(FINDING# 93-06-FB) 93-144-FB

May 20, 1993

The Honorable Ronald H. Brown Secretary Department of Commerce Washington, D.C. 20230

Dear Mr. Secretary:

("Board")

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The Alaska Board of Fisheries ("Board") manages the Bering Sea/Aleutian Islands (BS/AI) crab fisheries under delegated authority of the Fishery Management Plan for the King and Tanner Crab Fisheries in the Bering/Aleutian Islands ("FMP"). The Alaska Crab Coalition has appealed the Board's recent decision to adopt regulations establishing a superexclusive area for Norton Sound king crab fishery, claiming inconsistency with the Crab FMP.

The FMP requires the Board to provide written explanations of the reasons for its decisions concerning management of crab fisheries. The Board submits the following explanation of its decision concerning the Norton Sound crab fishery.

The Board met February 2-10, 1993, in Anchorage to consider comprehensive management of king and Tanner crab fisheries, including those in the BS/AI. The meeting was publicly noticed, consistent with the Alaska Administrative Procedures Act, and was well attended by members of the industry and other concerned members of the public. In addition, representatives from the National Marine Fisheries Service (NMFS), the North Pacific Fisheries Management Council (NPFMC), State of Alaska Office of the Attorney General (AAG), NOAA General Council and the Alaska Department of Fish and Game (ADF&G) were present.

To appreciate the breadth of issues covered at this meeting, we submit a list of the following reports and presentations which the Board considered prior to their deliberations:

- 1. Biological Perspectives in Crab Management in Alaska. By Dr. Gordon Kruse, ADF&G
- Summary of the Fisheries Management Plan (FMP) for Crab. By Dr. Ray Baglin, NMFS¹
- Summary of the Invalidation of Crab Pot Limits by the Secretary of Commerce. By Jonathan Pollard, NOAA General

The presentations by NOAA General Council, NMFS and the presence of NPFMC staff, satisfy the requirements of section 9.2 of the FMP.

Council¹, and Earl Krygier, ADF&G

- 4. Review of Pot Limit Alternatives. By Earl Krygier and Peggy Murphy, ADF&G
- 5. Report to Industry on the Eastern Bering Sea Crab Survey. By Dr. Robert Otto, ${\rm NMFS}^{\rm I}$
- 6. History of the Regulation for an Escape Mechanism in Shellfish and Bottom Pots. By Al Kimker, ADF&G
- 7. Tests of Galvanic Release for Escape Devices in Crab Pots. By Dr. A. J. Paul, Univ. of Alaska, Institute of Marine Sciences.
- 8. Starvation Resistance in Alaskan Crabs. By Dr. A. J. Paul, Univ. of Alaska, Institute of Marine Sciences
- 9. Biodegradable Escape Mechanisms for Pot Gear: A Summary. By Dr. Gordon Kruse and Al Kimker, ADF&G
- 10. Bitter Crab Syndrome in Alaskan Tanner Crab: Importance and Management Considerations. By Dr. Ted Meyers, ADF&G
- 11. Staff Report on Aquatic Farming (FRED). By Jim Cochran, ADF&G
- 12. Review of King and Tanner Crab Fisheries in the Southeastern Alaska and Yakutat Areas. By Tim Koeneman, ADF&G
- 13. Review of King and Tanner Crab Fisheries in the Prince William Sound Area. By Charlie Trowbridge, ADF&G
- 14. Review of King and Tanner Crab Fisheries in the Cook Inlet Area. By Al Kimker, ADF&G
- 15. Review of Westward King and Tanner Crab Fisheries:
 - a. Kodiak, Chignik and South Peninsula. By Al Spalinger and Dave Jackson, ADF&G
 - b. Aleutians. By Mike Ward, ADF&G
 - c. Bering Sea. By Ken Griffin, ADF&G
 - d. Norton Sound. By Charlie Lean, ADF&G
- 16. Summary of the Crab Pot Buoy Sticker Program. By Ken Griffin, ADF&G
- 17. Mandatory Observer Program Overview. By Rance Morrison,

- 18. Observer Program Data Analysis and Reporting. By Donn Tracy, ADF&G
- 19. Westward Region Research Report Programs:
 - a. PIT Tag Project (video/slide presentation). By Leslie Watson, ADF&G
 - b. Collector Project (video/slide presentation). By Forest Blau and Bill Donaldson, ADF&G
- 21. ADF&G Kodiak and South Peninsula Trawl Survey Overview (video/slide presentation). By Dave Jackson, ADF&G
- 22. Potential Economic Impacts of Alternative Pot Limits to the Economic Performance of Bristol Bay Red King Crab and Bering Sea C. opilio fishermen. By Dr. Joshua A. Greenberg, Univ. of Alaska, Fairbanks
- 23.Overview of the FMP criteria and Magnuson Act standards. (Bonnie Harris, Alaska Office of the Attorney General).

The issue of a superexclusive red king crab ("RKC") registration area in the Norton Sound section (Bering Sea Area Q3) first came before the Board as an agenda change request from the Norton Sound Economic Development Corporation during the March 1992 BS/AI crab meeting in Anchorage. Upon accepting the matter as an agenda change, the Board informed the industry and public present at that meeting that the issue of the Norton Sound superexclusive registration area would come before the Board at its February 2, 1993 statewide king and Tanner crab meeting in Anchorage. The Board also published proper public notice for the issue at the February 1993 meeting under the Alaska Administrative Procedures Act.

At the February 1993 meeting, the Board heard public testimony from numerous individuals, including crab industry representatives and organizations, advisory committee representatives from the Pacific Northwest, Dutch Harbor, Sand Point, Kodiak and Norton Sound regarding crab management; most of the advisory committees and a few individuals made comments on exclusive registration areas in the Bering Sea. The Board heard presentations from the management staff and the Attorney General's office regarding this issue. Guidance from the Attorney General's Office, in consultation with NOAA General Council, indicated that the superexclusive designation would be permissible under the FMP; it being a subset of "exclusive registration" discussed in section 8.2.8 of the FMP. After deliberating the subject, the Board designated the Norton Sound Area, Q3, as a superexclusive registration area for RKC.

This action was taken in concert with other BS/AI crab management measures by the Board to address conservation, management and allocation concerns of BS/AI crab resources in the face of depressed stocks, increased fleet participation, capitalization and efficiency. See FB No. 93-__².

Under the status quo, the goals and objectives of the FMP and the national standards of the Magnuson Act (FMP ch. 7 and Appendix B), were not being met in Norton Sound; thus Board action was necessary. In particular, the status quo fishery was preventing economic stability to coastal communities and to segments of the industry wishing to concentrate their dependence on the Norton Sound summer RKC fishery; and conservation, full utilization and proper management of the resource was not occurring.

The actions taken by the Board to redress these concerns with regard to the Norton Sound section were to: (a) establish a 50/40 pot limit depending on vessel size, (b) establish a superexclusive registration area (whereby vessels may choose to fish in the superexclusive area in any given season, or outside of the superexclusive area, but may not fish both within and outside of the area in a season), and (c) extend the summer season date from July 1 to September 3 (it had previously been from August 1 to September 3).

The management goal of the FMP is to maximize the overall long-term benefit to the nation of the crab stocks, consistent with proper stewardship of the resource. Within the scope of this goal are seven objectives which relate to biological conservation, economic and social issues, gear conflicts, habitat preservation, vessel safety, due process and research and management. The establishment of the superexclusive registration area for Norton Sound is anticipated to better achieve these objectives than the existing regulations; under which some objectives were not being met. In support of its regulatory action, the Board makes the following findings for the Norton Sound RKC fishery consistent with chapter 7 of the FMP:

7.2.1 - Biological Conservation: Because of the small guideline harvest level and derby style fishery lasting only 48 hours, over and under harvest has commonly occurred. A superexclusive registration area is expected to produce a more orderly fishery with improved management precision which will provide management capability to maintain Norton Sound stocks for the long-term sustained yield of harvestable surpluses (ie., full utilization), while minimizing risk of overharvest. ADF&G would still be able to estimate and manage for deadloss as they do currently; and the Board anticipates that by slowing down the rate of harvest,

This citation (not yet designated) is the Boards' 1993 findings for pot limits.

deadloss, which occurs in a fast paced fishery, will decrease.

Additionally, the new regime will assist ADF&G in ensuring the continued 10 percent exploitation rate to protect stocks available for subsistence use, and the area closed to protect subsistence fishing will now be managed in the manner anticipated by the Board when 5 AAC 34.935 was put into place in 1983.

7.2.2 - Economic and social: The Board anticipates that its action will maximize social and economic benefits to the nation over time as specified in the FMP. Under the old regulation, the fishery had progressed to a point that in 1992, it provided no economic benefit. [As noted in the Board report, 27 vessels landed 74,029 lbs of crab at an average price of \$1.75/lb. This would yield less than \$5,000 per vessel, an amount which would not even cover expenses (ie., no net economic benefit).]

On the other hand, the new regulation should provide beneficial economic impacts to the coastal communities of the Norton Sound section including, Nome, Brevig, Diomede, Elim, Gambell, Golovin, Koyuk, Mission, St. Michael, Savoonga, Shaktoolik, Stebbins, Teller, Wales, White Mountain, Unalakleet, and others. The social and economic plight of these communities has been testified to the Board over the last year and a half in its meetings on subsistence, crab, salmon and herring. As documented in Part III of the Bering Strait Regional Community Development Plan (BSRCDP) provided to the Board, these communities have severely depressed economies. Though the median household income in these communities is about \$16,000, roughly 35 percent of the people in these communities are below the poverty line and unemployment region wide is 75 percent. Commercial fishing provides one of the limited alternatives for cash income. Based on the economic information presented by Dr. Greenberg, the Board concludes that the range of household incomes Jacobsen Lale in Norton Sound is in distinct contrast to the average household income supported by participants of the highly mobile and profitable Bering Sea crab fleet. The Board finds that while the anticipated social benefits to the coastal communities from creation of superexclusive registration area is difficult to explicitly quantify, real benefits do exist. Creation of a stable, long-term fishing opportunity will provide for maintenance of local culture and family ties, teach younger individuals within the communities the value of preserving the long-term health of the resource, and increase understanding and support of management provided by state and federal entities. Additionally, a stable fishing economy in an economically distressed area can provide benefits of decreased welfare dependency, decreased alcoholism, and decreased abuse and suicide symptomatic of societies denied productive employment.

The historic subsistence economy of the coastal communities is gradually shifting to a subsistence/cash economy. Development opportunities which maintain consistency with cultural ties provide

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the best opportunity. To the extent which information is available, the Board finds it likely that because the fishery can occur over a longer period of time under the superexclusive area scheme, it will have access to fresh markets. Such access should command a greater price per pound and increase the overall value of the harvest to the State and the nation.

7.2.3 - Gear conflict: Prior to 1977, there was no commercial RKC fishery in Norton Sound. Board records indicate that in 1977 local residents who participated in the winter and summer subsistence harvest of king crab had their Norton Sound Fish and Game Advisory Committee propose to the Board to open commercial fishing in their area. At this meeting, the Department proposed seasons, size limits and harvest guidelines for the Nome section summer commercial fishery. Public testimony during this meeting indicated that local Nome residents would participate in the summer fishery, thus providing an alternate income to the herring and limited entry salmon fisheries. The Board allowed an experimental fishery in both the winter and summer during 1977 and an open fishery in 1978. Three local fishers tried to participate in the summer fishery, but were simply overwhelmed by the disparity of efficiency demonstrated by the Bering Sea crab fleet.

As addressed in staff reports to the Board during the 1978 shellfish meeting, public proposals from the Norton Sound Advisory Committee and the Norton Sound King Crab Fishermen's Association asked that pot limits be established for the Norton Sound summer king crab fishery. The need for a controllable harvest and slower development of the fishery for local residents was stated as the justification. The public also proposed establishing the entire Bering Sea registration area as exclusive, stating that the original reasons for the areas nonexclusive designation, the full utilization of the areas fisheries due to the foreign allocation for some of these crab species, was no longer true as the fleet was already fully exploiting the crab resources from this area. need to control the rapidly expanding and highly mobile "Bering Sea" crab fleet, capable of catching the existing harvest quotas from this area in very short periods of time then moving to other king crab areas in the state, was also an expressed concern.

This efficiency disparity never allowed local fishers to capitalize and develop into the fishery on their door step. Today, the Norton Sound summer RKC fishery is dominated by a mobile fleet of large catcher-processors and catchers vessels. In short, the fishery was instituted in a fashion that unintentionally disadvantaged a component of the fishery, the local Norton Sound vessels. It is this inequity the Board seeks to resolve in establishment of the superexclusive registration area.

The Board finds no reason to believe a less mobile fleet of catchers and processors could not likewise harvest and market available stocks. Testimony by representatives from Norton Sound

indicates that there are fishing vessels in that area capable of fishing these stocks, or capable of being modified to fish these stocks. Processing capacity is also available.

- 7.2.4 Habitat Objective: The potential overharvest of existing RKC, and handling mortality of females and juveniles during a derby style opening, was concurrently a persuasive argument for the Board to employ superexclusive registration in Norton Sound. Despite the Board's 100 pot limit for the 1992 RKC season in Norton Sound, the largest fleet since 1981, 27 vessels, fished the opening. The Board determined it must either take dramatic action, or yearly face the potential of overharvest and possible stock damage, or total closure of the Norton Sound fishery.
- 7.2.5 Vessel Safety: The Board altered the opening date of the fishery to July 1st to allow for the extension of an orderly fishery; the season was previously August 1 to September 3. The Board anticipates a higher participation by small vessels and a reduction in the number of pots fished. This will allow a longer season to provide for vessel safety and an extended harvest window to achieve harvest objectives.
- 7.2.6 Due Process: The normal Board process, in conjunction with the appeals process outlined in the crab FMP, allows for adequate due process.
- 7.2.7 Research and Management Objectives: The more orderly fishery resulting for the superexclusive designation will provide a better opportunity for the ADF&G area biologist to monitor, assess and manage for the health of this resource.

As the basis of these actions the Board notes the following:

Stock status: The Area Q3, Norton Sound, RKC stock is identified as a separate biological and geographical substock of RKC in the Bering Sea. Size at maturity is smaller than other BS/AI RKC stocks and the crabs themselves are distinct in appearance. This stock is currently only 1/3 of its legal male crab virgin biomass. (These stocks have been regularly surveyed by NMFS trawl gear since 1976. ADF&G pot studies were conducted from 1980 to 1985.) The legal male population available for commercial harvest is estimated at 3 million plus pounds. With controlled effort and minimization of deadloss and handling mortality, this stock is capable of providing continuous opportunity for a subsistence fishery as well as sustainable winter and summer commercial fisheries.

Currently, the fisheries in Norton Sound are comprised of:

(a) RKC Subsistence fishery. A permit fishery recording daily effort and catch information is primarily conducted through the ice with hand lines and small pots. It averages over 100 participants, with fishing access greatly influenced by

weather and ice conditions. There are no management concerns with this fishery.

- (b) Winter RKC commercial fishery. In 1992, 13 participants harvested 7,478 RKC (21,177 pounds with a value of \$76,000) for local and Anchorage markets. This fishery occurs November 15 May 15 and presents no management concerns.
- (c) Summer RKC commercial fishery. The summer commercial fishery is managed at a reduced exploitation rate of 10%, with a 15 mile closed area to protect females, under-sized males, and the availability of crab to the nearshore subsistence fishery. The number of legal males present in the fishery are estimated to be stable since 1985. Under present regulations, even with the 100 pot limit, the fishery is demonstrating extreme management concerns.

In 1992, 22 catcher and 5 catcher-processors vessels participated in a 48-hour derby style fishery that opened at noon on August 1. Despite implementation of a 100 pot limit for the 1992 season, excessive effort resulted in an inability to manage the fishery inseason; so the season closure date of August 3rd was set at the start of the season. This resulted in non-attainment of the harvest objective of 300,000 pounds (only 74,029 pounds had been taken). With the number and capability of the vessels in the area, the presence of fresh water and its associated deadloss mortality, the risk of overharvest of legal crab and mortality to prerecruit size crab was determined to be too great to conduct another opening to try to achieve the harvest objective.

Harvest effort: The Board reviewed management of the king crab fisheries covered by the FMP and the small guideline harvest level (GHL) fisheries in the Pribilof district, and the St. Matthews, and Norton Sound sections. These fisheries distinguish themselves as being particularly problematic for managers. Revisions to the St. Matthews section and Pribilof district pot limits and the opening dates by the Board are anticipated to increase the ability of the ADF&G to protect stocks near threshold by a reduction of effort and harvest rates. These management measures will allow the currently foregone harvest of available stocks in the Pribilof district to be harvested for the first time in several years.

In 1992, the blue king crab (BKC) fishery in the St. Matthews section harvested 3.1 million pounds in 60 hours. In 1987-88, the last year the Pribilof fishery occurred, approximately 700,000 pounds of crab were harvested. In contrast, the Norton Sound RKC fishery is conducted on a harvest guideline of only 300,000 pounds. Though this is the smallest BS/AI RKC stock generally open for harvest, it is accessible to the same fishing effort that harvests the 207 million pound opilio and 38 million pound bairdi quotas.

Management options: In an effort to create a nondiscriminatory

harvest opportunity on the comparatively tiny available surplus in Norton Sound Area Q3, the Board lowered the Norton Sound RKC pot limit to 50/40 pots consistent with the manner in which it regulated the Pribilof BKC fishery. The Board also changed the season opening date from August 1 to July 1 in order to increase opportunities for the vessels that choose to fish within the Norton Sound superexclusive area and season harvest attainment. closing date was not changed from September 3. A change of date to September 15, concurrent with the St. Matthew and Pribilof fisheries, would have resulted in harvest of molting, soft-shell male crab and was therefore undesirable. Opening the fishery in July would increase likelihood of small vessels that participate in the local herring and salmon fisheries to harvest these stocks at a slower and more manageable rate. Larger vessels may still participate in the superexclusive 40/50 pot limit RKC fishery, but must necessarily evaluate whether the income derived from this harvest justifies loss of opportunity to participate in the six other brown, blue and red king crab fisheries.

Comments from the public and ADF&G staff reports on the subject of exclusive or superexclusive registration for the Norton Sound section revealed some particularly compelling aspects regarding commercial fisheries opportunities. The 1992 herring fishery, which recently has accounted for 80% of cash income earned by commercial fishermen in the Norton Sound section, did not occur due to the extremely late departure of the ice pack in 1992 and the absence of buyers. Additional information previously presented to the Board, relative to worldwide herring markets, leads to the conclusion that the current statewide abundance of herring available for harvest in the sac roe fisheries, all of which occur prior to the Norton Sound fishery, are capable of providing nearly twice the historical supply volume. Consequently, there is a strong likelihood that even if the Norton Sound sac roe herring fisheries occur in 1993, the product will likely command the lowest price in a severely depressed market.

The salmon fishery is also depressed in Norton Sound. Chum salmon were historically the bread and butter fishery of this area. These stocks are extremely depressed presently, and there is virtually no commercial fishery. Commercial harvest of king salmon in Norton Sound is only 2,000 - 3,000 kings. In "even years", when there is often abundant pink salmon runs, there are no markets available. In 1992 a small coho harvest occurred in the southwest corner of the area with approximately 7,000 fish taken.

The Board finds that economic opportunity for commercial fishermen who participate in the Norton Sound fisheries, including local, non-local, resident and non-residents alike, are severely limited in the herring and salmon fisheries; and that crab alone remains as the only viable source of commercial fisheries income. The NPFMC recently came to similar conclusions in the development of the CDQ program.

Registration areas: Section 8.2.8 of the FMP provides that only the Board may consider exclusive registration to distribute effort, stabilize coastal community economies and create fisheries where less mobile vessels will be given an opportunity to participate. This may reallocate catch among different sized vessels; so findings as to the benefits are important. When the Board designates an area, district or section as exclusive, it must produce a written explanation that considers the six factors set out in 8.2.8 of the FMP. The following is a summary of the Boards consideration of those factors. Additionally, the Board agrees with, and incorporates by reference, the information presented by the Norton Sound Economic Development Corporation, (See Attachment 1 & 2):

- The extent to which the designation will facilitate proper management of the fishery: The superexclusive designation, in conjunction with the reduced pot limit and the expanded season, will aid management in the following ways: a) due to the size of the catch quota, remote location of the fishery, and limited financial and personnel resources available to manage this fishery, the Norton Sound king crab fishery needs to be conducted over a longer period of time or slowed down in order to manage it properly; b) the designation will provide an orderly fishery which improves management precision so that the resource is not underharvested nor overharvested as occurs presently with the current management tools available; because of the small size of the stock, a more restrictive pot limit alone does not slow down or control fishery effort; d) a likely effect of decisions by crab fishermen will be that less larger capacity boats and more smaller boats will fish in Norton Sound thus reducing total daily catching capacity and slowing down the fishery; e) a slower paced fishery will reduce deadloss problems associated with the Norton Sound ice melt and fresh water lens and with longer soak times reduce handling mortality of females and juveniles.
- 2. Extent to which such designation will help provide vessels with a reasonable opportunity to participate in the fishery: a) all participants, both large and small boats, will have an opportunity to fish the Norton Sound king crab fishery under a superexclusive registration designation, but can not fish in other exclusive or nonexclusive registration areas in that year. The FMP notes that "exclusive registration areas can help provide economic stability to coastal communities (see objective 7.2.2) or to segments of the industry dependent on an individual registration area's crab stocks, particularly if the character of the fishing fleet and the related industry participants depending upon the registration area's potential production would not be allowed movement to registration area. This is particularly advantageous to the less mobile vessels if the area they fish is not the most profitable area for the more mobile vessels." b) few local

fishermen have been able to participate in the Norton Sound king crab fishery in an cost effective manner due to the declining number of fishing days, the small size of the local boats, and the high costs required to purchase larger vessels and gear. In addition, the area lacks adequate harboring facilities for locally owned larger vessels which could compete with the larger Bering Sea crab boats; c) slowing down the fishery and increasing the number of fishing days as a result of superexclusive registration designation will help provide fisherman who own smaller boats an opportunity to participate in this fishery; d) local fishermen in Nome who helped initiate this fishery will be able to again participate.

- The extent to which such designation will help to avoid 3. Established processing sudden economic dislocation: facilities and fishing fleets within a registration area may provide economic stability for the labor force and effected communities and may be destroyed or adversely affected by an in-season influx of mobile processing plants and additional a) information provided from the BSRCDP fishing power: document and ADF&G, indicates that local fishers originally proposed the commercial fishery in their area and tried to participate, but were simply overwhelmed by the disparity of efficiency demonstrated by the Bering Sea crab fleet; fishing fleets and processing facilities located in the Norton Sound registration section are now underutilized because of the current management regulations. As a result local communities are already adversely affected by the in-season influx of mobile processing vessels and additional fishing power; c) there are over 150 herring skiffs in communities of the Norton Sound registration section; many are capable of participating in the summer king crab fishery if more time were available for fishing; d) fish processing and cold storage facilities located in Golvin, Moses Point, Unalakleet and Nome, which are not in use at this time, could function as delivery, handling, processing and shipping centers for locally harvested king crab thus provide local employment; with capital stimulation from crab processing these facilities could be up-graded to provide processing for local herring and salmon harvests; e) loans are available through NSEDC to help local fishers with vessel equipment and up-grades, crab gear purchases, and assistance in marketing crab;
- 4. The extent to which the designation will encourage efficient use of vessels and gear: a) fishermen who own herring skiffs which are capable of participating in the crab fishery now use these boats only for a very brief herring fishery lasting only a matter of hours; short term prospects for herring are in doubt and these large herring skiffs can be easily modified to day fish out of local ports; b) fishermen will be able to use the same fishing boats they use for

herring in the king crab fishery thus making more efficient and cost effective use of their boats.

- 5. The extent to which the economic benefits conferred by the designation will be offset by economic costs a) one potential distribution avenue for inefficiencies: locally caught king crab currently under investigation is for live crab delivered to markets in Anchorage, Fairbanks and Japan during the summer tourist season; b) NSEDC's partner in the pollock CDQ fishery, Glacier Fish Company, and the Lower Yukon CDQ partner as well, have agreed to assist distribution of king crab caught and delivered locally with the Norton Sound registration section; c) increased costs due to changes in economies of scale as a result of a possible shift in the sized makeup of the fishing fleet and location of processing from larger fishing vessels and mobile processors to smaller boats and shoreside delivery, handling, processing and distribution may be offset by added value in the product; in effect, a shift from a focus on increase product value (1992: \$1.75/pound, winter: \$3.50/pound); d) local fishermen who have not been able to participate will harvest the crab thus increasing local employment and income in a region of the state which is cash poor; e) since, as a fleet, there were no economic benefits for the participants of the 1992 fishery, and average participation over the past 10 years has averaged only 10 vessels per year (most all of whom also participate in the other BSAI highly profitable king and Tanner crab fisheries), the area designation should not pose significant those not wishing to participate within a costs to superexclusive area.
- The extent to which other management measures could yield the results desired from the designation: a) some other management options such as further pot limit (maybe 25 pots) and vessel size limit reductions, or restrictive trip limits may be available; but these options would likely be more restrictive to all fishermen and raise management costs; no other management option would yield the desired results of a superexclusive registration for the Norton Sound section c) given the fact that exclusive king crab fishery; registration for the Bristol Bay RKC exists and has not served to restrict effort in the fishery, the Board could have designated all king crab areas as exclusive, but this would could severely impact the larger vessel fleet. A designation of Norton Sound merely as exclusive might force some vessels to choose between the Bristol Bay RKC and the Norton Sound RKC fishery. However, given that the Bristol Bay RKC stocks are declining precipitously and the fact that crabbers were warned that due to conservation concerns, the 1993 season for Bristol Bay RKC may not occur, a simple exclusive registration might not provide the reduction of effort necessary to manage the Norton Sound fishery and address socio-economic goals.

Therefore, the Board finds the more restrictive definition of Norton Sound as a Superexclusive registration area necessary, fair and timely. Furthermore, Board members found that examples 4, 5 and 6 on pages 8-30 and 31 of the FMP precisely fit the present scenario at Norton Sound.

The Board's overall assessment of the economic opportunity for commercial fishers who participate in the Norton Sound section fisheries, is that out of three available fisheries, herring, salmon and crab, two are in serious decline and the crab fishery remains as the only source of sustainable commercial fishery income. The FMP at section 8.2.8 allows the Board to consider exclusive registration areas to distribute effort, stabilize coastal community economies, and create fisheries where the less mobile vessels such as used in herring and salmon fisheries will be given an opportunity to participate.

The Board considered that there is an exclusive registration area for Bristol Bay RKC that has really not served to restrict effort in the fishery. Furthermore, implementation of a 100 pot limit for the Norton sound RKC fishery in 1992 rather than restricting the fishery resulted in an unprecedented participation by 27 vessels, 5 of which were catcher processors. The vessels were primarily a cross section of the Bering Sea Fleet; slightly over half are home ported in Seattle, the rest are ported on the Alaska Peninsula or in Dutch Harbor. Only one vessel from the Norton Sound area participated.

For these reasons, the Board acted to make Norton Sound superexclusive.

T.M. Elias, Chairman

Alaska Board of Fisheries