhead and management, transportation, research, and all other associated costs.
- Complete observer data report for all fisheries with summaries and conclusions included.

Prior to each March Board of Fisheries meeting, the task force shall receive proposals from the Department of Fish and Game for the coming year to include:

- Proposed amount of funds for collection in BS/AI crab cost recovery programs
- Proposed budget for use of funds collected in BS/AI crab cost recovery programs.
- Anticipated levels of observer coverage in each specific fishery, as well as data specific goals for each fishery to be observed in the upcoming season.

Prior to the March Board of Fisheries meeting, the task force will review reports and proposals from the Department of Fish and Game and prepare written recommendations for the Board.

ADOPTED: 10/27, 1999
Fairbanks, Alaska

Dan Coffey, Chairman
Alaska Board of Fisheries

VOTE: 7/0

Alaska Board of Fisheries Findings
State Waters Pacific Cod Management Plans
Adopted October 29 - 31, 1996, at Wasilla

Introduction:

The Alaska Board of Fisheries (board) met at Wasilla (October 29-31, 1996) and approved new management plans for the commercial harvesting of Pacific cod in state waters of the Prince William Sound, Cook Inlet, Kodiak, Chignik, and South Alaska Peninsula Areas. The board's action represented the culmination of a two year public process to advance state involvement in management of groundfish resources in Alaska's territorial waters.

The process included strong support from the Governor's office, a re-programming of state funding to support management activities, and extensive interactions with fishermen, processors, industry representatives and community leaders through the board's local Advisory Committee process. The board, through the Alaska Department of Fish and Game (department) staff, also kept the North Pacific Fisheries Management Council (NPFMC) and National Marine Fisheries Service (NMFS) up to date on the development of state groundfish management plans.

Background:

The board was informed of an April 1995 conference, sponsored by the Peninsula Marketing Association and the Alaska Department of Commerce and Economic Development, to discuss development of a state managed groundfish fishery. A report from this conference was supported by the Governor who in turn requested the department to re-program $200,000 in funding for state groundfish management.

At its October 1995 work session, the board accepted a department agenda change request to consider groundfish management plans during the 1996/97 meeting cycle. In the winter of 1995/96, the board issued a call for proposals for statewide groundfish management plans to be deliberated in October 1996. The NPFMC and NMFS were informed of the board's acceptance of the agenda change request and its subsequent call for proposals early on in the process. In response to the published legal notice, 46 proposals were submitted by the public and the department before the April 10, 1996, deadline.

Prior to the October 1996 meeting, Prince William Sound, Cook Inlet, Kodiak, Chignik, and Alaska Peninsula Advisory Committees, and other groups met to formulate recommendations for state waters groundfish fisheries.

Identification of Issues and Concerns:

At its October 1996 meeting, the board heard reports from the department staff, including Bob Clasby, Director of the

Commercial Fisheries Management and Development Division, who explained that the department was fiscally limited in its ability to manage groundfish. The board was informed that insufficient funds were available to conduct independent stock assessment. The department also reported that funding was not available to monitor groundfish fisheries with inherent high bycatch rates, such as trawl or longline gear fisheries. Based on this information, the board found that state water groundfish management plans must operate within the conservation parameters established by federal managers and that allowable gear must have low bycatch rates.

Department staff also provided reviews of the various fisheries, from Prince William Sound westward to the Aleutians. The board also reviewed a letter submitted by NMFS Region Director, Steve Pennoyer, which encouraged a strong partnership between state and federal management. The Pennoyer letter urged the board to consider the need to maintain historic harvest statistics based on federal boundaries when establishing new state management areas. Staffs from NMFS and the NPFMC also made presentations to the board.

The board was advised by the Alaska Department of Law that under the Magnuson-Stevens Act, it should not take actions that would have substantial and adverse impacts on federal management or they could run the risk of preemption.

The board discovered that with the advent of federal IFQ and vessel limitation programs, in the absence of similar state waters effort limitation programs, the department was obligated to either close state waters to all fishers or let all fishers participate in state water fisheries. The board believed these considerations, mandated involvement in management of groundfish fisheries conducted in state waters.

The board heard of the impact of federal IFQs, Community Development Quotas (CDQ), and inshore/offshore allocation programs on state fisheries. The board found that current council management had not addressed the needs of small vessel groundfish fishermen. The board also found that the winter season, specified in the NPFMC management plans, made it difficult for small vessels to fully participate in the fishery.

The board received information on the history of state involvement in the management of groundfish resources. The board learned that the department tailored groundfish, and specifically Pacific cod, management actions in state waters to be consistent with the management actions implemented by federal managers in the adjoining waters of the Exclusive Economic Zone (EEZ). In general, state waters were opened and closed concurrently with the adjacent federal management areas.

The board was informed that the harvest of Pacific cod from state waters has gradually increased in recent years. From 1994-1996, the take in the state water portions of the federal Central and

Western Gulf of Alaska Areas averaged approximately 22.6% of the total harvest. The board discovered that the implementation of federal Individual Fishery Quota (IFQ) and license limitation programs were changing the structure of Alaskan groundfish fisheries and making it difficult for many local fishermen to participate in groundfish harvest.

Given this information, the board decided that it would be appropriate to first develop factors to consider when developing state water groundfish management plans. The board discussed the following factors:

1. Minimize bycatch to the maximum extent practicable.
2. Consider protection of habitat from fishing practices.
3. Slow harvest rates to ensure adequate reporting and analysis for necessary season closures.
4. Utilize such gear restrictions as necessary to create a year round harvest for maximum benefit to local communities, the region and the State.
5. Harvest the resource to maximize quality and value of product.
6. Harvest the resource with consideration of ecosystem interactions.
7. Harvest to be based on the total catch of the stock that is consistent with the principles of sustained yield.
8. Prevent localized depletion of stocks to avoid sport, subsistence and personal use conflicts.
9. Management based upon the best available information presented to the board.
10. Management consistent with conservation and sustained yield of healthy groundfish resources and of other associated fish and shellfish species.
11. State fishery management plans adopted by the Board should not substantially and adversely affect federal fishery management plans adopted by the NPFMC.

At a later meeting, the board adopted a set of guiding principles to consider when developing groundfish management plans.

Board Actions and Deliberations:

Prior to deliberating on the 46 proposals, the board reviewed comprehensive staff reports on Alaska groundfish fisheries. In addition, the board reviewed extensive written public comments and heard oral public comments from 30 individuals and eight advisory committees.

The board found it necessary to limit the scope of the new state management plans to Pacific cod to ensure management obligations were consistent with current department funding.

The board specified that state waters should continue to be open concurrent with the federal season. This represents a continuation of the state's recent management practice of tailoring state water groundfish seasons to coincide with the

seasons in the adjoining EEZ waters. The methods and means regulations for participation in the federally authorized season were not significantly modified. In addition, the board established separate state water Pacific cod fishing seasons to be open following closures of federally authorized seasons.

The board linked guideline harvest levels for the state authorized seasons to a percentage of the total catch of Pacific cod authorized by the NPFMC. The board recognized that the total catch authorized by NPFMC is based on stock assessment surveys and is consistent with principles of sustained yield management. The guideline harvest level for the Prince William Sound Area is set at 25% of the total catch authorized by the NPFMC for the Eastern Gulf of Alaska Area. The state authorized season guideline harvest level is initially set at 15% of the Central and Western Gulf of Alaska catch and apportioned between the Cook Inlet, Kodiak, Chignik, and South Peninsula Areas. Once these fisheries have shown an ability to fully utilize the area's guideline harvest level, the guideline harvest level will be increased to 20%, and similarly, when that level is reached, it will be increased again to a maximum of 25%.

The board recognized that the state authorized season would result in transfer of catch from federal waters to state waters. The board believes the graduated guideline harvest level approach allows for an incremental and gradual shift in the harvest so as to minimize the impact on existing fishing patterns. The board expected the initial 15% guideline harvest level to result in an actual modest increase in the state water take of Pacific cod of approximately 6 - 8 percent over recent year levels. At a 20% state season guideline harvest level, the board anticipated an actual 10 - 12 percent increase in harvest from state waters; at a 25% state season guideline harvest level, the board anticipated a 14 - 16 percent increase in actual harvest from state waters. The board reasoned that the federal season will tend to become shorter, corresponding to less Pacific cod being harvested. The shorter season will lead to a decrease in the proportional share of harvest being taken in state waters during the federal season, because the more efficient trawl and longline gear types generally operate in federal waters.

The board elected to utilize existing salmon management areas in order to provide functional jurisdictional areas for groundfish management plans that are familiar to the local fleets. These areas include; Prince William Sound, Cook Inlet, Kodiak, Chignik and Alaska Peninsula Areas. Public testimony supported utilizing existing salmon management area boundaries. Department comments also supported this approach, because it would be functionally consistent with current staffing and organizational structures. The board, however, recognized the need of federal managers to have the ability to apportion catch from state waters to appropriate federal catch reporting areas. The board received information from the department indicating that, even though different management areas were established, the existing

configuration of state water statistical catch reporting areas would enable catch reporting by federal reporting areas.

The board found it necessary to approve registration and gear limitations to reduce harvest rates and to ensure management consistent with available funding. The board chose to make the Prince William Sound, Cook Inlet, Kodiak, Chignik, and South Alaska Peninsula Areas exclusive registration areas. This action was also selected to provide benefits to local economies that are based largely on small boat fishing.

The board was compelled to further reduce the catch rate by limiting the gear in state managed fisheries to mechanical jigging machines, pots and hand troll gear. These gear types were also selected because of the inherent minimal bycatch and mortality of non target species associated with their use.

The board also limited the number of pots that may be fished to 60 per vessel and the number of mechanical jigging machines to 5 per vessel. To assist in the enforcement of pot limits, the board found it necessary to require each pot to be marked with an identification tag. The board did not limit the units of hand troll gear that may be fished per vessel, because hand troll gear is a very inefficient type of fishing gear.

The board also found it necessary to limit the size of participating vessels in some areas to further reduce catch rates, provide for extended seasons, and provide economic benefits to the regions in which the fishing is conducted. In the Kodiak Area, the board found it necessary to impose a 25,000 pound landing limit, per week, for catcher/processor vessels to reduce Pacific cod catch rates and to improve inseason catch reporting capabilities.

The board recognized that the approved registration and gear requirements may limit the ability of the existing fleets to fully utilize the established guideline harvest levels. To alleviate this potential problem, the board authorized inseason management authority for the department to rescind gear restrictions, vessel size limits, and exclusive registration requirements, in that order, if it became necessary to foster full utilization of established guideline harvest levels.

The board found that since the approved plan operated within the Total Allowable Catch (TAC) and Acceptable Biological Catch (ABC) levels established by the NPFMC, the plan was consistent with the state's, NMFS's and NPFMC's sustained yield mandate. The board's approved management plan contained provisions for a slow paced fishery, allowing the department to ensure catches do not exceed the harvest levels set by the board, as well as keeping the harvest at or below the ABC set by the NPFMC. Further the plan did not place a fiscal burden upon the department to conduct stock assessment programs outside of its fiscal means.

At the meeting in October 1996, members of the board repeatedly asked representatives from NMFS whether or not the proposed state groundfish plan would substantially and adversely affect the federal management plan. The board, in response to those direct and pointed inquiries, was consistently and repeatedly informed that the state's proposed groundfish plan would not substantially and adversely affect federal inseason management. These responses led the board to conclude that the state proposed plan would conform to the federal management plan.

At Sitka, Alaska

Date: January 29, 1996

Approved: (7/0/0/0) (Yes/No/Absent/Abstain)

Larry Engel, Chair
Alaska Board of Fisheries

92-137-FB

Alaska Board of Fisheries
Bering Sea/Aleutian Islands
Crab Fisheries Pot Limits Finding

The Alaska Board of Fisheries (Board) met March 3-5, 1992 in Anchorage at the Anchorage Hilton Hotel to discuss gear limitations for Bering Sea/Aleutian Islands (BS/AI) king and Tanner crab fisheries. The Board had generated an agenda change request on March 20, 1991 to hear this issue out of cycle, in response to a request submitted by the industry. This request was supported with preliminary Alaska Department of Fish and Game (ADF&G) data which indicated that the levels of gear deployed in these fisheries were creating conservation and management difficulties.

The March 1992 public meeting was publicly noticed consistent with Alaska Administrative Procedures Act and well attended by members of the industry and other concerned parties (Fishery Management Plan for the king and Tanner crab fisheries in the Bering/Aleutian Islands (FMP) Sec. 7.2.6., 9.2). In addition, representatives from the National Marine Fisheries Service (NMFS), the North Pacific Fishery Management Council (NPFMC), State of Alaska Attorney General's Office (AG), the ADF&G and Fish and Wildlife Protection were in attendance. The AG representative maintained communications with NOAA General Counsel during the proceedings.

The Board considered the following reports and presentations prior to their deliberations.

1. Bering Sea/Aleutian Islands (BS/AI) Shellfish Fisheries and Gear Utilization (Ken Griffin, ADF&G).

2. Norton Sound Harvest Evaluation
(Charles Lean and Fred Bue, ADF&G).

3. Review of Existing Regulations, Gear Loss and Pot Usage in BS/AI (William Nippes, ADF&G).

4. Economic Impacts of Alternative Pot Limits to Bristol Bay Red King Crab and Bering Sea C. opilio Fishermen, Executive Summary (27 pp) and draft document (115 pp.)
(Dr. Joshua Greenberg, University of Alaska-Fairbanks
Dr. Mark Herrmann, University of Alaska-Fairbanks
Dr. Paul J. Hooker, ADF&G/NOAA).

5. Report illustrating the State/Federal responsibilities frameworked in the FMP, and evaluation of the Crab Fisheries by Type-Indicating Options for Management Within the FMP process (Dr. Ray Baglin, NMFS and Earl Krygier, ADF&G).

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6. Overview of FMP Criteria and Magnuson Act (Bonnie Harris, Alaska Attorney General Office).

7. Enforcement Considerations and Options for Crab Pot Sticker Identification (Captain Phil Gilson, Division of Fish and Wildlife Protection).

The Board considered public testimony from over 30 individuals, industry representatives and organizations, plus Advisory Committees, representatives from the Pacific Northwest crab industry, Dutch Harbor, and Kodiak.

Public input was also incorporated into the Board's decision by the formation of a ten member committee whose composition represented large and small vessel owners and operators, processors and catcher processors. Members were: Kevin Koldestad, Phil Chitwood, Dick Powell, Chris Fanning, Louie Lowenberg, Earling Skar, Jerry Nelson, Bart Eaton, Larry Hendricks, Peter Liske, and Jack Hill. As the Board weighed alternatives for management, this industry group was able to comment and respond. It is noteworthy that the Board took no action on issues/fisheries that were substantially advised against by this group.

During public testimony, many people expressed concern that the imposition of pot limits in these fisheries, in the absence of a vessel limitation, would be an exercise of questionable value. The Board acknowledged their concern. However, they clarified to the public that under the FMP (8.1), a moratorium decision is solely the authority of the NPFMC. The State can not limit entry into the fisheries of the EEZ. The BOF informed the public that, considering the magnitude of the problem at hand, and the fact that the NPFMC's moratorium may not provide a solution, the BOF would address this conservation issue within the regulatory avenues available to them.

Board scheduling was also an issue which emerged during public testimony. It is understood that BS/AI crab fisheries will be before the Board in their entirety February of 1993 (FMP 7.2.6). With this in mind, the Board had the option to defer any action until that time, or could choose to implement some program of gear restrictions for the 1992/1993 season and look to refining or redesigning it, if necessary, in 1993.

Under status quo, goals and objectives of the FMP are not being met or are in jeopardy, therefore the current conduct of the fishery is inconsistent with these goals and the National Standards of the Magnuson Act (FMP Chapter 7 and Appendix B). The Board found the following facts identified in staff reports and through public

testimony to be specific issues of concern:

1. The Bristol Bay king crab fishery was identified as a high value, high effort fishery in which increases in the number of vessels and pots, combined with moderate Guideline Harvest Levels (GHLs), have led to derby-style fishing with increasingly shorter seasons which are increasingly more difficult to manage in-season.

   This fishery is being conducted on a rebuilding stock which dictates conservative management. Since the 1983 closure of the Bristol Bay red king crab fishery due to depressed stocks, the fishery has started a slow recovery and is the only Bering Sea red king crab fishery to re-open after a closure.

   In the Bristol Bay red king crab fishery, the following historic performance data indicate the trend of the fishery to increased effort since reopening in 1984:

	1984	1991
Season Length	15 days	7 days
Number of Vessels	89 vessels	302 vessels
Harvest in millions/lbs	4.1 mil/lbs	17.1 mil/lbs
Number of Pots	21,762 pots	89,068 pots
Number of Pot Lifts	112,556	227,555

   Although the presence of observers on catcher-processor vessels has allowed better estimates of in-season harvest, effort relative to GHL continues to increase at a rate which jeopardizes the ability of management to prevent overfishing. In 1991, the catching ability of the fleet was <u>estimated</u> at over 2 million lbs/day. <u>Actual</u> harvest indicated a rate in excess of 2.4 million lbs/day.

   Extending season lengths in the future was identified to the Board as an important management objective with respect to this fishery. The ADF&G staff indicated to the Board that an optimal season length would be at least two weeks in length. This would allow for in-season adjustments to GHL to reflect CPUE information which can validate or invalidate preseason stock estimates. Seasons shorter than two weeks increase the probability of over or under harvesting the resource.

2. The Norton Sound red king crab, Pribilof Islands red and blue king crab, and St. Matthew blue king crab were all identified to the Board as fisheries that would not likely occur, despite the presence of a harvestable surplus, due to the currently

uncontrolled fishing capacity. The potential level of effort was so high in relation to GHL, that the ability to manage these fisheries and prevent overfishing had been lost.

3. Fast moving ice conditions in C. opilio fisheries have been causing excessive pot loss which results in intolerable levels of increased crab mortality and habitat degradation.

The Board heard repeated public testimony that the department estimate of 100,000 pots on the Bering Sea grounds in 1991 was low and that actual pots on the grounds likely numbered in excess of 120,000.

Industry non-compliance with minimum cotton twine size in the biodegradable escape panel was reported to be widespread by both Fish and Wildlife Protection and industry; this exacerbates mortality associated with lost pots.

Testimony from fisherman, confirmed with survey information, indicated crab are not evenly distributed over the fishing grounds; rather they are found in concentrated amounts in discrete areas. Thus, once crab locations are determined, intensive gear deployment occurs in those areas. Sheer numbers of pots on the grounds have exacerbated gear conflicts, increasing gear loss and creating conflicts over grounds pre-emption. Density of buoys and floating lines creates a hazard to navigation to the conscientious vessel operator. The Board heard repeated testimony that gear is so dense that it is difficult to operate vessels in a manner that will not run over gear and cause increased pot losses. Lost pots continue to capture and kill crabs. Such fisheries can no longer be identified as orderly.

Additionally, lost pots conflict with activities of bottom trawl fishermen, thereby increasing the trawlers costs of operation and decreasing their fishing efficiency.

Public testimony indicated that historically, fishery execution relied on a combination of luck, skill, and experience in finding crab and keeping gear on them. This style of fishing has been replaced by a new style of fishing in which large areas are saturated with gear. The Board heard testimony to the effect that large numbers of pots are being abandoned or not maintained by vessel operators, a condition not previously seen in the fishery.

Only three individuals testified during public testimony against adopting gear restrictions in the form of pot limits. Every other vessel owner, operator, processor and catcher processor present and testifying, supported some concept of pot limits. Support for pot limits was qualified by whether or not an enforceable program could

be implemented, and most fishermen wanted an avenue whereby lost pots could be replaced.

The Board began deliberations with these identified concerns in mind. The industry committee was appointed and the Board reviewed the following management options with their input. In part, the board considered the following:

1. Close fisheries where status quo did not allow prevention of over fishing. This option was rejected. Industry and Board would rather see change to allow utilization of harvestable surplus.

2. Change dates of fisheries to force redistribution of effort. Rejected as a management option available at this meeting since public notice spoke specifically to pot limitations. Identified as a management option to be considered in February 1993.

3. Imposition of trip limits. This option was rejected. Opposed by segments of industry as counter-productive to free market and competition in fisheries. Identified as an option for future consideration, especially if tied to vessel length.

4. Exclusive or super-exclusive registration areas. Identified as an option for action at this meeting, but did not receive much industry support. Board expressed concern that the written findings, including an economic analysis, required in FMP 8.2.8 would be difficult to generate within time constraints of the meeting. Rejected as option for this meeting.

5. Determine GHL for fishery, require vessels to pre-register; divide GHL among participants evenly or use a sliding scale. A variation of #3 above, this was also rejected for lack of industry support.

6. Proportional pot limits based on vessel length. The Board engaged in an extensive discussion of this topic. The impacts of a fixed versus a proportional limit were weighed in terms of enforceability, discrimination between vessel classes, and achievement of FMP objectives. The Board rejected this option and specifically discussed:

   A. The Board found that the pot limits which require buoy stickers and affidavits signed by the crew and skipper for replacement of lost pots (stickers), were enforceable. They noted that a fixed limit would be more easily enforced, since all participants would have the same

number. Beyond that, the Board found that proportional limits presented no distinct enforcement difficulties different from those which might be encountered in a straight fixed pot limit program.

B. Proportional limits might achieve FMP objectives as well as fixed limits, but several Board members felt the 4th standard of the Magnuson Act could be violated by imposition of proportional limits. They felt that proportional limits could be discriminatory in assigning varying levels of fishing capacity to individual vessels. On the other hand, fixed pot limits provided equal opportunity for all fishermen; treating the crab fleet as a whole and providing equal access to the fishery, and the harvest, for all vessels equally.

C. The Board found that a pot limit based on vessel size would not be less discriminatory than a fixed pot limit for all participants for the following reasons:

i. Larger vessels will still maintain a competitive advantage under a fixed pot limit; since they carry more pots. For example, some vessels can carry a full compliment of 250 pots safely in all weather conditions. They are advantaged over a smaller vessel which must make multiple trips to move the same number of pots. This, combined with their greater speed and larger crews, allows them to deploy their gear over productive fishing grounds more effectively.

ii. ADF&G information indicated that the numbers of pots fished by vessels greater than 90 ft., which most full-time crabbers have, do not track robustly with vessel length. (see attached Fig. 4)

iii. Presently, small and medium size vessels utilize wet storage areas to allow them to deploy a large number of pots if they choose to fish in this manner.

iv. Presently, vessels are provided very liberal hours to deliver their catch to port after a season closure. This allows small and mid-sized vessels to remain competitive by fishing large numbers of pots despite weather variables.

v. Some large vessels are able to fish smaller numbers of pots competitively due to skill and experience of operators.

vi. Data presented in the Economic Impacts Study Draft document, for years 1986-1990, forecast that fixed pot limits may pose some disproportional impacts to the largest vessels, but that vessels in every size category are impacted. But in contrast to the forecast model, experience with the Kodiak Tanner crab pot limit indicates that under a fixed pot limit larger vessels maintain their competitive advantage over smaller vessels.

vii. Public testimony indicated that a minimum pot soak time of 18 - 24 hours was required to reach acceptable harvest levels. Since even the largest vessels do not normally turn over 250 pots within a 24 hour period, no vessel would be restricted to unacceptable soak times while constantly working their gear. Since this is not optimal soak time, two outcomes occur: 1) in the red king crab fishery it is anticipated that vessels would move to optimize their soaks and thus extend the fishery; 2) in the C. opilio fishery, turning gear at a normal rate, CPUE would drop to a level which would facilitate sorting and releasing live sublegal C. bairdi crab.

7. At this point, the Board determined fixed pot limits would be the preferred management alternative to discuss with industry. The Board then focused its discussion on determining the appropriate number of pots to apply to the Bristol Bay red king crab fishery.

   For discussion purposes, after input from the industry committee, the Board adopted 250 pots per vessel as a reasonable number to focus on.

   The Board engaged in a lengthy discussion of enforcement issues and found the following:

   A. An important benefit of imposing any fixed pot limit would be to generate accurate numbers of how many pots are actually being fished and how many pots are actually being lost. Industry saw that attainment of real numbers would greatly improve ADF&G's ability to determine the catch per unit effort.

   B. A sticker program enforceable from the surface of the water could be implemented consistent with existing state regulations.

C. Replacement of lost pots could be provided for in the 1992/1993 fishery.

D. Division of Fish and Wildlife Protection may experience difficulty proving cases if replacement pots are allowed. The Board considered non-replacement of lost pots and double sticker requirements. However, the Board found that hardship to industry by not providing some replacement program would be unnecessarily burdensome, especially in light of a first year program of gear limitation. Special conditions regarding replacement were included to accommodate the concerns of Fish and Wildlife Protection. The Board, at the recommendation of Fish and Wildlife Protection, rejected the double sticker standard.

E. Board discussed the manner in which it could provide for pots fishing cod for bait. There may be future need for coordinated regulation or cod pot definition between NPFMC and the Board.

In their final summations, Board members found that establishment of 250 fixed pot limit for the Bristol Bay red king crab fishery would be desirable for several reasons. In addition, this management option would be consistent with Magnuson Act standards and would achieve objective of FMP in the following ways:

1. Pot limits would likely lengthen season and would provide for greater management precision and prevent over harvest of stocks.

2. Pot limits would decrease crab mortality by increasing incentive to retrieve lost gear.

3. Pot limits would allow for greater level of maintenance of gear in terms of better quality lines and buoys, thereby decreasing pot loss.

4. Pot limits will result in greater ability to maintain biodegradable twine, thereby decreasing crab mortality due to ghost fishing of lost pots.

5. Pot limits encourage vessel operators to fish more efficiently thus decreasing capitalization costs relative to value of harvested species.

6. Pot limits will minimize gear conflict within and between fisheries.

7. Pot limit of 250 is an appropriate level which will not result in a significant increase in mortality due to handling relative to increased pot limits, when weighed against the savings in crab mortality presently incurred by the lost pot problem.

8. Pot limit of 250 is the mid-point of the range of values considered in the economic study, and is close to the 275 pots per vessel average currently being fished.

9. With the exception of a representative of the catcher processor fleet, the industry committee indicated they could "live with" a 250 pot limit.

10. Pot limits with the pot sticker requirements and with the special replacement conditions can be enforceable, but it may take time to work out ideal implementation.

11. Pot limit of 250 would not unduly discriminate against any component of the fleet and should not result in a reallocation of harvest between historic components of fishery to a significant degree.

12. Pot limit of 250 for Bristol Bay red king crab will result in a more orderly fishery.

With respect to C. bairdi, the Board discussed whether similar concerns existed in that fishery which were identified in the red king crab fishery. Hearing that this was indeed the case, and with concurrence of the industry committee, the Board extended the 250 pot limit to the Bering Sea C. bairdi Tanner crab fishery as well. Similar administrative procedures for the stickers and replacement were also approved.

Moving to the Bering Sea C. opilio fishery, the Board found the following identified concerns.

1. The fishery is distinguished by fast moving ice conditions which are causing, in some years, intolerably high levels of pot loss which degrade habitat and increase crab mortality and gear conflicts (pot and trawl fisheries).

2. If pot limits are implemented, they would cause greater vigilance in gear placement and would decrease the number of pots being lost.

92-137-FB

3. Pot replacement should be provided for under special conditions to accommodate Fish and Wildlife Protection's concerns.

The Board found that benefits of this limit are similar to those of the Bristol Bay red king crab fishery but recognized increasing season length as not the compelling reason necessary in this fishery at this time. The Board also found that benefits outweigh projected hardship to industry. However, if during their review at the 1993 Board meeting they find Board objectives are not met under this regime, the Board can take corrective measures based on information available and industry recommendations.

After lengthy discussion with the industry committee and among itself, the Board chose to apply the 250 pot limit to the Bering Sea C. opilio fishery, for the 1992-1993 season.

The Board considered the Norton Sound red king crab, Pribilof blue king crab, and St. Matthew blue king crab fisheries and established a 100 pot limit for each, based upon the following reasons:

1. Industry support for fixed limit, over any other option reviewed during the red king crab fishery discussion.

2. Department recommended a 50 pot limit, but the Board liberalized this to decrease possible handling mortality which would occur through increased pot lifts.

3. Those fisheries would have remained closed, or have been closed, if a pot limit was not instituted.

In 1993, the Board may revise this level downward or consider other options if overfishing occurs in 1992/1993.

Regulations for the remaining Bering Sea/Aleutian Island crab fisheries (Dutch Harbor and Adak) remained status quo, as the Board found no pressing concerns requiring regulatory change for those fisheries at this time.

Michael R. Martin

Vote: 7 yes

Mike Martin, Chair
Alaska Board of Fisheries

Adopted: October 25, 1992 at Soldotna, AK

Attachments:

A:\LIMIT2.CRB [10/25/92 @ 1:53pm]

POLICY ON KING AND TANNER CRAB RESOURCE MANAGEMENT

GOAL AND BENEFITS

It is the goal of the Alaska Board of Fisheries and the Alaska Department of Fish and Game to manage king and Tanner crab stocks in a manner that will protect, maintain, improve, and extend these resources for the greatest overall benefit to Alaska and the nation. Achievement of this goal is necessarily constrained by the requirement to minimize: (1) risks of irreversible adverse effects on reproductive potential; (2) harvest during biologically sensitive periods of the life cycle; (3) adverse fishery impacts on non-targeted portions of stocks; and (4) adverse interactions with other fish and shellfish stocks and fisheries.

Management of these fisheries for the purpose of achieving this goal will result in a variety of benefits which include, but are not limited to, the following:

(1) maintaining healthy stocks of king and Tanner crabs of sufficient abundance to insure their continued reproductive viability and the maintenance of their role in the ecosystem;

(2) providing a sustained and reliable supply of high quality product to the industry and consumers which will provide substantial and stable employment in all sectors of the economy relating to these fisheries; and

(3) providing opportunities for subsistence and personal use fisheries on these stocks.

The Alaska Board of Fisheries also recognizes the benefits of managing for the highest socio-economic benefit when such action does not conflict with the previously mentioned biological constraints.

POLICIES

To achieve the management goal and provide the benefits available from these resources, it is necessary to set policies which will protect stocks and provide for optimum utilization of these resources. It is the policy of the Alaska Board of Fisheries to:

1. Maintain crab stocks comprised of various size and age classes of mature animals in order to maintain the longterm reproductive viability of the stock and reduce industrial dependency on annual recruitment, which is extremely variable. Benefits of this policy are most apparent when weak recruitment occurs. As population abundance and structure change with declining recruitment, harvests should be reduced.

2. Routinely monitor crab resources to provide information on abundance of females as well as prerecruit, recruit, and postrecruit males. This is necessary to detect changes in the population which may require adjustments in management to prevent irreversible damage to the reproductive potential of each stock and to better achieve the benefits listed above. Harvests must be conducted in a conservative manner in the absence of adequate information on stocks.

3. Protect king and Tanner crab stocks during biologically sensitive periods of their life cycle.

Closure of the fishing season is necessary at times surrounding the annual mating, molting, and egg hatching periods in order to reduce unnecessary mortality of soft animals, disturbance during mating, and damage to egg clutches.

4. Minimize handling and unnecessary mortality of non-legal crabs and other non-target animals. Capture and handling of females, sublegal males, and animals of other species results in a loss of reproductive ability and biomass that may be detrimental to a stock.

5. Maintain an adequate brood stock to rebuild king or Tanner crab populations when they are depressed. Maintenance of an adequate brood stock takes precedence over short term economic considerations. When populations are at or below threshold, the minimum stock size that allows sufficient recruitment so that the stock can rebuild itself, fisheries must be closed and must remain closed until there is adequate brood stock.

6. Establish management measures in each fishing area based on the best available information. Stock and fishery characteristics, as well as available data, vary from area to area within Alaska. Actual management practices in each area will vary accordingly.

7. Establish regulations which will help improve the socio-economic aspects of management by: harvesting crab when their meat yield is highest; providing for fair starts and closures to seasons; insuring enforceability of regulations; and other measures providing for an orderly fishery.

The Board recognizes these policies may not result in maximization of physical or economic yield. They will, however, provide better biological protection and help preserve the reproductive viability of king and Tanner crab stocks which inherently vary in abundance due to environmental conditions. It will also increase the stability and longevity of the king and Tanner crab fisheries beyond that provided by a recruits-only fishery.

MANAGEMENT MEASURES

The following management measures are available as tools to be used in order to carry out the policies on king and Tanner crab management. Individual measures should be applied as necessary in areas and fisheries depending on available information and fishery characteristics.

1. **Harvest Rates.** Harvestable surpluses available from king and Tanner crab stocks depend on the size and condition of the individual stock. Harvest rates represent the percentage of the legal stock that may be harvested during the biological season in accordance with the goal and policies of the Board.

Exact harvest rates in each situation are chosen based on abundance of prerecruit males and females as well as legal males, the established minimum size or the actual size of crab landed, percentage of females bearing eggs, and the ratio of recruit to postrecruit males. When the acceptable annual harvest rate has been reached in an area, that area must be closed to fishing. Changes in harvest rates should appear in fishery management plans to be reviewed by the public and the Board.

When stock abundance and condition in a management area are such that there is no harvestable surplus, the area or a portion of the area must be closed to fishing. Such areas must remain closed to fishing until the stock recovers to a level WHICH IS EXPECTED TO PRODUCE A SUSTAINED HARVESTABLE SURPLUS.

2. **Size Limits.** Size limits have a dual role in management. They provide some protection against over harvest and also provide for improved product quality. To provide for protection

against over harvest on stocks where harvest rates are unknown or difficult to regulate, size limits are set to increase the probability of mating prior to harvest. For example, in some cases king crab size limits have been set at two average molt increments above the estimated average size at maturity and Tanner crab size limits have been set at one average molt increment above estimated average size at maturity because Tanner crab are known to produce multiple egg clutches from a single mating.

Smaller size limits may be established where stock size is accurately known and harvest rates are precisely controlled since harvest rates will have to be lowered to prevent over fishing.

Larger size limits may be established to insure better marketability of the crab or provide increased long term yield by limiting harvest of animals below a suboptimal size.

3. **Sex Restrictions.** Harvest of king and Tanner crabs is limited to males only in an attempt to provide full fertilization of females and increase the chances of reproductive success. This is particularly important at low stock levels. During periods of average or high abundance, in areas where stock size is accurately known and harvest rates are precisely controlled, this restriction may be eliminated if it is demonstrated that the abundance of females results in no increase in recruitment to the fishery.

4. **Fishing Seasons.** Biological seasons should be set to minimize the harvest of king and Tanner crabs during times surrounding the annual mating, molting, and egg hatching periods and for a sufficient time after molting to allow safe handling and acceptable product quality. Within the acceptable biological fishing season, actual fishing times may be further modified for economic reasons, such as to ensure high meat content of legal males and to reduce dead loss in the landings.

5. **Guideline Harvest Levels (GHL).** A preseason estimate of the level of allowable king and Tanner crab harvest is established for each fishery. In those fisheries with accurate population estimates the appropriate harvest rate is applied to the best point estimate to determine the GHL. For those fisheries without surveys or historical catch information adequate for estimating the population size, the GHL will be set based on historical fishery performance, catch, and population trend.

6. **Closed Areas.** To minimize the handling and unnecessary mortality of non-legal and/or molting crabs, or to prevent conflicts with other fisheries or stocks, it may be necessary to close portions of management areas.

7. **Gear Types.** Fishing for king and Tanner crabs is limited to pots, ring nets, or diving gear depending on area. This type of gear provides the most manageable type of fishery while minimizing potential damage to target and non-target portions of the stock or other species. Biodegradable panels are required in pots to minimize adverse effects of lost gear. Escape rings, large mesh panels, or other measures may be required in gear to meet the policies of the Board.

8. **Inseason Adjustments.** Inseason adjustments may be made to the guideline harvest level and length of the fishing season. Information upon which such adjustments are based may include: (1) overall fishing effort: (2) catch per unit of effort and rate of harvest; (3) relative abundance of king or Tanner crabs; (4) achievement of guideline harvest level (GHL); (5) proportion of soft-shelled crabs and rate of dead loss; (6) general information on stock condition including adequacy of reproductive stock; (7) timeliness and accuracy of catch reporting; (8) adequacy of subsistence harvests, (9) THE IMPACT OF SEVERE OR UNEXPECTED ENVIRONMENTAL CONDITIONS ON THE HANDLING AND TRAPPING MORTALITY OF CRAB, AND (10) other factors that affect ability to meet objectives of the policy. When this information shows that continued fishing effort would jeopardize the reproductive viability of king or Tanner crab stocks within a registration area, or continued fishing would be counter to the goal and policies established by the Board, the registration area or a portion of the registration area will be closed by Emergency Order.

9. **Other Measures.** To meet the goal and policies for management of these fisheries, it may be necessary for the Board to adopt additional regulations OR MANAGEMENT MEASURES. CONTROLLING DISEASE, REDUCING HANDLING AND TRAPPING MORTALITY DURING SEVERE OR UNEXPECTED ENVIRONMENTAL CONDITIONS, SPECIFYING registration requirements, tank inspections, gear storage, gear limitations, and other measures including regulation of other shellfish and finfish fisheries may be necessary in order to promote the protection and best overall usage of the king and Tanner crab resource toward the stated goal.

(#90-04-FB, March 23, 1990)

Adopted: March 23, 1990
Anchorage, Alaska

Vote: 7/0

B. Hodson

Bud Hodson, Chairman
Alaska Board of Fisheries

Findings of the Alaska Board of Game
2011-184-BOG

Game Management Unit 13
Caribou and Moose Subsistence Uses

These findings supplement 2006-170-BOG as to uses of Nelchina caribou and Unit 13 moose. In the 2006 finding, the Board indentified the specific pattern of subsistence uses upon which the positive customary and traditional use finding for Nelchina caribou and Unit 13 moose, set forth in 5 AAC 99.025, were based. This pattern of uses originated within the communities of the indigenous Ahtna Athabascan inhabitants of the Copper River Basin. Among other things, the findings emphasized the "community-based" nature of this traditional pattern of use. As described in those findings, this community-based subsistence pattern:

- Links families in widespread networks of sharing that are shaped by traditional norms of behavior;
- Provides a context in which skills, knowledge, and values are passed across generations; is accomplished efficiently with thorough, non-wasteful use of the harvested game and often by hunters who specialize in harvesting meat for the community; and
- Occurs within a broader pattern of use of and dependence upon a variety of locally-harvested wild foods that is a key element of the way of life of the local area.

The board has also noted that this community-based pattern as established by the Ahtna has been adopted and modified by other local settlers and, to a more limited degree, by other Alaska residents. This community-based, local use pattern was contrasted to a largely nonlocal, Rail belt based pattern that was probably most properly characterized as a non-subsistence use pattern. Thus, the 2006 findings addressed and discussed two basic use patterns for Nelchina caribou and Unit 13 moose.

The Board finds that there is need to recognize the range of uses within the previously-described subsistence use pattern that have developed as individuals, families, and other social groups, both within and outside the local area, have adapted to changing economic, demographic, and cultural conditions. Differences have developed concerning the level of organization of subsistence uses of Nelchina caribou and Unit 13 moose, such that the traditional uses are practiced among households and families in addition to the community-based pattern established by the Ahtna. The Ahtna community-based pattern persists within close-knit communities that are also widespread both within and outside the basin. Other basin residents and some nonlocal residents who are not part of the traditional Ahtna community engage in subsistence uses at a more individual, household, or extended family level. Both sub-patterns exhibit, with some variation, most of the criteria listed in 5 AAC 99.010(b), but different regulatory options may be necessary to provide reasonable opportunities for each. The range of uses that characterize these sub-patterns are as follows.

Since the beginning of the towns and settlement areas within the range, or with easy access to, the Nelchina Caribou Herd and Unit 13 moose, individuals, households, and families from

those towns and settlements have hunted the herd to provide for their basic necessities of life, especially food, and not just for recreational or trophy purposes. This relatively small use is not community based in nature, in that these individuals, households, and families are not linked to extensive networks of cooperation and sharing or are not part of larger social groups that organize and promote traditional knowledge and behavior, but is focused primarily on procuring food and has, as of the date of these findings, existed now for at least three generations in some of these areas. As set forth in greater detail below, this use has at least a few identifiable characteristics which separate it from the larger Rail belt based, non-subsistence use patterns.

Since at least the early 1930's, hunting of the Nelchina Caribou Herd and Unit 13 moose have been regulated by season and bag limits. Nonlocal hunters interviewed in the 1980's by the Subsistence Division of ADF&G confirmed that most hunt in the fall, with fewer participating in winter hunts. All hunters currently tend to focus their harvest efforts during the late summer and early fall, when caribou and moose are in their best physical condition and relatively accessible from the road system. Winter hunts have been an important back-up opportunity for the community based subsistence use pattern described in the 2006 findings, and may also be relied on by other subsistence users, to a somewhat lesser extent. The winter hunts do not appear to be important to non-subsistence users.

Regarding efficiency of hunting effort, the Board has not been presented with any information that would distinguish non-local subsistence users from other users based primarily from the Rail belt. Compared to community- based and other local users who hunt close to home, non-local users tend to travel greater distances (typically 200-300 miles), thereby incurring greater costs, to harvest Nelchina caribou and Unit 13 moose, making their use less efficient. However, data from the 1980's illustrates that even non-local subsistence users tend to hunt in the areas most accessible to their communities. Thus, Fairbanks-area hunters tended to hunt near the Denali Highway, and Anchorage-area hunters tended to hunt near the Glenn Highway. Also, efficiency by non-community based subsistence users may be fostered to some extent by limiting hunting to a few well-known areas year after year, within relatively easy, and predictably economical, reach of participants.

Non-local subsistence users of the Nelchina Caribou Herd and Unit 13 moose and others who are not organized at the community-level have testified, and Board members know from experience, that they prefer to return year-by-year to one or more well-known and long-established camping/hunting sites. These are traditional "caribou," "moose," or "caribou and moose" camps for these individuals and their families. If caribou or moose are not obtained during these forays, chances are they will not be obtained at all because subsistence users, unlike non-subsistence users, tend not to travel around the state to experience a wide variety of hunting opportunities. Unlike subsistence users who are organized at the community level, many other users tend to travel further into the backcountry, away from major roads and rivers, often using off-road vehicles to get to the remotest locations possible.

The Board has not been presented with any information that would distinguish the handling, preparing, preserving, and storing techniques used by individuals, households, families outside the traditional community-based context to distinguish them from their neighbors who hunt for recreation. Most users of Nelchina caribou and Unit 13 moose based along the Rail belt

freeze their harvested meat and use modern methods of handling, preparing, preservation, and storage. Compared to those who follow traditions established by the Ahtna and adopted by some other users, there is less use of organ meats, and almost no use of the hide and bones; and the roles in handling and preparing harvested animals are less formal and not based on longstanding, widely-understood rules of proper behavior towards the animals taken, as is the case for those who follow the Ahtna, community-based traditions.

Because households and families engaged in subsistence uses tend to hunt from long-established, multi-generational camps, lore about how and where to hunt is handed down from generation to generation. This intergenerational transmission of knowledge is less formalized than the way knowledge is passed on within the Ahtna community based use pattern, but it is more apparent and traditional than is the case for non-subsistence uses, in which knowledge is clearly passed from one generation to the next but very little in the way of a formal and traditional transmission system exists, and knowledge is not necessarily tied to any particular location.

All subsistence users tend to share their harvests within their families and with close friends and, to some extent, this sharing is expected from year to year, and plays parts in traditional meals and celebrations. Non-local hunters interviewed by the Division of Subsistence in the 1980's confirmed that they shared mostly within their own households, while approximately 1/3 also said they shared with friends. Sharing among nonlocal hunters, as well as among some hunters who live in the local area, is less formal than is true under the community based use pattern as practiced by the Ahtna and some other local residents, and community and peer pressure to share is far less pronounced, but it is greater than is generally the case for the non-subsistence uses of Nelchina caribou and Unit 13 moose. Some long-established families living in close proximity to, and with a well-established history of hunting the Nelchina Caribou Herd and Unit 13 moose, do expect that, if a family member successfully harvests a Nelchina caribou, the meat will be shared.

Some nonlocal hunters have testified that, as is generally the case in a subsistence use pattern, they prefer to consume wild foods over purchased foods, and often obtain the majority of their protein needs from Alaska's fish and game resources, as well as pick berries and harvest other wild foods. These preferences are sometimes expressed by non-subsistence hunters as well. Such users often travel to different, favored locations to harvest fish and game and other wild foods, but many of these locations are outside of the range of the Nelchina Caribou Herd and/or Unit 13 moose. Most non-local residents interviewed by the Division of Subsistence in the 1980's reported that moose was more important than caribou in their harvesting priorities, and often travelled to other locations to obtain moose. Locally-based users, on the other hand, tend to concentrate all of their wild food harvests in close proximity to the herd's range, and often try to harvest more than one resource per trip. Non-subsistence users tend to rely on wild foods to a much lesser degree, or not at all, compared to both groups of subsistence users.

Based on public testimony provided during the Board's last several meetings addressing the Nelchina Caribou Herd, on the Board's own experience, and on the above finding and 2006-170-BOG, the Board, applying its expertise and judgment, concludes that, at most, a few thousand people use the Nelchina Caribou Herd and Unit 13 moose in accordance with the identified subsistence use patterns, and that, therefore, a range of 600-1000 caribou and 300-600

moose are necessary to provide a reasonable opportunity for both identified subsistence uses of this herd. This finding may be updated as appropriate and as additional data on the uses is gathered.

Vote: 6-1
March 7, 2011
Wasilla, Alaska

Cliff Judkins, Chairman
Alaska Board of Game

Findings for the Alaska Board of Game
#2006 – 170 - BOG

Game Management Unit 13
Caribou and Moose Subsistence Uses

Background

Virtually since its inception, the Tier II subsistence permit system has been plagued with public complaints about inequities, unfairness, and false applications. Over the years, the Alaska Board of Game (Board) has amended its regulations numerous times to try to address management and legal problems, but the controversy continues and the system remains rife with problems. Public complaints have been primarily directed at the Tier II permitting system—particularly those near urban areas like the Minto moose hunt and the Nelchina Tier II caribou hunt.

The Board has primarily focused on the Nelchina basin caribou and moose hunts because these have generated the vast majority of the interest and complaints from the general public. In addition, Board members are concerned the hunting patterns no longer meet the Board's intent when these subsistence hunts were originally established in regulation. A review of these hunts question whether the current hunts are consistent with the Board's customary and traditional use findings based on the eight criteria the Joint Boards of Fish and Game established (5 AAC 99.010) for implementing the state subsistence law (AS 16.05.258(a)).

Statistics associated with the Nelchina caribou hunt illustrate some troubling trends. Permits have been slowly shifting away from local Alaskan residents the Board identified as the most dependent on the wildlife resources in the region and towards less subsistence dependent urban residents. Testimony from some local residents of Unit 13 indicated they no longer participated in the state subsistence program. The present Tier II scoring and permit allocation system has made it more difficult for long-time, resource-dependent residents of the area to compete for permits, forcing them to rely more heavily on the federal system to provide for subsistence opportunities. The system also makes it almost impossible for area newcomers and younger Alaskans to ever qualify for the limited permits despite their subsistence dependence on wildlife resources for food. In addition, many of the traditions associated with a subsistence way of life are being sidestepped and avoided, such as the traditional teaching of the art of hunting, fishing and trapping to younger generations; and the processing, utilization, and other long-term social and cultural relationships to the resources being harvested and to the land that produces those resources.

The Board's long-term goal is to design a system to accommodate subsistence-dependent users in such a manner that permits can be virtually guaranteed from year to year. The reliability of available hunting opportunities is critical to the maintenance of the subsistence way of life. This could be similar and complementary to the federal subsistence permit system. The federal program allows any Alaska resident living in the Copper Basin and several communities outside

of GMU 13 to harvest two caribou and one moose per year, there is no limit per household except in Unit 13(E) for moose, harvest of caribou by gender is also generally unrestricted in units 13(A) and 13(B), and moose hunters may only take any antlered bull under the federal system.

Bag limits may not be accumulated across both state and federal systems, so hunters can take a total of only one moose and two caribou for the year. State regulations allow all Alaskan residents to harvest a bull moose with spike-fork or 50-inch antlers or antlers with 4 brow tines on at least one side from September 1 – 20. In addition, up to 150 Tier II permits are issued for any bull moose, August 15 – 31, with only one permit being allowed per household. The moose seasons for federally qualified users on federally-managed lands are much longer from August 1 – September 20.

Under the state system, all caribou permits are issued under Tier II regulations and were limited to 3 per household. The Board recently changed the limit to 2 per household. The bag limit is one caribou, although in recent years, harvest under state regulation has been limited to bulls only. The caribou season for federally qualified users on federal land is 10 days longer in the fall, ending September 30 rather than September 20.

State regulations do not jeopardize a qualified federal subsistence hunter from hunting under a federal permit. However, if there are too many state applicants, controlling statutes mandate that permits be issued under the Tier II criteria, with all of its attendant problems.

The Board intends to explore subsistence hunt provisions that reflect and accommodate the customary and traditional use patterns of Nelchina caribou and moose in Game Management Unit (GMU) 13, while distinguishing those uses from other uses.

In accordance with the Joint Boards of Fisheries and Game eight criteria for implementing the state subsistence law, the following findings are made:

Findings

When the Board originally determined there were customary and traditional uses of the Nelchina Caribou Herd and moose in GMU 13, it recognized these subsistence uses were established by Ahtna Athabascan communities within the Copper River basin, and were later adopted by other Alaska residents. Due to the importance of, and high level of competition for subsistence permits in this area, the Board has undertaken, as precisely as possible, the task to identify the particular characteristics of these customary and traditional use patterns. Although they have changed over time due to limited access associated with demographic, economic, and technological factors, the patterns are characterized by traditional fall and winter hunting seasons, efficient methods and means, thorough use of most of the harvested animal, harvest areas traditionally associated with local communities, traditions about harvesting and uses that are passed between generations orally and through practice, and reliance on other subsistence resources from within these same traditional harvest areas

Criterion 1. A long-term consistent pattern of noncommercial taking, use, and reliance on the fish stock or game population that has been established over a reasonable period of time of not less that one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the fish or game caused by migratory patterns.

This criterion presupposes that an identifiable, consistent "pattern" of noncommercial taking, use, and reliance is characteristic of subsistence use. The Board finds, even though there are many similarities among all users of the moose and caribou resources in the area, there continue to be identifiable distinctions, constituting a unique pattern of subsistence use, that is traceable in direct line back to the original Ahtna Athabascan and later non-native customary and traditional use.

The Board has concluded that the pattern of moose and caribou subsistence use for this region was originally defined by the Ahtna Athabascan residents and then adopted and modified by other local settlers in the early 20th century. This pattern of use was established over many generations and focused on the total aggregate of fish, wildlife, and plant resources locally available to the area residents.

The greatest dependency on subsistence resources occurred prior to the completion of the existing road system in the 1940s. After about 1950, historical use patterns changed rapidly, especially with the introduction of more mechanized access methods. The mobility of the subsistence and non-subsistence users, the availability of seasonal and part-time employment, increased human populations, increasing competition for wildlife resources, and fluctuating game populations (particularly moose and caribou) caused major shifts in subsistence dependency of people within and adjacent to the region. Nevertheless, aspects of the traditional Ahtna Athabascan use pattern are present today, but subsistence-dependent families engaged in that pattern now account for a smaller percentage of all users than a half-century ago.

Most of the long-term subsistence patterns in this area are community-based. The area's communities tend to be long-established, by Alaskan standards, and the residents of these communities tend to be long-term residents, descending from multi-generational families with long ties to the area. These communities tend to exhibit a use of local resources that stretches back to well before Euroamerican contact. In contrast, the use pattern based out of nearby urban areas tends to involve much more recently established communities, a high degree of turnover among residents, short-term residency and, generally, a relatively brief history of use.

Criterion 2. A pattern of taking or use recurring in specific seasons of each year.

Local communities established a tradition of hunting caribou, moose, and other big game species in the late summer and early fall following subsistence fishing, and again hunting in the winter as fresh meat was needed and game was available. Winter hunts have always been critical to subsistence users, as very few other subsistence resources are available during this time. This need for, and use of, winter hunting opportunities is different from use patterns developed by residents of Alaska's more developed and urban areas, where almost all big game hunting takes place exclusively in the fall and is controlled largely by regulations. Thus, as late as 1984, over 60% of the caribou harvest taken by local residents was taken during the winter. Recent changes in that pattern can be largely attributed to regulatory changes, competition from non-local

hunters and shifting migratory patterns of the caribou herd. The seasonal use pattern was based on the traditional Ahtna seasonal movements and the general availability of game. For example, the fall hunt traditionally followed the salmon harvest, whereas the winter hunt took place whenever meat was needed and game was available.

Criterion 3. A pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost.

Before the mid-20th century, Ahtna Athabascan hunters tended to rely on boat access along the area's major waterways in fall, on foot along established trails, and by dog team along winter trails after freeze-up. With the opening up of the Nelchina basin to highway access, and the introduction of off-road vehicles, snowmachines, four-wheelers, and other transportation innovations, a shift in the use pattern occurred. Now, local residents tend to utilize roads as hunting corridors in place of rivers in the fall, and use snowmachines to access the backcountry in winter. Recently, expensive off-road vehicles have been purchased and used by many non-local users and a few more affluent local residents in an attempt to compete with non-local hunters and to increase their opportunity for success. The use of all terrain vehicles may create their own hunting efficiencies as hunting effort and transportation take advantage of labor-saving devices. Hunting methods have changed over the last 75 years. Automobiles, snowmachines, and less expensive all terrain vehicles may make hunting more effective because local and non-local residents can now cover larger areas when hunting caribou or moose. Local hunters can, when animals are available, make relatively short trips that fit into a contemporary work schedule. On the other hand, the use of highway, off-road, and similar vehicles has promoted more frequent short trips with considerable transportation costs for depreciation, fuel, and maintenance. What are being lost are the multi-resource harvest efficiencies associated with long subsistence-oriented summer and fall camping trips traditionally engaged in by Ahtna communities. Thus, recent transportation improvements and fuel prices may have changed traditional subsistence activities to the point where it is unlikely that there is a positive cost/benefit (from an economic standpoint) associated with some of the hunting techniques, especially in cases involving the use of expensive recreational motor vehicles. Overall, the use of some motorized vehicles such as ATVs has blurred the distinction between true customary and traditional patterns and recreational activities.

Residents of local communities—those with the longest histories of use of moose and caribou in the region—have traditionally traveled shorter distances to hunt than do non-local participants; and generally utilize less technology in doing so. Most Ahtna elders testified they still prefer to walk in to hunting areas and maintain permanent camps, whenever possible, in accordance with longstanding means and methods. On the other hand, most non-local users must travel at least 125 miles just to get to the area and have tended to be reliant on all-terrain vehicles (ATVs), aircraft and other expensive off-road and recreational vehicles.

As late as 1984, Copper Basin residents utilized only highway vehicles for hunting access over 65% of the time. It is the Board's conclusion that many of these newer technologies have been adopted based on a perceived need to compete with technologically-oriented recreational hunters from Alaska's urban areas. This may be a direct effect of the 1984 regulations.

Historically, much of the taking of caribou, moose, and small game was done as part of a seasonal round of subsistence activities throughout defined areas used by the community. Family dependence on these resources required a commitment of considerable time and effort to accumulate adequate subsistence resources to meet annual protein requirements and other customary and traditional uses.

Another example of subsistence efficiency in the customary and traditional use pattern has been that specialized hunters tend to provide for the community at large, sometimes or often taking more than necessary for their own family's use in their capacities as community providers, and to fulfill social and cultural obligations. Community subsistence activities are then divided among members and further introduced into traditional patterns of barter and exchange. Thus, some harvest and others process, distribute, receive and utilize the results of the harvest. Each member of the community has a defined role and specialty.

A third example of subsistence efficiency, historically, has been the effort to keep hunting as close to home as reasonably possible, minimizing cost and effort necessary to obtain the wild food resources needed by families and communities. The Board believes that, if competition among users can be reduced, this efficiency is likely to be easier for subsistence users to realize.

In these community efforts, special emphasis has been placed on allowing the maximum opportunity to harvest as many animals and the widest variety of useable species as efficiently as possible. Emphasis was also placed on food gathering activities and other traditions associated with Ahtna Athabascan communities.

Criterion 4. The area in which the noncommercial long-term, and consistent pattern of taking, use, and reliance upon the fish stock or game population has been established.

The Board is examining the area where the subsistence hunting of big and small game occurred prior to the significant change in uses and activities that occurred after approximately 1950 in Game Management Unit 13.

Subsistence uses involve an intimate and exclusive relationship between the user and a very particular set of places generally in close proximity to the hunter's residence. The user is tied to the land. Other types of uses do not exhibit these close, long-term, multi-generational ties to a particularly locality. Even as late as 1981, hunters from Copper Basin communities did not report traveling out of the basin to hunt, while urban-based hunters named alternative areas if they could not hunt Nelchina caribou and moose. Testimony from Ahtna elders emphasized their reliance on local fish and game, and their reluctance, for practical and cultural reasons, to travel outside of their traditional areas for subsistence purposes. Likewise, they described the longstanding family and community use histories and patterns for such areas. Consistently, lifelong residents of the local areas did not share the attitude of utilizing other areas. When Nelchina caribou were not available to them they either added emphasis on moose, and/or use of the Mentasta caribou herd. Resident lake fish species and small game were other alternatives commonly mentioned as alternative and supplemental wild food resources. Families in the range of the Nelchina caribou who harvested little or no wild game mentioned receiving donated meat as an alternative. This differs markedly from the use patterns found in Alaska's urban areas,

where traveling to, and exploring, new game country is deemed a virtue and an essential part of many outdoor experiences.

The Ahtna pattern exhibits a familiarity with terrain and landscape including the associated history of the region transmitted through oral traditions and Ahtna geographic placenames.

Criterion 5. A means of handling, preparing, preserving, and storing fish or game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate.

The traditional pattern has been to salvage and use all parts of the harvested animal, in conformance with traditions prohibiting waste. Lifelong residents of the Copper Basin testified they still practice their traditional methods of harvest by retrieving the entire carcass and all bones, hide, head, heart, liver, kidneys, stomach, and fat. Only the antlers were often left behind. This also differs from patterns based out of urban areas, where hunters tend to focus on the meat and antlers, usually leaving most organs, bones, and the hide in the field.

Ahtna elders also emphasized that preparation and storage are viewed as essential components of their overall use. Women traditionally look forward to practicing their roles as preparers and preservers of harvested game every bit as much as men looking forward to harvesting and providing the game. These traditions and roles are passed on by older relatives to younger family members through in-the-field training and a system of *engii* (rules of appropriate behavior or taboos) that teach traditional means of harvest, handling, and preparation. These "engiis" emphasize traditional Ahtna views of the human place within the natural world and a respectful treatment of animals.

Criterion 6. A pattern of taking or use that includes the handing down of knowledge of fishing or hunting skills, values, and lore from generation to generation.

The Board has concluded that the subsistence traditions of handing down the hunting and fishing knowledge, values and skills through family oriented experiences are an important aspect of the subsistence way of life in this region. Providing the opportunities for the young and old to participate in subsistence activities is critical to the perpetuation of traditional knowledge about hunting locations, hunting methods, methods of handling harvests, and respectful treatment of wildlife. To increase hunting opportunities for youth, a recent provision adopted by the Board allows a resident hunter between the ages of 10 and 17 to hunt on behalf of a resident permit holder. The youth hunter must have completed a certified Basic Hunter Education course and be in direct supervision of the permit holder, who is responsible for ensuring all legal requirements are met.

Ahtna elders have passed this knowledge on to the next generation in the context of community-based traditions that included relatively long summer and fall camping trips described above. As mentioned previously, teaching roles and lessons tend to be more formalized through the system of "engiis" than is the case for uses based out of the urban areas. Skills emphasized included not only those needed to harvest each species, but also the art of field preparation and care for a wide

variety of species and the utilization, preparation, and distribution of game. Most local users learned how to hunt in the local area from other family members in the local area. Most older, local users have also taught other family members. On the other hand, most non-local users learn about hunting in the area by personal experience or from fellow non-local, unrelated hunters. Also, non-local users tend to be controlled primarily by applicable statutes and regulations rather than long-term oral traditions and community-based values.

The Board considers it extremely important to stress the need to pass on skills and knowledge associated with utilization of all parts of the animal taken, as well as preservation of the traditional, cultural rules and family values associated with these subsistence users in this area. Field skills need to be perpetuated for handling not only the meat but the hides, internal organs, stomach, and intestines. This is consistent with the customary practice of maximizing the use of animals taken characteristic of subsistence uses.

Criterion 7. A pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift-giving.

Widespread community-wide sharing is customary in local communities, involving all family members, elders, others in need, and taking place in formal settings such as during ceremonial potlatches. As such, sharing has associated social, cultural, and economic roles in the community. Sharing is expected and follows well-understood community standards that are structured on kinship relations and obligations. As an example, young hunters are required by Athabascan tradition to give all or most of their first harvested animal to elders and others in need. Also, traditional barter and exchange follow these standards. Successful Ahtna harvesters traditionally share some of their moose and caribou meat with other families and communities to meet their social obligations and for ceremonial purposes. This, again, is in contrast to the uses arising out of the urban areas where hunters are completely free to share, or not share, as they see fit and there is not a system of sharing, barter, and exchange. In addition to the key social and cultural roles of sharing in the local rural community, sharing of subsistence resources plays a key economic role in distributing essential food supplies throughout the community. The Board has concluded it is imperative to accommodate the customary and traditional family and community harvest sharing practices as part of the subsistence way of life to the maximum extent possible.

Use of the state authorized proxy system has provided a limited opportunity for individuals to harvest for permittees who are personally incapable of participating in the field but who have a personal history of subsistence use. Proxy hunters are not required to fully accommodate the customary and traditional practices. Non-local users, on the on the other hand, tend to have few established rules or traditions requiring sharing, and seldom share outside of their own households. External sharing, when it occurs, is usually with friends and co-workers, and extensive kinship networks are absent. There are no non-local traditions of community-wide meat distribution.

Criterion 8. A pattern that includes taking, use, and reliance for subsistence purposes upon a wide diversity of the fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life.

The Board has concluded it is critical to emphasize the values associated with the reliance and dependence on a wide variety of fish and wildlife resources as an important element of the subsistence way of life for this region. Subsistence use patterns historically required a significant dedication of time and effort towards the harvesting of adequate fish and game resources to meet the protein and nutritional requirements of the subsistence harvesters, their families, and their communities.

This differs markedly from the more recreational type of uses arising out of the Alaska's more urban areas, where a single, focused effort to harvest only one resource in any given location, and then salvage only what is legally required from that resource, tends to be a predominant characteristic. To the extent that other foodstuffs are harvested, they are often harvested in completely separate areas, far removed from the fall hunting area. Also, different hunting areas are explored in different years. This separation of the interconnected diversity of resource uses also seriously undermines the principles reflected in Criterion 3. As more and more emphasis is placed on single species harvesting patterns, cost is increased, and efficiency is reduced. Such practices do not reflect the customary and traditional use pattern.

Reliance on most, or all, locally available sources of wild food is characteristic of a traditional subsistence way of life where maximum economic and nutritional benefits typically must be derived from the hunt and harvests. The local harvest of salmon has historically been the most important wildlife resource in terms of useable pounds per subsistence-dependent family in Unit 13. Alaska residents are allowed to use a fish wheel in the Copper River between Slana and the Copper River bridge at Chitina to harvest salmon—permits are issued free of charge. The limit is 500 total salmon for a household with two or more members and 200 for a household with one member, with no limit on the number of Chinook salmon in the total harvest by fish wheel. The salmon run in the Copper River is primarily comprised of sockeye and Chinook salmon.

Use of moose and caribou by local communities is embedded in a wide range of other fish and wildlife uses. It is also embedded in a mixed, subsistence-cash economy characterized by seasonal employment and relatively low cash incomes. A wide variety of subsistence foods are still critically important in these local economies. Almost all hunting, fishing, and gathering takes place locally and the majority of meat and fish consumed tends to come from local sources.

Big game species are taken for food and not for their trophy value by families engaged in subsistence uses. The Board may undertake efforts to reduce or eliminate the trophy values of the resources taken to focus entirely on the inherent subsistence values.

Vote: 6/0

November 12, 2006
Anchorage, Alaska

Ron Somerville, Chairman
Alaska Board of Game