


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke  
Executive Director 

DATE: January 3, 1994

SUBJECT: Crab Management

ESTIMATED TIME

3 HOURS

ACTION REQUIRED

- (a) Final review of the Norton Sound superexclusive area registration proposal analysis.
- (b) Board of Fisheries/Council Consultation Group meeting.

BACKGROUND

(a) Norton Sound Superexclusive Area Registration

In September the Council recommended staff begin analysis of a proposal to establish the Norton Sound red king crab area as a superexclusive registration area, authorized as a Category 1 management measure under the crab FMP. The Council initially reviewed the analysis in December, and released it for public review.

Alternatives considered in the analysis include:

Alternative 1: Status Quo, or no action. This results in no superexclusive registration for the Norton Sound king crab fishery. Vessels can fish in this area and any other king crab registration area. The fishery would continue to be managed by the State of Alaska.

Alternative 2: This alternative would add superexclusive registration for the Norton Sound king crab fishery as a management option to Category 1 of the crab FMP, ~~either for 1994 only, or~~ until amended. The Norton Sound king crab fishery would be designated a superexclusive registration area in addition to those management measures already existing. Therefore, any vessel participating in this fishery would not be able to participate in other statewide or BSAI king crab fisheries. *No Sunset*

Alternative 3: This alternative would recommend designating Norton Sound as an exclusive king crab registration area, either for 1994 only or until amended. Therefore, by choosing this alternative the Council would be recommending that the Board change the registration status of this area. Any vessel fishing in the Norton Sound king crab fishery would not be able to fish in any other exclusive king crab fishery, but would be able to fish in any nonexclusive area for king crab. At this time all king crab areas in the BSAI are nonexclusive except Bristol Bay and Dutch Harbor, which are exclusive.

Attached as Item D-1(a) is the Executive Summary of the analysis. If the Council takes final action on this plan amendment at this meeting, rulemaking should be complete prior to a July 1, 1994 opening date for this fishery.

(b) Crab Consultation Group

The State/Federal Action Plan for Management of Commercial King and Tanner Crab Fisheries that we considered and approved in September established a Council and Alaska Board of Fisheries Consultation Group to meet publicly each year to review crab stock data and management and provide guidance on pertinent crab issues. That meeting is now scheduled for Friday, February 18, 8:30 to 5 p.m., in Anchorage. Council members Alverson, Hegge, Millikan, Pennoyer, and Samuelsen are on the committee, Board members have not been announced yet. The Pacific NW Crab Industry Advisory Committee likely will meet ahead of the Consultation Group. The Board of Fisheries will meet in March. We need to identify any particular issues that should be discussed.

## EXECUTIVE SUMMARY

The Norton Sound summer king crab fishery has a unique collection of problems which makes fishery management difficult. These problems include overcapitalization, short seasons, high management costs, non-achievement of guideline harvest levels (GHL), and a failure to meet the goals and objectives of the Bering Sea crab FMP and the Magnuson Act. This fishery has the smallest biomass and GHL in the Bering Sea/Aleutian Island crab fisheries. Historically, the fishery has been characterized by years with low levels of participation and fairly high catch rates followed by years with high levels of participation and low catch rates. Lately, a combination of factors has led to high participation which is expected to continue into the future. These factors are based primarily on the overcapitalized crab fleet and on participants' efforts to establish catch histories in the event individual fishing quotas (IFQ) are instituted.

The Norton Sound summer king crab fishery was established by the Alaska Board of Fisheries in 1977 at the request of local residents. This was an attempt by local residents to broaden their fishery base. The region has a 35% unemployment rate and median household income of around \$16,000. Prior to 1993 only a few local residents participated in the fishery. Most believed their limited catching capacity was greatly exceeded by the larger crab vessels, they had difficulty finding a market for their crab and, at least recently, that the investment in crab pots was not justified by a four day or less fishery. Traditional salmon and herring fisheries in the region have failed lately and there are currently few viable fisheries remaining. The 1993 king crab fishery represented the largest fishery in the region in terms of income.

In 1989 and 1990 the fishery lasted four days or less. In 1991 the fishery was not opened because the managing agency, the Alaska Department of Fish and Game, did not believe that adequate management could occur given the small GHL and the available fleet effort. When it was opened again in 1992 there was a GHL of 300,000 pounds and a new limit of 100 crab pots per vessel limit. A total of 27 mostly large vessels, fishing 2,635 pots, registered to participate in the fishery. This was the second highest recorded fleet/gear effort experienced. Managers, estimating expected catch rates based on historical performance, pre-announced a two day fishery. When the fishery closed only 26% of the available crab had been harvested. Once closed, a combination of an already expended management budget and large fleet/gear effort focused on the remaining portion of a small GHL posed an unacceptable resource threat to reopen.

Prior to the 1993 season, the Alaska Board of Fisheries instituted numerous management measures to conserve the resource and allow fair harvest sharing opportunities. These included area closures, pot limits, and season adjustments. More recent management changes further restrict pot limits to 50 for vessels over 125' and 40 for vessels under 125', change the season opening date to July 1 from August 1, and designate the fishery as superexclusive. This latter measure was rejected by the Secretary of Commerce after the season began. However, industry confusion was such that the 1993 fishery occurred as if it were a superexclusive fishery. A total of 14 vessels participated in this fishery, all of which were under 100' and all but two under 50'. This fishery lasted almost two months and 98 percent of the allowable harvest was achieved.

Two management alternatives to the status quo are considered to remedy the aforementioned problems for this unique area: superexclusive registration and exclusive registration. The current fishery is nonexclusive and any vessel can participate in it regardless of participation in other crab fisheries. The effect of superexclusive registration would be that vessels participating in this fishery could not participate in any of the other king crab fisheries managed under the federal crab FMP. Additionally, vessels fishing for king crab in Norton Sound could not fish in any other king crab fisheries off the State. This action will effectively limit participation by the most highly mobile large crab vessels resulting in a fishery consisting of smaller, less mobile vessels. Choosing exclusive registration would prevent vessels from participating

in other exclusive king crab fisheries such as Bristol Bay but would not eliminate vessels from participating in nonexclusive fisheries such as Adak and the Bering Sea. Thus, unless the Adak red king crab fishery is also designated as exclusive, there is no means of forestalling participation by much of that fleet in Norton Sound and not achieving biological and utilization goals.

The major difference between the alternatives is who will participate in the fishery: either primarily large, Bering Sea crab vessels or smaller, possibly more regionally based vessels. The effects of who participates include how long the seasons will last, how difficult monitoring will be, what the ex-vessel revenues will be, what new markets for crab might be developed, and which communities will benefit from income and services associated with the fishery. None of the alternatives considered are likely to significantly affect the quality of the human environment. Likewise, none of the alternatives would directly affect the amount of crab available for harvest, nor would other fishing activities change significantly in a manner that would affect the biological or physical environment. However, the greater the fleet/effort combination, such as that expected under exclusive registration or, most certainly under status quo, the more likely to under or over harvest the GHL, similar to pre-1993.

The large vessels that participate in the Norton Sound summer fishery gain only a small percentage of their annual crab landings from this fishery. The primary fisheries for these vessels are Tanner crab fisheries and Bristol Bay red king crab. The small vessels that participated in 1993 are different from this in that most had limited fishing activity in 1992, in part due to local herring closures, and none participated in shellfish fisheries that year.

In 1992, 27 large vessels participated and 70% of the permit holders were from Washington. Prior to 1993, all of the large vessels either process the crab onboard or delivered it to processors in the Pribilofs or Dutch Harbor. They bought few services or supplies in the Nome area. In 1993, 14 small vessels participated and 64% of the primary permit holders (captains) were from Alaska. All of the smaller vessels provisioned out of Nome and many of the fishermen were from the region or worked on vessels stored in the region. In addition, a new fresh market for summer king crab was developed and resulted in higher ex-vessel prices than that received for crab that are processed and frozen. Local residents are maintaining plans to develop this market even further in coming years. Most of the fishermen on the small vessels are expected to be unemployed if they do not participate in this fishery. The infusion of employment and income from the 1993 small vessel fishery was significant in the Nome area.

As part of the analysis, a linear model was developed to determine net revenues from the fishery after deducting major operating expenses: fuel, bait and crew shares. When the number of participants are estimated, the model estimated the season length. The model was tested by back casting the 1992 and 1993 seasons. While 14 vessels participated in 1993, several had very few days fishing and correspondingly low landings resulting in a "full time" fleet of 9 vessels. Therefore, the model was adjusted with due consideration given to actual (rather than average) participation rates, weather, and differences in vessel performance. The results were similar to the actual season lengths. Three scenarios of future fleet participation under the alternatives were modeled and the results compared. A fleet composed of 27 to 29 mostly large vessels was predicted to result in a 6 day fishery with net revenues of about \$6,250 per vessel. A fleet of 20 small vessels was expected to result in an 11 day fishery with net revenues of about \$10,500 per vessel. If revenues increase due to expanded markets for fresh crab, the small vessels' revenues would increase under either scenario. The small vessels are predicted to be more economically efficient because they use less fuel and soak their pots longer which results in correspondingly higher catch per pot.

The switch to superexclusive registration would create a management environment discouraging participation by most if not all large crab vessels and to fishing by all catcher/processors. The

management tradeoffs for this would be unbiased reporting of catch per pot, bycatch, and deadloss from the observed portion of the fleet versus accurate daily catch reporting of all harvest. The improved accuracy of a slower paced fishery allowed, and is expected to continue to allow, fuller attainment of GHLS. Better daily reporting is possible because the smaller vessels rarely hold their crab in live tanks for extended periods but deliver after each trip. In addition, a season lasting a month or less and involving no at-sea enforcement, such as that predicted for superexclusive registration, would reduce administrative and enforcement costs.

Overall, superexclusive registration is expected to result in greater benefits to the nation than either the status quo or exclusive registration. These benefits are at the cost of a transfer of participation and income from a predominately Washington based large vessel fleet to a predominately Alaskan based small vessel fleet. Norton Sound crab contributed no more than 0.7% to any of the 26 vessels yearly crab landings for 1992 and no more than 1.6% of the total for any of the C/Ps in 1990. Likewise, participation in the fishery for more than one year is low, with only one vessel in 1992 having participated in 1990. Therefore, neither individual vessels nor participants in the pre-1993 fleet were dependent on this fishery in terms of year to year participation or landings within any one year.

**D R A F T**

**AMENDMENT 2  
REVISIONS TO THE FISHERY MANAGEMENT PLAN FOR  
COMMERCIAL KING AND TANNER CRAB FISHERIES  
OF THE BERING SEA/ALEUTIAN ISLANDS**

On page 8-5, Chapter 8, Section 8.1, Category 1--Federal Management Measures Fixed by the FMP, add the following new paragraph:

**8.1.5 Superexclusive Registration in Norton Sound**

This FMP establishes the Norton Sound Section of the Northern District of the king crab fishery as a superexclusive registration area. Any vessel registered and participating in this fishery would not be able to participate in other BSAI king crab fisheries, such as Adak, Bristol Bay, Dutch Harbor, Pribilof, St. Lawrence, or St. Matthew, during that registration year. Norton Sound is the only superexclusive registration area authorized by this FMP.

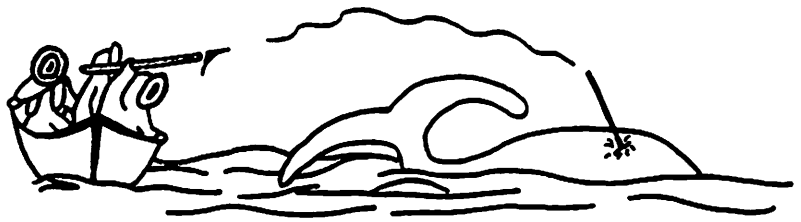
**[Note: Agenda D-1, under Alternative 2]**



**NOME ESKIMO COMMUNITY**

PO. BOX 1090  
NOME, ALASKA 99762

PHONE (907) 443-2246  
FAX (907) 443-3539



RESOLUTION 94--1-1  
OF THE GOVERNING BODY OF  
THE I.R.A. COUNCIL OF THE  
VILLAGE OF NOME

A RESOLUTION SUPPORTING THE EFFORTS OF NORTON SOUND ECONOMIC DEVELOPMENT CORPORATION (NSEDC) AND NORTON SOUND CRAB CO. (NSCC) TO PRESERVE, PROTECT, AND ENHANCE THE NORTON SOUND CRAB AND BERING STRAIT HALIBUT FISHERIES AND OTHER MATTERS.

**WHEREAS**, the Nome Eskimo Community (NEC) Council represents its nearly 2,000 members, and

**WHEREAS**, all members have a direct interest in the Norton Sound Crab and Bering Strait Halibut fisheries as well as any as yet unexplored or undeveloped fisheries in the region (e.g., shrimp, cod), and

**WHEREAS**, members' interest is based upon participation in the fishery as fishers or in processing or in sales or as a dependent upon a participant's participation, and

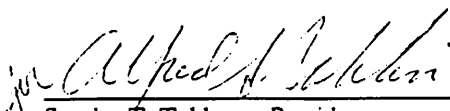
**WHEREAS**, NSEDC/NSCC are working toward continuing management of the aforesaid fisheries in a sustained-yield manner, and

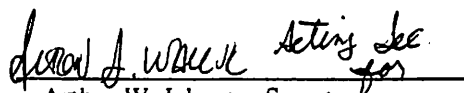
**WHEREAS**, NEC member interest and NSEDC/NSCC interests in developing, protecting, and preserving these fisheries are the same, and

**WHEREAS**, these interests support Alternative 2, of the North Pacific Fishery Management (NPFMC) Council's December 15, 1993, statement of proposal to establish the Norton Sound red king crab areas as a superexclusive registration area with pot limits, boat length limits, miles offshore limits and other limitations consistent with the goals and objectives of managing a long-term sustained yield fishery.

**NOW THEREFORE, BE IT RESOLVED**, the NEC Council endorses the efforts of and appoints NSEDC/NSCC to serve as NEC's representative at the January meetings of the North Pacific Fishery Management Council to support passage of Alternative 2, and any other resolutions or motions consistent with NEC goals and objectives as stated above.

I the undersigned President of the Village of Nome I.R.A. Council, do hereby certify that the Nome I.R.A. Council is composed of seven (7) members of whom 5 voted on the 5<sup>TH</sup> day of January, 1994, and the foregoing resolution was adopted by the vote of 5 members.

  
Sandra T. Tahbone, President  
I.R.A. COUNCIL  
NOME ESKIMO COMMUNITY

  
Arthur W. Johnson, Secretary  
I.R.A. COUNCIL  
NOME ESKIMO COMMUNITY

WALTER J. HICKEL, GOVERNOR

## DEPARTMENT OF FISH AND GAME

## BOARD OF FISHERIES

P.O. BOX 25526  
JUNEAU ALASKA 99802-5526  
PHONE: (907) 465-4110  
FAX: (907) 465-6094

January 10, 1994

Richard B. Lauber, Chairman  
North Pacific Fishery Management Council  
P.O. Box 103136  
Anchorage, AK 99510

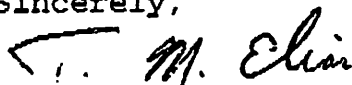
Dear Chairman Lauber:

Designating the Norton Sound king crab registration area as superexclusive under Category 1 in the Bering Sea/Aleutian Islands Crab FMP is scheduled for final action during the council meeting next week.

As the board will be in session during the council meeting, I want to take this opportunity to reconfirm the boards support for this action. In addition, I would like to emphasis the boards intent to limit the superexclusive registration area designation only to the Norton Sound fishery. Recent action by the board rejected an agenda change request asking that the all registration areas in the Bering Sea/Aleutian Islands king crab fisheries be reconsidered during our spring meeting. By rejecting the agenda change request, the board is conveying a willingness to have the council continue with their deliberations, and not influence the proposed FMP amendment change proceedings.

I am looking forward to our renewed relationship in the management of the Bering Sea/Aleutian Islands crab fisheries.

Sincerely,

Tom Elias, Chairman  
Alaska Board of Fisheriescc: Carl Rosier, Commissioner  
Laird Jones, Executive Director BOF  
BOF Members  
Clarence Pautzke, Executive Director, NPFMC  
Earl Krygier, Extended Jurisdiction  
Ken Griffin, BSAI Crab Coordinator