MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 12, 1995

ESTIMATED TIME
4 Hours

SUBJECT: Inshore-Offshore Allocations and CDQs

ACTION REQUIRED

(a) Review the "Environmental Assessment and Regulatory Impact Review (EA/RIR) for the proposed reauthorization of AMENDMENT 18/23 to the Gulf of Alaska and Bering Sea and Aleutian Islands Fishery Management Plans (Inshore-Offshore Processing Allocations and Pollock CDQ Program)," of April 7, 1995.

(b) Decide whether to approve the EA/RIR to be released for public review.

BACKGROUND

The EA/RIR for the reauthorization of the Inshore-Offshore Amendment was completed and mailed to the Council on April 7, 1995. The "Draft Problem Statement" approved in January is shown below. The Executive Summary of the EA/RIR is attached as Item C-2(a). If the Council approves the document to be released to the public for review, final action on the reauthorization may be taken in June 1995.

DRAFT PROBLEM STATEMENT

The problem to be addressed is the need to maintain stability while the Comprehensive Rationalization Program (CRP) process goes forward. The Council believes that timely development and consideration of a continuing inshore-offshore and pollock CDQ allocation may preserve stability in the groundfish industry, while clearing the way for continuing development of a CRP management system. The industry is in a different state than existed in 1990 as a consequence of many factors outside the scope of the Council process, as well as the inshore-offshore allocation. The Council intends that staff analyze the effects of rapidly reauthorizing an interim inshore-offshore allocation relative to maintaining stability in the industry during the CRP development process, as well as the consequences of not continuing the present allocation. These alternatives are appropriate as they address the problem of maintaining stability. Therefore, the focus of analysis to be done over the next few months should assist the Council to:

(1) Identify which alternative is least likely to cause further disruption and instability, and thus increase the opportunity for the Council to accomplish its longer-term goal of CRP management.

(2) Identify the future trade-offs involved for all impacted sectors presented by the two alternatives.

DRAFT FOR COUNCIL AND PUBLIC REVIEW

ENVIRONMENTAL ASSESSMENT AND REGULATORY IMPACT REVIEW

(EA/RIR)

for the proposed reauthorization of

AMENDMENT 18/23

to the

GULF OF ALASKA AND BERING SEA /ALEUTIAN ISLANDS

FISHERY MANAGEMENT PLANS

(INSHORE-OFFSHORE PROCESSING ALLOCATIONS AND POLLOCK CDQ PROGRAM)

Prepared by staff of the
North Pacific Fishery Management Council

with contributions from NMFS and State of Alaska DCRA

April 7, 1995

EXECUTIVE SUMMARY

Background and Need for Current Action

This document examines a potential reauthorization of Amendment 18/23 to the BSAI and GOA FMPs, which established the inshore-offshore processing allocations for pollock and Pacific cod and the pollock CDQ program for Western Alaska. These amendments are currently scheduled to expire at the end of 1995. The Council originally approved Amendment 18/23 in 1991 after a series of analyses of the economic and distributional impacts, though the BSAI pollock allocation was disapproved by the Secretary of Commerce (SOC) in 1992. After further analyses, the Council submitted a revised Amendment 18 which proposed allocation percentages different than the original submittal. This was approved by the SOC after additional revisions were made to the allocation percentages by the SOC. The final Amendment 18/23 contained the following primary elements:

1. For the GOA, 100% of pollock would be reserved for vessels delivering to inshore plants, and 90% of Pacific cod would be reserved for vessels delivering to inshore plants.

2. For the BSAI, 35% of the pollock is reserved for inshore for all three years.

3. A catcher vessel operational area which would reserve a certain geographic area, for a specified time, for inshore harvesters.

4. A 7.5% allocation of the BSAI pollock quota for Western Alaska community development (CDQs).

5. A specific list of alternatives for "comprehensive rationalization" of the fisheries; within that list were traditional management tools, limited entry programs including IFQ allocations, and continuation of the inshore-offshore allocation. This was tied to the December 31, 1995 sunset date with the stipulation that the inshore-offshore allocation would expire at that time if the SOC had not approved a more comprehensive management program for these fisheries.

At about the same time, the Council embarked on an initiative to develop more comprehensive, long-term management programs to address the overcapitalization and allocations problems facing the industry, not only with regard to inshore-offshore conflicts, but to the overall groundfish and crab fisheries off Alaska. This Comprehensive Rationalization Plan (CRP) would examine a myriad of alternative management approaches, but focused on some type of limited entry or IFQ program. The current focus is on a License Limitation program, followed by some type of IFQ program for the groundfish and crab fisheries which would also address the processing allocative issues for which Amendment 18/23 was developed. The Council is scheduled to take final action on some type of License Limitation program in April 1995, followed by further development of more comprehensive management programs.

A comprehensive management regime, which would address the inshore-offshore allocation issues, will likely take two to three more years to actually be in place. In order to maintain stability between industry sectors and to facilitate further development of more comprehensive management regimes, the Council is considering an extension of Amendment 18/23 for an additional three years, through 1998. This would also allow for realization of the development goals and objectives of the pollock CDQ program. The alternatives currently being considered are:

Alternative 1: No Action - the current inshore-offshore allocation and the pollock CDQ program would expire at the end of 1995.

Alternative 2: Continuation of the current program, as is, for a period of three additional years. This would include the pollock CDQ program as an unseverable element of the overall package.

The Council has also indicated a desire to reexamine specific provisions of the Catcher Vessel Operational Area (CVOA) and the definition of inshore and offshore relative to freezer longliners.

Organization of this Document

Chapter 1 of the document provides details on the background and development of Amendment 18/23, and the process leading to the current consideration of reauthorization. Chapter 2 contains a review of the previous analyses conducted relative to Amendment 18/23, with the primary results of those analyses, and then describes the methodological approach used for the current analysis.

Chapters 3 and 4 are devoted to a description of what has actually occurred during the past three years with the inshore-offshore allocation in place. This included details on harvests of pollock and Pacific cod, processing activities, and activities within the CVOA. Chapter 5 provides projections of what would occur without the reauthorization of Amendment 18/23 while Chapter 6 provides projections with reauthorization of that amendment. Chapter 7 then makes comparisons of these projected outcomes to what was occurring in the base case described in the previous chapters. Overall findings and conclusions regarding the basic allocation are presented in Chapter 7.

Community Impacts are discussed in Chapter 8, with an examination of the pollock CDQ program provided in Chapter 9.

Findings from Previous Analyses

Original SEIS from March 1992

The original SEIS prepared by Council staff focused on input/output modeling which projected distributional changes in employment and income at the community/regional level. This analysis indicated that losses in employment and income for the Pacific Northwest induced by the inshore-offshore allocations analyzed would be more than offset by gains in direct income to Alaska regional economies. The magnitude of this effect depends on the specific allocation alternative chosen, but holds true across all alternatives to some degree. The Preferred Alternative of the Council was a three year phase-in of allocation percentages (35/65, 40/60, and 45/55 inshore-offshore). Combining offshore and inshore regional impacts yielded a net gain in direct income of around $9 million in the first year of the program, based on the projections in that analysis.

Cost-Benefit Study from April 1992

As part of the Secretarial review process, NMFS economist conducted a cost-benefit oriented analysis which focused on overall net benefits (or losses) to the nation which would result from the inshore-offshore analysis. The basic methodology of this analysis was to measure producer surplus for each sector and then to predict the relative changes in that producer surplus for each sector—inshore and offshore. This involved estimation, for each sector, of relative harvest percentages, product mixes, recovery rates, and prices for fish. From this estimate total revenues are projected, then subtracted from total estimated costs of production, to arrive at net benefits for each sector. The difference between the two (assuming one is positive and one is negative) is the overall net benefit to the nation.

That analysis projected a net loss to the nation of $181 million over the three year life of the allocation. Gains to the inshore sector were outweighed by losses to the offshore sector by that amount. Assumptions and

parameters used in this analysis were the subject of intense disagreement and debate, and the analysis was largely silent on the issues of distributional and community impacts. The analysis was part of the basis of Secretarial review, and subsequent disapproval of the BSAI pollock allocation (the GOA allocations were approved as well as the CDQ program for the BSAI).

Supplemental Analysis from September 1992

Following Secretarial disapproval, a final, Supplemental Analysis was jointly prepared by NMFS economists and Council staff. This analysis combined a cost-benefit assessment with an income/distributional analysis. The analysis also contained a detailed examination of the CVOA. Alternatives examined included the three year phase-in as described above and a more straightforward 30/70 split over the entire three years. The Council finally approved and forwarded to the Secretary an allocation of 35/65, 37.5/62.5, 37.5/62.5. The final analysis projected the following major findings for the Preferred Alternative:

- Cost-benefit analyses projected an overall loss the nation of $33.6 to $37.6 million over the three years of the allocation, depending on which set of parameters was used in the models. Sensitivity analysis indicated that, with certain parameters in the model, these projected losses could be reduced substantially, or could result in a net gain to the nation of $11 million. Essentially, the projections of net benefits/(losses) covered a range of possibility, from positive to negative depending on parameters and assumptions used, with the expected value in the negative.

- Distributional income analyses also projected an overall net loss, in terms of direct income at the U.S. level, with offshore losses outweighing gains to the inshore sectors. The estimated loss was $20 to $28 million over the three year allocation (Preferred Alternative), though a potential overall gain of $11 million could be projected using model parameters based on public testimony to the Council.

- The Social Impact Assessment (SIA) which accompanied this analysis concluded that benefits to Alaskan coastal communities from the proposed allocation would be immediate and direct, while corresponding losses to Pacific Northwest communities would be less direct and less immediate. Overall, the study concluded that a given level of benefits accruing to Alaskan coastal communities was proportionally more significant when compared to regions like the Pacific Northwest where alternative industries and employment existed. the SIA noted that continuation of status quo (no inshore-offshore allocation) would have immediate and direct negative consequences for economic development and social stability in Alaskan coastal communities who rely heavily on fish harvesting and processing.

Current Analysis - Scope and Methods

The current analysis of the proposed reauthorization of Amendment 18/23 does not attempt to respade the previous cost-benefit or distributional analyses; rather, it examines the current state of the fisheries and identifies any significant changes which have occurred which would affect the overall findings of the previous analyses. Any directional changes, and their likely magnitudes, from the original analyses are identified in this iteration. Projections are made regarding the likely distributions of fishing and processing activities under both current alternatives—expiration of the allocation or reauthorization. Using the 1993 and 1994 fisheries as a base case for comparison, impacts of these projections are offered.

This analysis also examines additional issues which have been identified by the Council in the proposed reauthorization. In addition to potential preemption, these include stability within the industry, future trade-offs for affected industry sectors, and the potential impacts on the Council's overall CRP development. The pollock CDQ program is examined from the perspective of the current status of each of the six CDQ organizations' development, relative to the overall goals and objectives of the CDQ program created by the Council.

Base Case Description of the Fisheries, CPUE, Bycatch, and CVOA Activities

Chapter 3 contains data and discussion of the distribution (size and spatial) of walleye pollock in the eastern Bering Sea, the distribution (temporal and spatial) of the pollock fishery, and the impact that the Catcher Vessel Operation Area (CVOA) has had and may continue to have on the fishery and other members of the eastern Bering Sea ecosystem (marine mammals). Chapter 3 is divided into the following sections:

I. Eastern Bering Sea Pollock Natural History and Recent Stock Assessments

II. Pollock Populations and Fisheries (1990-94)
   A. Size and Biomass Distribution of Pollock from Surveys and Fisheries
   B. Bycatch of Prohibited Species (Surveys and Fishery) and Fishery Pollock CPUE within and outside the CVOA

III. Effects of CVOA on Marine Mammals
   A. Steller Sea lion
   B. Pacific harbor seals
   C. Northern fur seal
   D. Killer whales
   E. Gray whales
   F. Pollock as prey, Fishery Exploitation Rates (1990-94) and Impacts of the CVOA

From 1990-94, the exploitable (30+ cm in length) pollock population in the eastern Bering Sea changed from one composed of several strong year-classes (spawned in 1978, 1982 and 1984) to one dominated by a single year-class (1989). Furthermore, there has been a shift in exploitable pollock biomass (and the fishery) to the southeast (toward the CVOA), due to the distribution of the 1989 year-class. While surveys in the last 5 years continue to show that commercial-sized pollock are widely distributed throughout the southeastern Bering Sea, both inside and outside of the CVOA, the distribution of exploitable pollock during the summer can change from year to year, which may cause the distribution of the fishery and areal CPUEs to change.

The fishery harvests pollock disproportionately to its areal biomass distribution. During the 1990-94 B-seasons, harvest rates of exploitable pollock in the CVOA ranged from 22-50%, rates which were much higher than in Areas 51 and 52 outside of the CVOA (combined ranges of 1-14%). Furthermore, A-season pollock removals have also been concentrated in the CVOA.

Survey and fishery data have shown that bycatch rates of :

- herring and salmon have been higher inside the CVOA than outside, particularly from July-September;
- herring have been higher outside the CVOA from October-December;
- halibut by bottom trawls have been higher inside the CVOA than outside;
- red king crab have been higher outside the CVOA; and
- bairdi Tanner crab have been either higher or lower inside the CVOA than outside, depending on the fishery data set being analyzed.

Recent information on distribution of the crab species suggests that red king crab bycatch rates should be lower, and Tanner crab bycatch rates should be higher inside the CVOA than outside in areas frequented by the pollock fishery.

Pollock are an important prey for marine mammals and birds in the eastern Bering Sea. While most pollock are eaten as juveniles, there is considerable overlap in the size distributions of pollock taken by the fishery and those

eaten by Steller sea lions. The spatial and temporal concentration of the pollock fishery is contrary to the management philosophy utilized for the pollock fishery in the Gulf of Alaska to minimize the likelihood of creation of localized depletions of marine mammal (particularly Steller Sea lion) prey. Due to the distribution of the dominant 1989 year-class and the apparent desire of the fleet to avoid smaller members of the cohort, effort shifted from areas west of 170° W to the southeast (including a foraging area designated as Steller sea lion critical habitat under the ESA) in 1993-94. However, if the CVOA had not excluded the offshore fleet during these 'B' seasons, it is likely that harvest rates and removals from the CVOA and critical habitat would have been greater than they were.

Base Case Assessment of Economic Indices

Chapter 4 describes the status of the fisheries under the inshore-offshore allocations from 1992-1994, with a focus on economic indices related harvesting and processing of GOA pollock and P. cod and BSAI pollock. A description of fish prices used in the analysis, and status and trends of these prices is provided. Prices for major pollock products, other than roe, declined significantly from 1991 and 1992 levels to 1994 levels for both sectors. A description of major pollock and P. cod processors, by various classes, is also provided in Chapter 4. In order to describe actual activities which occurred over last three years, a detailed examination of the GOA P. cod, GOA pollock, and BSAI pollock fisheries is provided. The results of this examination are then compared to results as projected in the original analyses of inshore /offshore. Major findings from this examination are summarized below:

GOA Pacific Cod Fisheries

- Despite the 10% allocation of P. cod offshore, only about 3% has been taken by that sector in 1993 and 1994.
- About 10% of the overall GOA quota in 1993 and 1994 was taken by longline catcher/processors designated to the inshore category.
- Production for the inshore sector has shifted to higher priced fillets, while falling prices overall and reduced harvest levels have kept revenues per mt constrained.
- Revenues per mt decreased relatively more for the offshore sector, though some of this may be attributable to mandatory discarding under the rules of the allocations.

GOA Pollock Fisheries

- Total offshore sector harvest of pollock was about 1% in 1993 and 1994; the processing locations for GOA pollock have shifted significantly to Kodiak and Sand Point/King Cove locations (from Dutch Harbor) from a combined 65% in 1991 to 85% in 1994.
- Processed product form has shifted substantially over the period 1991-1994; more emphasis was placed on surimi in 1992, then shifted back to fillets and roe by 1994. Roe prices have risen and remained at high levels through 1994, while both fillet and surimi prices have dropped dramatically, with a relatively higher price decrease in surimi.
- Total product utilization by the inshore sector is higher than offshore sector utilization (21-22% of total weight for the inshore sector, over all years vs 16% for the offshore sector in 1991).
- By 1994, roe comprises nearly 18% of total gross revenues for the inshore sector, with fillets accounting for 49% and surimi for just over 29%.

- Gross revenue per mt has fallen from 1991 to 1994 for the inshore sector, but not by much considering product price reductions. Changes in product mix combined with differential prices for each product have contributed to relative 'maintenance' of revenues per mt.

- Lower revenues per mt for the offshore sector (based only on 1991 data) may indicate that total revenues generated from the pollock fisheries would have been lower without the implementation of Amendment 18/23.

BSAI Pollock Fisheries

- Price trends were similar to GOA with surimi and fillets decreasing significantly and roe maintaining high levels. Both sectors have increased surimi production relative to other product forms, while fillet and roe production as a percentage of overall production has remained fairly constant, with the exception of roe production for the offshore sector which has dropped as a percentage of overall production.

- Lower prices have decreased gross revenues for both sectors; gross revenues per mt of catch have also dropped for both sectors, though differentially. The inshore sector revenue per mt decreased 11.3% from 1991 to 1994 while the offshore sector revenue per mt decreased 32.6% over the same period.

- Compared to the projected impacts of inshore-offshore as modeled in the original analyses, these changes indicate that projected impacts (net losses to the nation) were likely overstated, and that actual net losses are likely much less. The current analysis indicates that the range of expected economic impacts would be shifted more to the neutral point.

Projections with Expiration of Amendment 18/23

Chapter 5 projects probable implications of Alternative 1, the Expiration of the Inshore-Offshore Amendments. The chapter focuses on projection of the harvest splits and potential economic impacts which might occur in the BSAI pollock fishery without the inshore-offshore allocation. It goes on to a more qualitative discussion of possible outcomes in the GOA pollock and Pacific cod fisheries.

BSAI Pollock Fishery Under Alternative 1

Seasonal averages and maximum catches were used to estimate harvest splits under Alternative 1. These two different methodologies projected inshore harvests of 29.15% and 25.46%, respectively. It appeared that using the seasonal averages predicted the 1991 harvest split more accurately than did the seasonal maximums. Using the projected harvest splits along with total product to total catch ratios (the "Utilization Rate"), product mixes and prices assumed for the 1994 fisheries, we estimated gross revenues. The results showed a probable decline in overall gross revenues accruing to the BSAI pollock fisheries under Alternative 1 from $515 million estimated for the 1994 fishery to $511 million using the seasonal averages or $509 million using the season maximums. These declines resulted from a smaller amount of total product sold at overall lower prices.

It was concluded that Alternative 1 is less likely to provide significant gains in net benefits to the Nation than might have been supposed in the Supplemental Analysis, and would likely have a destabilizing effect on the inshore sector. Further, the projected harvest splits using the seasonal average approach, indicated that the overall shift in harvest to the inshore sector from the offshore sector, which was predicted to occur under the inshore-offshore allocation in the Supplemental Analysis, were likely overstated. This implies that the estimated net losses to the Nation resulting from Amendment 18 in the Supplemental Analysis were also overstated.

GOA Pollock Fishery Under Alternative 1

Estimates of impacts of Alternative 1 on the GOA pollock fishery were qualitative. In general it was concluded that under the Alternative offshore catcher-processors would likely enter the GOA pollock fisheries in the second and third quarter apportions, causing shorter seasons and destabilizing the current participants.

GOA Pacific Cod Fishery Under Alternative 1

Estimates of impacts of Alternative 1 on the GOA Pacific cod fishery were also somewhat qualitative. In general it was concluded that freezer longliners would benefit significantly under the Alternative. It appears that they would be able to enter the GOA Pacific cod fishery until the TAC was reached, and then continue on into the BSAI to fish under the guaranteed fixed gear TAC. It is also possible that some offshore catcher-processors would participate in the GOA Pacific cod fisheries. Both of these conclusions would lead to shorter seasons and would likely be destabilizing for the current participants.

Projections with Reauthorization of Amendment 18/23

Chapter 6 contains the projections of impacts of Alternative 2 - reauthorization of Amendment 18/23 for an additional three years. Projections of harvest/processing activity are straightforward for this alterative - it would be 35/65 for the BSAI pollock, GOA pollock would be 100% inshore, and GOA P. cod would be 90% inshore. Patterns of harvesting and processing are expected to be relatively unchanged from the base case; i.e., the 1993 and 1994 fisheries. GOA pollock stocks are relatively small, decreasing, and quarterly allocated. Alternative 2 would facilitate inseason management of the pollock stocks and avoid quota overruns by limiting the harvest of pollock to smaller, lower capacity shore based trawlers. If the Council chooses Alternative 2, other considerations include the CVOA and the definition of 'inshore' relative to freezer/longliners. Major findings from the analysis are presented below:

CVOA Considerations

- Shore based vessels are more dependent on the CVOA (and any nearer shore fisheries) than the offshore sector.
- Pollock are harvested disproportional to their areal distribution; harvest rates of pollock are concentrated in the CVOA in the 'A' season, and harvest rates are much higher inside the CVOA than outside in the 'B' season.
- Allowing offshore sector vessels inside the CVOA in the 'B' season will likely exacerbate the disproportionate harvest rates relative to pollock distribution.
- Variation from year to year is exhibited relative to average size of pollock inside and outside the CVOA, with average size rates being similar; percentage of fish > 30 cm (commercially viable size) is higher inside the CVOA than outside.
- Overall CPUEs of exploitable fish have been similar overall both inside and outside the CVOA, so exclusion from the CVOA should pose no significant impediments to offshore sector fishing operations. Operating costs, however, could be higher outside the CVOA.
- Increased harvest rates in the CVOA could adversely affect marine mammal critical habitat areas in the CVOA if the restrictions are relaxed.

- Bycatch rates of salmon and herring are higher inside the CVOA during the 'B' season time period. Additional effort could result in higher overall bycatch of these species.

Cost-Benefit Implications

A reauthorization of Amendment 18/23 would be expected to result in the same general cost-benefit impacts as projected in the original Supplementary Analysis from 1992, as adjusted by findings from this current analysis. Wholesale, quantitative reassessment has not been conducted in this analysis, but changes in primary model parameters have been identified which may directionally affect the original findings. From Chapter 4, we saw that the expected net losses to the nation were likely overstated in the original analysis, and that changes in the actual fisheries relative to assumptions used in that analysis would tend to move the expected impacts more towards neutral. Magnitudes of that directional tendency are not quantitatively estimated.

Net cost-benefit impacts of continuing the allocations for an additional three years may still fall into the negative side of the range of possible outcomes; net gains will still accrue to the inshore sector, at the expense of losses to the offshore sector. However, given that the original analysis projected a range from $37 million loss to $11 million gain (depending on model parameters used), it is likely that the impact of an additional three-year allocation more closely approaches neutrality, in terms of net benefits to the nation.

Distributional Impacts

The methodologies for projecting distributional changes in employment and income, at a community/regional level, are directly dependent on the revenues generated from the fisheries for each sector. The original analysis (Supplemental analysis from September 1992) predicted net losses in direct income of $20 -$28 million, depending on model parameters used, and could project a gain of $11 million using selected model parameters. In that analysis benefits to inshore sectors were more than outweighed by losses to the offshore sector. Based on information presented in Chapter 4, fish prices and product mixes have changed to the point that overall revenues from the fisheries for both sectors are significantly reduced, relative to the projections made in the original analysis . The bottom line effect of this is to dampen the magnitude of any distributional effects overall; i.e., drive them towards the zero, or neutral point, keeping in mind that distributional effects are a function of both income from fisheries and employment from fisheries. Previous projections indicated a substantial loss of employment for the Pacific Northwest communities, and a gain for Alaska based communities. There is no information contained in this analysis to indicate that those employment projections were inaccurate.

The reductions in direct income from the fisheries for both sectors tend to reduce the aggregate income effects when compared to the original analyses, though we still expect gains to the inshore sector and losses to the offshore sector overall, when combined with employment effects. It is important to reiterate, however, that even though the trend is more towards a more neutral impact in aggregate, some distributional impacts will certainly still be expected, and any level of impacts to Alaska coastal economies are far more significant than a similar level of impacts to Pacific Northwest economies. This is a consistent finding in both the distributional analyses previously conducted and the Social Impact Assessment previously conducted. Therefore, although net negative impacts in direct income may still be expected, these impacts are reduced from projections in the original analysis. These impacts for 1996-1998, under the three year extension, would be similar to the impacts actually occurring in 1993-1995.

Stability Implications

Compared to the base case (the 1993 and 1994 fisheries), continuation of the inshore-offshore allocations as they now exist would result in the least change, relative to that base case. Stability is epitomized by lack of change in a given industry or between sectors in a given industry. The existing allocations provide a reasonable assurance to each industry sector involved regarding the amount of fish for harvesting and processing. Business

planning is largely affected by these allocations for both inshore and offshore processors and harvesting vessels which deliver to them. The continuation of these allocations for an additional three years would maintain the relationships between these sectors as they have developed over the past three years. The stability which has been established between these various industry sectors may not guarantee survival of entities within these sectors, but may be crucial to the successful fruition of the CRP program over the next three years. A stable environment in the fisheries has been cited by the Council as critical to successful CRP development. Indeed, the disruption of existing distributions of harvesting and processing of pollock and P. cod, and the business relationships based on those distributions, could have serious and adverse implications for successful CRP development.

Allowing the inshore-offshore allocations to expire would result in a projected "reallocation" of about 6% of the overall pollock quota in the BSAI; i.e., the split between inshore and offshore processing would be about 29/71, similar to pre-inshore offshore splits, as opposed to the current 35/65. Because of this projected change, the reauthorization of Amendment 18/23 holds implications for future tradeoffs between industry sectors. Under the reauthorization, the offshore sector would be giving up about 6% of pollock harvests/processing which it would enjoy if the allocations were allowed to expire. Conversely, the inshore sector enjoys about a 6% "gain" under the reauthorization relative to expiration of the allocations. From the offshore sector's perspective, this 6% relative loss represents a tradeoff between increased revenues and some amount of upheaval in the industry which may result if the allocations are allowed to expire. Continuation of the allocations may provide the stable operating environment necessary for eventual implementation of CRP programs such as IFQs, something the offshore sector generally has been striving towards.

Inshore vs Offshore Definition of Freezer/Longliners

In the original Amendment 18/23, the designation of freezer/longliners as inshore or offshore was discussed, particularly relative to the allocation of Pacific cod in the GOA. Initially the Council had designated all freezer/longliners as "inshore." In the final decision, the Council altered this definition such that all catcher/processors (both trawl and longline) would be designated as either onshore or offshore depending on vessel size and average production. If a vessel was less than 125' in length, and processed less than 18 mt per day, round weight equivalent, it would be classified as "inshore." The rationale for this change was that the impacts on preemption issues were based more on overall vessel capacity as opposed to gear type, and further that the smaller catcher/processors which would be fishing against the inshore quota do contribute to shore based economies, even though they may not deliver catch to onshore processing plants. Based on the information available at that time, it was estimated that two trawl and ten fixed gear catcher/processors would receive the inshore designation. Based on harvest shares by sector at that time, it was estimated that this designation would, in effect, reclassify 5% of the GOA Pacific cod from offshore to inshore.

It has been suggested that all freezer/longliners should be allowed to fish against the inshore quota in the GOA. The analysis provides the following major findings relevant to this issue:

- 10% of the P. cod quota in 1993 and 1994 was taken by catcher/processors designated as 'inshore'; nearly all of this was by freezer/longliners.

- Of the total quota taken by hook and line gear, 58% is by freezer/longliners designated as inshore catcher/processors.

- Based on examination of catch rates by freezer/longliners currently excluded from the inshore GOA P. cod quota, allowing these vessel to fish on that quota could reduce the GOA season by as much as 40% based on current quotas. About 40% less of the overall quota would find its way to onshore plants.

- The group of vessels which would likely enter the GOA P. cod fisheries could end up taking 40% of the total GOA quota, and up to 90% of the total taken by all hook and line vessels.

- Given increased quotas in the GOA for 1995, the season length would remain nearly as long and deliveries to onshore plants would only be minimally reduced. Conversely, seasons could lengthen considerably if these vessel continue to be excluded.

Community Impacts

Although the distributional, income based analyses previously conducted (and described above) are based on economic activity at the community/regional level, an additional, more qualitative examination of community impacts is provided in this analysis. A review of the previous SIA from 1992, which focused on the communities of St. Paul, Dutch Harbor, Sand Point/King Cove, Kodiak, Newport, and Bellingham/Seattle, indicates that the smaller Alaska communities, which are fundamentally dependent on the groundfish fisheries, exhibit the most variability and vulnerability to socially disruptive forces. Inshore allocations were determined to provide the greatest benefit to Alaskan coastal communities and afford them the greatest opportunities for development and growth, while the only community negatively affected would be Ballard/Seattle. The absence of an allocation would very likely impact coastal Alaskan communities negatively, both economically and socially.

Immediate and direct positive impacts would be expected by Alaskan communities with the allocation, partially offset by negative impacts to Pacific Northwest employment and income, though the latter would be more easily absorbed by the more diverse economies of that region. Since 1992, additional infrastructures have developed in Alaskan coastal communities, partially in response to the guaranteed allocations from Amendment 18/23. Given the current status of the fisheries, and these communities which rely on fishing and processing, allowing the inshore-offshore allocations to expire, in the absence of alternative management remedies, would likely result in at least the same level of impacts as previously projected. Impacts at this time could be exacerbated beyond those previously predicted due to the additional infrastructures and the ability of these communities to utilize the current allocations.

Pollock CDQ Program

Chapter Nine of this analysis provides a separate examination of the pollock CDQ program. This examination relies partially on a report from the State of Alaska Department of Community and Regional Affairs which examines the relative attainment of overall goals and objectives of each of the six CDQ organizations receiving pollock allocations. While many of the individual projects have been completed or are in significant stages of development (61% of initial, critical projects are complete), many of the individual projects will not be completed if the program is allowed to expire at the end of 1995. Overall objectives of bringing these communities into fisheries self-sufficiency will be seriously jeopardized, and investments to date will be nullified, resulting in economic losses attributable to the current program.

Two fundamental questions formed the premise of the examination: (1) whether the development projects and initiatives underway now can be brought to fruition without a continuation of the allocation, and (2) once these development projects are completed, can they be sustained in the absence of a direct allocation of pollock? The answer to the first question seems apparent from the information at hand - the individual projects, as well as the overall development objectives of the program, will not be realized if the program sunsets in 1995. It does not appear to be a valid expectation that the program could transform the region in the short two and one-half years of existence.

The second question is more difficult to answer at this time. The future viability of the program in the absence of a direct allocation (even if infrastructures are fully developed) remains a critical question. Future development projects of the CDQ groups may hinge on the intent of the Council with regard to this question. Planning and development by these groups may be quite different without the expectation of a direct allocation in the future than they would be if a direct allocation is expected, either through the current mechanism or through some type of inclusion in the overall CRP process.

A Summary Review

of

Policy Measures

and

Relevant Performance Indicators

As Applied to the

North Pacific Inshore/Offshore Allocation

April 1995

Prepared By:
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Overview of Report

The inshore/offshore allocation impacts the largest commercial groundfish fishery under the North Pacific Fishery Management Council's (Council) jurisdiction. The pollock harvest was 70% of the total groundfish catch in the commercial fisheries off Alaska in 1993 (NMFS 1994). As such, that species constitutes a large source of the financial wealth from these waters accruing to commercial fishers and processors. In addition, pollock harvests are a key contributor to the economic well-being of various communities and the pollock stocks are an integral part of the underlying marine ecosystems.

Any policy that redirects the allocation of these stocks will generate winners and losers (i.e. individuals or industry sectors that are relatively better off or worse off than before the allocation with regards to their financial health and future opportunities). An analysis of a policy action should then provide a clear description of what the objectives are and attempt to evaluate all significant consequences and tradeoffs necessary to achieve the stated objectives. The objective of this proposed action is to preserve short-term overall stability and viability for the parties affected while these fisheries are placed within the framework and goals of the Council's Comprehensive Rationalization management system. As an allocation is essentially an economic issue, the standard economic criteria of ***efficiency*** and ***equity*** are used to measure the overall effectiveness and consequences of the two alternatives.

Each primary category (inshore processor, offshore processor, catcher fleet, local community, government, and final markets) is described and characterized. Its performance in recent years is then evaluated against a variety of indicators in order to assess the likely effects of any change arising from this proposed policy action.

It has become standard practice to conduct partial analyses where all other factors are assumed to be held constant. This makes for an easier comparison of results where the only assumed change is from the alternate allocations. However, the relative performance and health of each primary category is influenced by a whole host of factors beyond the allocative split of pollock (and P. cod) between inshore and offshore processors. Some of the primary influences (e.g. interest rates, exchange rates, overall performance of the economy, related fisheries, intertwined regulations) are discussed in order to provide a mechanism to capture the cumulative and interdependent effects of their influences and the allocative split.

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Purpose of this Document

The North Pacific Fishery Management Council (Council) is currently reviewing whether to extend or let expire an existing inshore-offshore processing allocation of pollock in the Bering Sea/Aleutian Islands Management Area (BS/AI) and pollock and Pacific cod in the Gulf of Alaska (GOA). Given the value of the fisheries involved and the number of individuals who will be impacted by the decision, the Council and NMFS can expect to receive much public testimony as input, in addition to the analytical document that the Council's staff has prepared, to assist in the decision-making process.

There are so many relevant elements that need to be addressed when attempting a comprehensive analysis of an industry or a fishery and it is easy to lose track of all the pieces. The intent of this document is to expand the context within which to discuss the implications. Given that the pollock stock represents such a large proportion of the groundfish allowable catch, that most operators produce joint products, and the dynamic nature of these fisheries, the appropriate scope for addressing this issue is within the broader question of what is the optimal management for these stocks. Regulations express intent. Regulations have many impacts on society; with a primary one often being the redirection of capital flows, which in the process affects employment and investment opportunities. Even if the original intent of the proposed action is not to transfer economic opportunities, that is often an unintended consequence of a regulation. Either action (extending the regulation or letting it expire) carries with it risks of disrupting a component of society. The primary questions we need to answer are: 1) with and without the extension of the existing Inshore/Offshore allocation, what will be the consequences to all relevant parties; 2) are we, as society, willing to accept the trade-offs (costs) of whichever our preferred choice is; and 3) what criteria can we use to evaluate the necessary trade-offs? This report outlines some of the measures used to evaluate the relative performance of the various primary sectors that have been impacted by the current allocation and identifies the likely consequences of this allocation.

Standard Economic Criteria

Economics is the science of studying the **efficient** allocation of scarce resources. As the question in front of the Council is essentially an allocation issue, then economic analysis should provide a functional starting point for rationally discussing conflicts among competing demands. "Applied welfare economics is the fruition of microeconomics. It deals with costs and benefits of just about anything...."[i] but basically focuses on how society's overall welfare can be improved. Welfare measurement can contribute to the resolution of a policy debate in two ways: 1) net economic trade-offs are made explicit by identifying the relevant costs and benefits; and 2) equity trade-offs are made explicit by determining whether transfers of welfare are likely to occur and by identifying the groups that will be most affected. It is probably worthwhile to briefly review what is meant by those two principally accepted goals of an economic allocation: **efficiency** and **equity**.

Efficiency

If a redistribution of resources allows society to gain more output for the same level of inputs or conversely, to produce the same level of output, using fewer resources, then it is considered to be more efficient. The efficiency of a proposed action is usually captured by some sort of benefit-cost analysis (BCA). Formal BCA is an attempt to identify and express in dollar terms all of the effects of proposed government policies or projects. Although conceived nearly 150 years ago by the French engineer Jules Dupuit, BCA saw its first widespread use in the evaluation of federal water projects in the United States in the late 1930s.[ii]

Although one can do a financial efficiency analysis, it is important to recognize that these two measures are not necessarily equivalent. Financial analysis is based on the concept of private profit, which can differ from net economic benefit. Starting with the "new welfare economics" of the 1940s and especially Hotelling's paper on public utility pricing, it became recognized that the only appropriate welfare criterion is maximization of aggregate consumers' plus producers' surplus.[iii]

Among the many guidelines for fishery management plans is the requirement to analyze the extent to which net benefits are affected. In addition, under Executive Order 12044 issued by President Carter, Executive Order 12291 issued by President Reagan, and Executive Order 12866 issued by President Clinton, all federal regulatory agencies must make an effort to quantify as many of the benefits and costs of their proposed actions as possible.[iv] Often the amount of available data has not been sufficient to conduct a rigorous benefit-cost analysis. Nonetheless, it is important to identify all benefits and costs, and provide some qualified measure.

If enough data were available, the preferred technique would be to estimate a market model of the fisheries. Projected shifts due to the proposed management change could then be simulated and the difference in the total of producer and consumer surplus would then be measured. The amount of data necessary in order to estimate the functional relationships and projected shifts for a policy proposal, such as this, is rather large. NMFS conducted a fairly quantitative analysis for the original inshore-offshore allocation.

Overall, a policy is attractive if the net economic gains (benefits minus the costs) are positive. A change in price is never either good or bad. From a closed system perspective, those gaining from a project with positive net benefits could compensate those made worse off and still be better off themselves. In practice, of course, this seldom occurs. Therefore, even the most efficient policies will create some losers. However, if the benefit-cost criterion is applied consistently, then most people will probably gain more than they lose over the course of many policy decisions, which is why economists adopt it as a general guide to policy.

Under strict BCA, costs are always costs regardless of who bears them. Only individuals matter and all individuals matter equally, with the strength of their preferences measured by their willingness to pay. Following the theory would ideally lead us to a global

accounting stance for this issue. In other words, the area over which benefits and costs are to be counted would be specified as wherever they might appear in the world. In practice, however, specification of the accounting stance is one of the two major issues dominating the design of benefit-cost analyses. A BCA done under different accounting stances (regional, national, and global) will yield different results. The accounting stance most often taken for federal resource issues is national. Net national benefits are calculated with any benefits or costs accruing outside of our borders being ignored. For example, consumer surplus was not calculated in the follow-up BCA done for the original inshore-offshore analysis. This omission was considered okay as "gains and losses to nondomestic consumers and producers are not considered in the decision."[v] This modification of the efficiency criterion follows from the assumption that is only the welfare of U.S. citizens that should determine our policy.

Using net national benefits as the efficiency criterion in fishery regulations, the United States basically assigns a zero weight to costs and benefits that accrue outside our borders. Given the increasing interdependence of the global economy, this may not remain a wise policy decision. Ignoring impacts on other nations has proved repeatedly in other arenas to be shortsighted and can result in later, costly attempts to ameliorate the international impacts. A prime example is the Welton-Mohawk Irrigation Project in Arizona which substantially increased the salinity of the Colorado River at a point just before it flows into Mexico. The resulting damage to Mexican agriculture was not counted in the original calculation of the project. The political repercussions were so strong that Presidents Nixon and Echevarria ended up meeting to negotiate a solution, one that turned out to be extremely costly and inefficient for the U.S. [vi]

However the point remains, this society (and others) commonly (implicitly or explicitly) assign different weights to various segments of the population or regions. Too strict an application of BCA could lead to decisions then that would not necessarily reflect the true values of that society. For example, use of a strict benefit cost rule as a sole guide to policy would advocate enriching a Rockerfeller by $1,000 at the expense of $900 to a struggling single parent. Out of concern for results like that, we have avoided relying on efficiency as an overriding decision-making tool. Efficiency cannot be the sole criterion for determining policy because while it is true that efficiency is always good; that is not the same as arguing that inefficiency is always bad. This nation has consistently shown itself ready to trade-off some efficiency in order to achieve a more equitable arrangement.

Equity

Equity or fairness is the other yardstick commonly applied to policy decisions. A particular policy can be very efficient but not very equitable in terms of how the income, employment, etc are distributed. In the real world, any meaningful policy proposal must entail a huge number of trade-offs involving innumerable gains and losses to innumerable people." [vii] Therefore to truly evaluate the optimality of an allocation, one needs some normative criteria. To favor a redistribution would mean moving to something perceived as being more equitable.

"As the empirical vehicle for welfare economics, benefit-cost analysis ostensibly guides society toward [a] Pareto optimal point. Unfortunately, this move is often confused--by virtually all "policy makers" and not a few economists--with being analogous to socially optimal. We seem to require constant reminding that a move to a Pareto optimal point may not involve a Pareto improvement, since some individuals will be made worse off, and others better off. The essence of public choice is the shifting of comparative advantages; it is the restructuring of rights and the exposure to the rights of others."[viii] These collective choices must be made before a valuation can occur. For example, determining the efficient use of child labor in the U S was made moot by the collective decision that child labor--irrespective of potential economic benefits--is unacceptable. The political process as well as laws and regulations, such as the Magnuson Act, often give us insight into what those normative criteria are.

Social Impact Analysis

The original inshore-offshore analysis used a series of models (Fishery Economic Assessment Model) to assist in the decision-making process. FEAM is an input-output (I/O) model and really isn't either an efficiency or an equity measure. Under this technique, individual firms are aggregated into groupings (sectors) according to similarity of business activities and prevalence in the local economy. Each sector purchases goods and services from itself or other sectors and sells goods and services to itself or other sectors. Thus an input-output model approximates the local economy by expressing economic relationships among sectors. A transaction matrix of these relationships is formed. This matrix provides the information used to derive a variety of multipliers which are used to measure the importance of an economic activity. An I/O model will allow us to predict the effects throughout the economy of changes in the output of any one sector. So this type of model can be used to estimate the impact of resource changes or to calculate the contributions of an industry to local economies. Because it deals with distributional effects, it may provide some insight into equity concerns.

Magnuson Act

The overriding concept of modern fisheries management stems from the Magnuson Fishery Conservation and Management Act (Act, Magnuson Act) of 1976. "Among the Magnuson Act's goals were the elimination of foreign fishing in the US Exclusive Economic Zone (EEZ) ...."[ix] The Act also created the 8 regional councils and advocated the use of Optimum Yield in order to "provide the greatest overall benefit to the nation." The North Pacific Fishery Management Council is unique among the 8 in that its jurisdiction encompasses fishery resources off the coast of only one state (Alaska).

Development of fishery management plans (FMPs) and amendments is a major responsibility of the councils. Before implementation of a new amendment, the action must be found to be consistent with the seven National Standards contained within the Act. The mandate of national benefits, along with various of the national standards, provide the basis for our efficiency criteria.

The passage of this Act also provides some insight into the relative weights that are being assigned to different segments of society. Clearly, benefits that accrued to foreign residents are less desirable than those that accrue within our borders. In addition, given the composition and creation of regional fishery councils, the Act suggests that those directly involved in the fisheries and of closer physical proximity might be accorded a higher weight than someone else in the U.S. located in the Midwest, for instance. This gives us the basis for our normative equity criteria.

Since its inception under the Magnuson Act, the North Pacific Fishery Management Council has seen the structure of the groundfish fisheries off the coast of Alaska go through many rapid and perhaps irreversible changes. Some of those changes are a direct result of the policies enacted by the Council.

Problem Statement and Background

Worldwide, says the United Nations Food and Agriculture Organization, 13 of 17 major ocean fisheries are in trouble. The annual marine-fish catch, having peaked at 86 million metric tons in 1989, dipped to 82.5 million by 1992. [x]

Although the groundfish fisheries of the North Pacific are, in general, in good health, they have not escaped the problems of open-access fisheries that have already lead to overcapitalization and will perhaps, inevitably, result in overfishing of stocks. With the advent of the U.S. EEZ and our American-preference policy, the foreign share of total catch decreased from over 99% in 1976 to less than 4% in 1987. While there was an expansion of all gear types in the domestic fisheries during this time period, nowhere was it as apparent as in the trawl fleet. "Only 16 were reported active in 1975; but by 1987, the number increased to 147 vessels, a growth of 131 vessels or 819% increase."[xi] Although these trawl vessels targeted many different groundfish stocks, the largest component of their catch was walleye pollock. Stocks are now generally recognized to be fully utilized and fisheries are overcapitalized as the race for fish continues.

One consequence of the movement from a foreign to a domestic fleet was a shift in harvesting pattern. "Japanese fisheries from 1971-80 took an average of 18.8% of the total annual pollock harvest during the months of January through April. DAP pollock fisheries in the BSAI and GOA took from 21.5% to 35.8% of the combined annual pollock harvests during the months of January-April for the years 1986-1989. JVP harvests during the same months and years ranged from 23.6% to 76.5%. In 1990, a total of 389,722 mt of pollock was taken in the BSAI management area through April 14. This is 35.8% of the initial TAC for this area....In 1991, a total of 461,944 mt of pollock was taken in the BSAI management by the close of the roe season (22-Feb.-91 closure). This is 41.8% of the initial TAC for this area."[xii] Catch for at-sea processing was the largest and fastest growing component of groundfish harvesting. "It increased from 106,200 t in 1986 to 1,301,500 t in 1991.[xiii]

The original inshore/offshore allocation proposal came out of the Council's acknowledgment that the make-up of these fisheries was changing more rapidly than had been anticipated. In 1989, the Council was then involved in consideration of a moratorium on entry to all fisheries. That proposal was a short-term attempt to slow the increase in harvesting capacity while the Council sought to find a more permanent solution in the form of limited entry or ITQs. The inshore/offshore proposal was really an analogous short-term regulation that incorporated an extension of the Council's concern to the processing sector. The driving force behind both the introduction of a moratorium and for the initial inshore/offshore allocation was to keep management's options open while it assessed all the implications of these fisheries' developments. As such, the inshore/offshore amendment has never purported to be anything but a stopgap measure intending to keep all the sectors financially stable until we have a better understanding of how to develop an optimal approach to the underlying problems, of which all these allocation conflicts are merely symptoms.

Specifically, the Council, through a series of refinements in 1989 and early 1990, adopted in April 1990, the following statement of the problem to be resolved in the groundfish fisheries of the Gulf of Alaska and the Bering Sea and Aleutian Islands:

Original Problem Statement

> The finite availability of fishery resources, combined with current and **projected** levels of harvesting and processing capacity and the differing capabilities of the inshore and offshore components of the industry, has generated concern for the future ecological, social and economic health of the resource and industry. These concerns include, but are not limited to, localized depletion of the stocks or other behavioral impacts to stocks, shortened seasons, increased waste, harvests which exceed the TAC, and **possible preemption** of one industry component by another with the **attendant social and economic disruption.** (emphasis added)
>
> Domestic harvesting and processing capacity currently exceed available fish for all species in the Gulf of Alaska and most species in the Bering Sea. The seafood industry is composed of different geographical, social, and economic components that have differing needs and capabilities, including but not limited to the inshore and offshore components of the industry.
>
> The Council defines the problem as a resource allocation problem where one industry sector faces the risk of preemption by another. The analysis will evaluate each of the alternatives as to their ability to solve the problem within the context of harvesting/processing capacity exceeding available resources.
>
> The Council will address these problems through the adoption of appropriate management measures to advance the conservation needs of the fishery resources in the North Pacific and to further the economic and social goals of the Magnuson Act.

The resulting allocative split, along with the Catcher Vessel Operating Areas (CVOAs) and Community Development Quotas (CDQs), had barely been in place for two years when the Council directed its staff in September of 1994 to begin an analysis of an extension. Progress has been slower than anticipated both in enacting a moratorium and in developing a comprehensive rationalization program (CRP).

The new draft problem statement for the current analysis focuses on the consequences of extending the existing allocation as an interim measure while the CRP process goes forward. The main criteria for the preferred option is which one is least likely to introduce further instability and disruption to the relevant sectors during this transaction period while NMFS and the Council devote their resources to creating an improved long-term management system for guiding these dynamic and highly variable fisheries.

Performance Indicators

As there did not exist a commonly-agreed upon set of indicators against which to evaluate all the relevant categories, the initial task was to review numerous sources in order to compile a list of likely candidates. Our review included the Handbook of U.S. Economic & Financial Indicators, the Economic Sourcebook of Government Statistics, Social Statistics in Use, Standard & Poor's Industry Surveys, Moody's Investor Service Manual among others. In addition, a telephone survey of various lenders and financial analysts listed in the Northwest Fisheries Association 1994 Directory was conducted to identify categories and critical levels of general ratios they use.

A common measure used in evaluating industry performance is capacity utilization. This can be defined and measured in a variety of ways but the most widely used concept of capacity equals maximum output in a given time using existing capital and under normal operating conditions. As these fisheries have changed so much over the past decade, with large additions of capital, changes in operating methods, and with much debate over how to accurately measure fishing power and other utilization standards, no quantitative data is presented for this measure. There appears to be general agreement that the industry has more than sufficient capacity to utilize the likely amount of stocks available in the near future.

Social indicators involve not only quantitative measurement of an aspect of the social but also its interpretation in relation to some norm against which the statistic represents advancement or retrogression. According to a 1973 OMB publication on Social Indicators, "In each case the focus is on widely held basic objectives....the opportunity to work at a job that is satisfying & rewarding; income sufficient to cover the necessities of life with opportunities for improving income.." There does not exist a single aggregate measure; rather we need to look at a composite of various measures to seek some overall evaluation.

In addition, when attempting to gather data to evaluate the performance against any given standard, it is important to determine whether the results are statistically valid or not. A basic conceptual issue in gathering a statistical sample is just defining what one is trying to measure. The more subcategories that are created to partition the data into, the more complicated it is to figure out what one is actually sampling.

Industry Health

Number of Players

One measure of performance can be the total number of firms operating within the fishery sector and that trend over time. In general, an increasing number of firms indicates a continuing entry into the fishery. Firms tend to invest where they expect to earn a relatively high rate of return.

A difficulty arises in just defining who the players are. If one reflects on how they view themselves, it often places them within a greater context than just the pollock fishery. Whether we are talking about an industry or about a fishery, it is not always clear what should be included. A plant that converts in response to declines in 'traditional markets' or fisheries into another species may feel its financial dependence should be based on the broader fishery context than on a species-by-species basis. We know these fisheries and these operations are not static. It can be misleading to just look at the number of players currently involved. Even with some practical constraints, most inputs (capital, labor, raw fish) can be transferred to the production of another good. All of the capital can be utilized in the production of more than one product and these firms will enter and exit the market based on a variety of factors and perceived opportunities. A few short years ago some of these vessels were tuna seiners or oil supply vessels and the plants were focused on processing crab and salmon.

Some of the definitional categories that can be used include:

Processors.

Factory trawlers. These are vessels that have the ability to both catch fish and to process their harvest onboard into a variety of product forms. Most FTs fit the within the offshore processors' definition and often treated as being synonymous with that categorization.

Factory longliners. These catcher-processors operate in a similar manner to the FTs but the gear employed is longline as opposed to trawl nets. Often vessels that are employed as longliners also use pot gear.

Shore-based plants. These are operations that are 'permanent' structures tied to a specific location. They rely on catcher vessels to harvest the stocks and deliver them back to the shorebased operation.

Motherships. Often referred to as floaters, these are vessels that lack harvesting capacity. As such, they operate in a similar fashion to shoreside plants, except they have the ability to move around with the harvesting fleet. They can process deliveries at-sea or be based at a specific location.

Inshore. The inshore sector by definition (developed for the original allocation) includes all shore-based processors, catcher-processors or motherships which operate solely within state waters, and catcher-processors less than 125' LOA which process less than 18 mt (round weight) per day.

Offshore. The offshore processors include all processors that do not fit the above inshore criteria.

Harvesters.

Catcher Vessels. These vessels have no processing capacity but can deliver a variety of groundfish stocks to either at-sea or shorebased processors.

Factory trawlers. (Defined above).

Factory longliners. (Defined above).

These could be further divided into players within the various groundfish fisheries, or by management area or by product forms.

Company Structure. Another way to sort the players would be by actual company. Most of these operation are conducted under the corporate structure. A company could represent an individual vessel, or it could be a corporation that has expanded to include vessels, with various gear types, and different types of processing capacity. Large corporations, often exhibit some degree of either vertical or horizontal integration, which means they would cut across a number of the categories defined above. In addition, the scope of their operations may be beyond any one given fishery, management area, or region.

Total Catch and Shares

Although the overall groundfish quota and pollock TAC (in the Bering Sea/Aleutian Islands) has remained relatively stable, a review of the shares also provides a measure of a sector's well-being. Access to the raw fish is critical to the continuing financial health of any sector.

Annual Revenues

Changes in gross revenues can reflect both changes in production levels and in prices received. All other things remaining equal, increases in gross revenues is a good sign. Net revenue also captures a component of the production inputs' costs. Revenue can be measured either for the whole scale of an operation or for just the returns from pollock products.

Fishing Seasons

When a fishery is open-year to harvesting, then participants have more flexibility over when they can choose to participate. They are free to pursue other fishing opportunities that are more limited in nature or to remain employed in this fishery all year-round. The shorter the seasons, the more likely they will have to forgo other opportunities in order to

participate in the pollock fishery and the more likely the fishery has too much fishing capacity relative to the quota level so that some will be underemployed.

Financial Health Measures

A whole host of key business ratios have been developed to use as indicators of solvency, efficiency, and profitability--critical areas of business performance. Two main measures of protection for creditors of a firm are the "current ratio" and the "acid ratio". The higher the ratio, the more assurance exists that retirement of current liabilities can be made and the greater the margin of safety available to cover any possible shrinkage in the value of current assets.

Business Failures and Bankruptcies

Firms who decide to exit the fishery due to their poor financial performance base this investment decision on more than one year's poor performance. Looking at increases in failure rates and bankruptcies can indicate declining financial health. However, it is also true that some factors of bankruptcy cut across regional, industry, and sector lines and that placing these numbers within the broader context of trends within those areas would have provided a helpful reference point to begin to understand this measure.

Dun & Bradstreet (D&B) monitors the number of business failures on a weekly basis and publishes this data in a regular series of weekly, monthly, and quarterly reports. These reports represent one of the few statistical sources to track economic development. These statistics include businesses that ceased operation following assignment or bankruptcy; ceased operations with losses to creditors after such action as foreclosure or attachment; voluntarily withdrew leaving unpaid obligations; were involved in court actions such as receivership, reorganization or arrangement; or voluntarily compromised with creditors.

Economic Well-being

Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable. A region's economic health can be measured in a variety of ways. Relying, in part, on the annual *Development Report Card* published by the Corporation for Enterprise Development in Washington, D.C., this report provides measures other than the standard unemployment and per capita income indicators. Many regions are now striving towards a sustainable development policy, which is directed towards maximum welfare that can be sustained by available resources.

Jobs/Employment Growth

A community can be considered healthy if it is maintaining or adding to the absolute total of relatively high-paying jobs. Although the unemployment rate is a common measure, it does not capture underemployment, discouraged workers, subsistence practices, and is influenced by the total base of people looking for employment.

Population Base

An expanding or declining population is a common indicator of growth or decline in business and employment. From a firm's perspective a larger population base increases the potential for available workers. From a worker's perspective, labor does not flow as easily across boundaries as physical capital. Migration out of a community is one indication of reduced prospects for economic well-being in the local community.

Groundfish Dependency

A measure of how diversified a community is gives an indication of how well the community can adjust to exogenous shocks, such as a policy change. The more dependent on fishing as a base sector, the less likely the community will be cushioned from any shocks that disrupt the supply of fish.

Market Indicators

Consumers worldwide obtain value or utility from the direct consumption of various pollock products, such as surimi analogs, pollock fillets, and roe. It is only from that final demand that the demand for pollock and other factors is derived. The markets for the various products forms are different but can be influenced by the same general factors, such as consumers' income, expectations, and the price and availability of substitute goods.

The structure of a market can influence the equilibrium price observed. The more concentrated a market is and the more barriers to competition, the greater market power an individual firm will have to influence the pricing structure.

The Japanese market probably represents the most important source for pollock demand. The American public, in general, does not consume as great a quantity of fishery products, on a per capita basis. There is a domestic fillet market and increased consumption of surimi analog products. However, since 1987, when the National Fisheries Institute (NSI) initiated its annual listing of America's 10 most popular seafoods, tuna has remained the #1 favorite. In 1993, average annual consumption per person was 15 lbs. Pollock (as the main ingredient in surimi products) made it into the top five, and actually placed above salmon.

Product Forms

Surimi, fillets, and roe are the major pollock products, although there are smaller quantities of minced, block, and other products produced as well. Within each product form, there exists variability in quality and pricing structure.

Cold Storage/Inventories

In addition to the amount of product that is processed from any given year's annual harvest quota, existing inventory (from previous years' that had been processed but not consumed) is available to meet that current year's demand.

Increasing inventories usually reflect a 'weakening' of demand for that product, and will result in a decline in market prices. However, increased inventories can also represent a stockpiling effect, where one anticipates a disruption of future supply or higher prices.

Prices

As noted above, these products are traded within a global market. Pollock fillets compete within a general fillet market, which includes fillets from Atlantic and P. cod. The more substitutes for a good, the more price elastic the demand for that good will be. Pollock tends to be the lower-priced substitute for cod fillets, so the price trend of cod will influence the ability to receive high prices for pollock fillets. Relative to the fillet market, surimi is not globally competitive. The surimi market is a narrower market, with fewer players involved and is primarily a pollock market. Although some surimi is made from Pacific whiting, and there continues to be improvements in technology designed to utilized other stocks, for the time being, pollock is preferred stock for making surimi. The North Pacific stocks located within the BS/AI and GOA management regions represent a significant portion of that species.

Policy and Management Indicators

"Government is a contrivance of human wisdom to provide for human wants," wrote Edmund Burke in his *Reflections on the Revolution in France.*[xiv]

System Performance

Amendment proposals and appropriate alternatives accepted by the Council are analyzed for their efficacy and for their expected effects on the biological and economic environment . Most analyses of proposed fishery actions do not include more than a passing reference to the consequences of the preferred alternative on the management system. Yet we know that these regulations can greatly change the ability of management to gather data, analyze conditions within the fisheries, and to enforce requirements. The equity and efficiency measures can be employed when evaluating the overall management process. National Standard 7 of the Act also suggests that management measures avoid duplication and minimize costs of understanding and complying, where practicable.

As previously noted, regulations will cause changes--sometimes intended and sometimes unintentional. Declining to act on a particular 'problem' will cause the fisheries to evolve along a different path than if a regulation is passed. Often the projected path does not reflect the actual course of the fishery, due to errors in forecasting and the inability to

anticipate outside forces that modified the fishery. Management, itself, must deal with uncertainty and risk. What are the expected consequences and what happens if we guess wrong?

Adaptive policies are designed from the outset to test formulated hypotheses. This is not the same as trial and error. "In contrast, adaptive managers make measurements so that action yields knowledge--even when what occurs is different from what was predicted."[xv]. We know we are going to make errors, but it is possible to design our actions so we can learn something from the process. Adaptive management requires the application of science to policy that can produce reliable knowledge from unavoidable errors.

Information

Scientific analysis is the underlying foundation to a sound resource management system. In fact, National Standard 2 specifies the use of the best scientific information available. Two types of information for management are critical: 1) the way that fish populations respond to changes in exploitation rates, as well as biotic and abiotic conditions; and 2) how fishermen respond to changes in fish availability and economic conditions.[xvi]

In order for the information to be useful, it must be gathered in a reliable manner and proper analytical techniques must be employed. The further we move from utilizing data and information that complies with the notion of scientific analysis, the more we leave the system open to real and perceived arbitrary acts that could cause lack of faith in the entire fisheries management system.

Option Value and Flexibility

In 1953, Aldo Leopold, one of the founding fathers of resource management and conservation movements, stated that "to keep every cog and wheel is the first precaution of intelligent tinkering." Following this type of rule is easy when the "costs" of preserving all components are relatively low. However, the reality is that management decisions often lead us down a path that closes out other options, and are essentially irreversible with a reasonable time scale. We can't keep *every* cog but we need to recognize there is added value to an alternative that gives us more options and the flexibility to reverse and modify our direction once we have had the time to evaluate the implications of that action.

Data on the Relevant Sectors

Nature of the Operations Involved

As already noted, these operations can be defined in a variety of ways. As such, it is not always clear over what time series the data should be presented. If one is focused primarily on the industry since the original inshore-offshore allocation, then data from the past two or three years should be sufficient. However, if one is attempting to evaluate the consequences within the overall framework of the industry, then a longer timespan would

be preferred. In addition, given time lags in acquiring and presenting data, for some of the categories, 1994 or 1995 data are not available or are preliminary.

Number of Players

Looking at the number of vessels that landed groundfish in the domestic fisheries off Alaska from 1986 to 1993 (all gears, all areas), there has been a fair amount of variability from one year to the next. [xvii] From 1986 to 1987, there was a 22% increase or 410 vessels. This was followed by a two year decline from 1, 859 vessels in 1987 to 1,576 in 1989, for a 15% drop in participation, before beginning to trend up consistently over the next 3 years to a peak of 2,341 vessels in 1992. In 1993, the number of vessels fell to 1,977 or 84% of the 1992 total. The vast majority of these vessels operated in the Gulf of Alaska and were predominately hook & line gear vessels.

As pollock is primarily caught with trawl gear and the size of the BSAI pollock harvest dwarfs that of the GOA, we can focus on that part of the overall fleet and see a clearer trend. The number of BS/AI trawl participants increased steadily from 45 vessels in 1986 to 191 in 1992, for a 324% increase in just 6 years before declining 8% from 1992 to 1993. In addition, there has been a steady increase in the average length of the vessel.

Although not all trawl vessels participated in the pollock fishery, the pollock fleet tends to be a large component of the total trawl operations in the BS/AI. It has consistently represented 60% or more of the total number. This isn't surprising as the pollock quota represents by far the largest amount of groundfish stocks available to this or any fleet.

According to NMFS' sorting of blend and fish ticket data, the number of trawl vessels that participated in the pollock fishery at-sea (including motherships but not individual catcher boats delivering to those motherships), peaked in 1989 at 80, dropped dramatically to 60 in 1990, before rebounding to 67 in 1991 and 1992. In 1993, 62 operations were involved.[xviii] Those operations that could be deemed shore-based have a more mixed record. In 1986, 15 trawl operation were counted as shore-based, which was a slightly larger number than the 13 trawl at-sea operations. Again in 1987, the shore-based operations in the BS/AI pollock trawl fleet had a greater number of participants than the at-sea category (33 versus 23). However, in 1988-89, as the at-sea continued to expand (in terms of number of participants) to 80, the shore-side component dropped down to 22 players. In 1990, as the at-sea fell down from their peak number to 60, shore-side operations rebounded from 22 in 1989 to 39 vessels in 1990. They continued to increase in number to 74 in 1991 to 115 in 1992. No doubt, part of the big jump from 1991 to 1992 could be attributed to the initial inshore-offshore allocation but by looking at the two components' previous numbers, relative to the total number of vessels, it is also apparent that some degree of switching took place. Some catcher boats (for whatever reasons) would be involved in a pollock at-sea operation one year, and become a shore-based deliverer at another time. Vessels also entered and exited the pollock fleet from other groundfish operations.

A report by Mort Miller, Doug Lipton, and Paul Hooker[xix] (MLH) separated the data in a slightly different manner. They reported a decline in the number of actual factory trawlers

that participated in the BS/AI pollock fishery since 1991. The number of catcher-processors that operated in the BSAI pollock fishery went from 52 in 1991 to 39 in 1992 to 30 in 1993--a reduction of 42%. But a considerable number of these vessels also operated as motherships so when accounting for dual roles, the actual number of operating players varied only slightly from 53 to 49 to 50 over the years 1991, 1992, and 1993, respectively.[xx] The biggest change in actual operations that MLH reported did not occur at the processing level but at the harvesting level. Catcher vessels delivering to shoreside plants and motherships initially showed a huge increase from 77 to 136 from 1991 to 1992 but by 1993 had dropped down to 63 operations.

Using data from *Pacific Fishing*'s annual directories of pot and longline processors, from 1992 until 1994, there has been a reduction in the overall number of vessels listed and a shift in primary species' focus from crab and salmon to P. cod.

The number of plants involved in the processing of groundfish is relatively small in comparison to the size of the fleet (catcher-processors, harvesters, and motherships). It becomes an even smaller number when sorting out by location. Because of that, it is relatively easy to identify individual operations, which raises confidentiality concerns, and sometimes inhibits the collection of data on this component of the industry. Most plants were constructed initially to process salmon or crab and then modified operations to take advantage of the pollock products as those markets developed and their 'traditional ones' declined. So, the number of plants that principally processed pollock in the BSAI is has increased in number over the past few years. Four plants operated in 1991 and by 1993 that number was 6.

Although a number of players are operated under a corporate structure, it can sometimes be difficult to obtain information on an overall operation. One corporation can own another corporation and an actual functioning entity can (for tax or legal reasons) operate each of its vessels as a separate corporation structure.

This example is just presented as an illustrative one on how company operations can cut across categories we commonly employ in fisheries management. Arctic Alaska, which was one of the preeminent names in the short history of the factory trawler fleet in the North Pacific, agreed to be acquired by Tyson Foods, Inc., in June of 1992. As of 12/31/91, it owned and operated 31 groundfish and crab vessels. In 1990, this company harvested 9% of the 3.9 billion lbs of bottomfish caught in the US EEZ off Alaska.[xxi] From 1989-1991, 44 to 48% of Arctic Alaska's revenue was contributed by exports sales. In addition, Arctic Alaska Fisheries Corp. teamed up with a fish processor in Newport Oregon to produce whiting onshore in the Newport area. It has subsequently be reborn as Tyson Enterprise Seafood, Inc. and has bought the Kodiak facility of All Alaskan Seafood—a 460' processing ship that has been docked since 1965. [xxii]

Total Catch and Shares

Catch in the commercial fisheries off Alaska (1,000 mt round weight)

Year	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total	1880	1864	2109	1884	1945	2387	2280	2149	2055
Pollock	1330	1326	1405	1348	1431	1711	1532	1494	1506

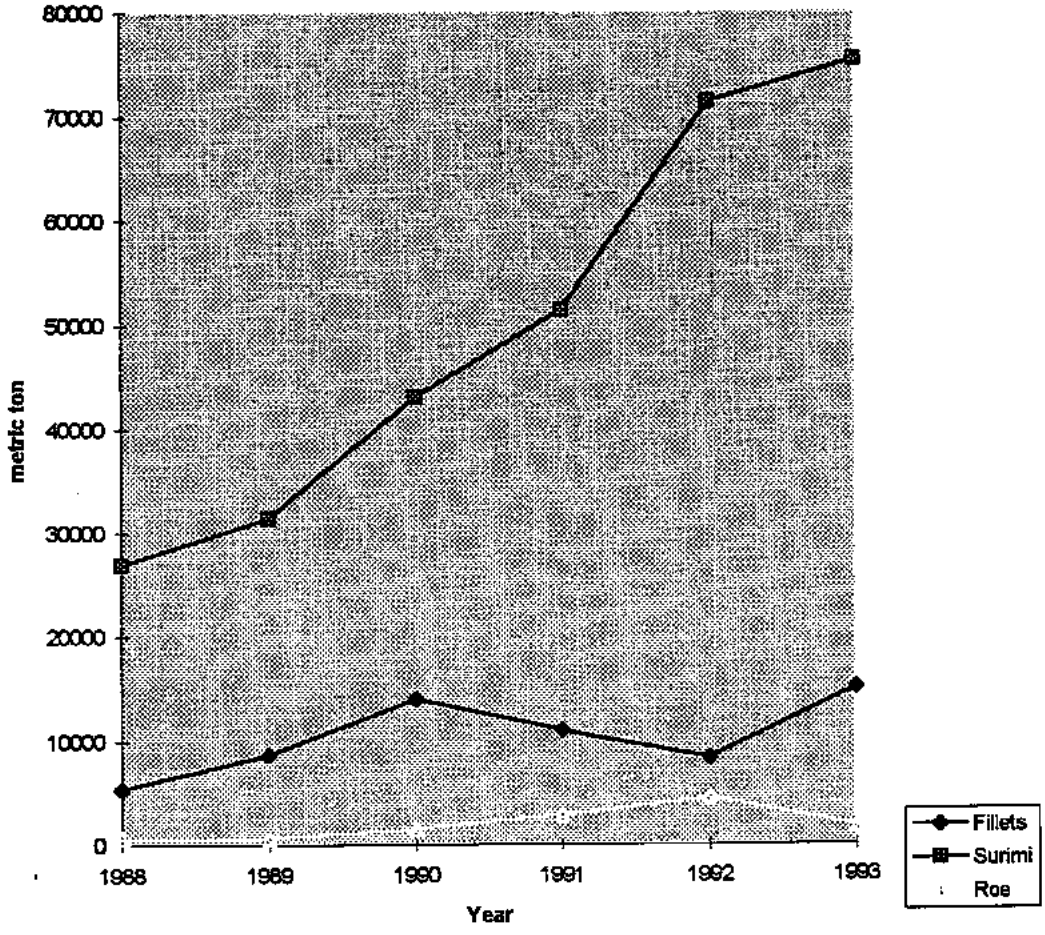
Source: Economic Status of the Groundfish fisheries off Alaska, 1994. Tables 1 and 3. AFSC, NMFS, Seattle
Note: 1994 are preliminary and only reflect activity through October 1994

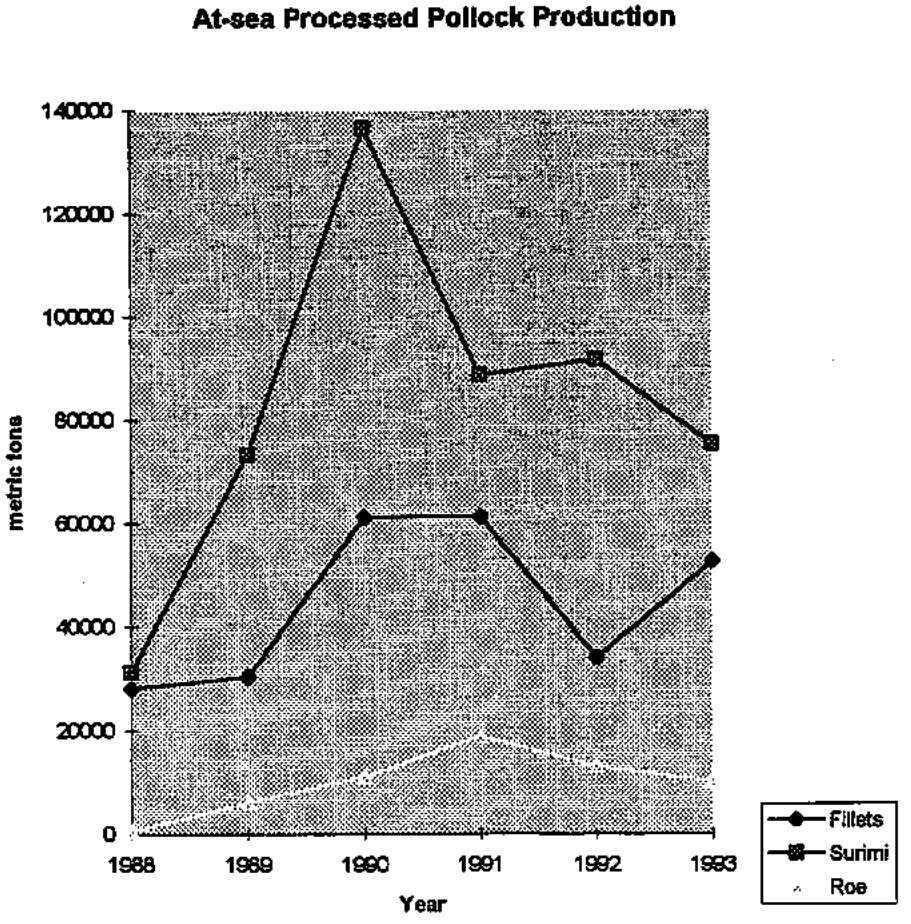
Although there has been some fluctuation in both the total and pollock harvest levels over the time series, it is clear that the pollock harvest is the dominant component off groundfish harvest off Alaska. While the total amount of pollock harvested is not expected to drop off much, there will be some decline in the pollock harvest in the Gulf due to biological concerns.

"Catch for at-sea processing has been the largest and fastest growing component of catch. It increased from 239,400 t in 1987 to 1,488,300 in 1991, and dropped off to 1,238,200 t in 1993. The catch for shore-based processing increased from 167,900 t in 1987 to 562,100 t in 1993. The relative catch of these two types of operations varies by area and by species. In the Bering Sea and Aleutian Islands region, catch for at-sea processing exceeds that taken for shore-based processors for each species. The opposite is true in the Gulf, with the exception being rockfish and flatfish. Preliminary data through June 1994 show that the catch by at-sea processors totaled 695,100 t, and shore-based processors received 356,100 t of groundfish."[xxiii]

The following graphs show the trend in actual pollock products for shorebased plants and for at-sea operations. Surimi is the biggest product form overall, for both types of operations, with it accounting for half or more of the total value of pollock products.

Shorebased Pollock Processed Product





Sources: Personal communication, Dave Colpo, AFSC, March, 1995; Table 32, Economic Status of Stocks, 1994. AFSC.

Joint Production

When evaluating these data from almost any viewpoint, it is apparent that most operations now produce more than one product and utilizes more than one species over the course of any given year. Looking at the Processor Directory 1994 in *Pacific Fishing*, which lists primary processors from California to Alaska, only 1 processor from Alaska or Washington listed just 1 fish. The fish stock was pollock and the processor was Golden Age Seafoods, Inc.[xxiv]

Annual Revenues

NMFS data shows the nominal ex-vessel value of the groundfish catch off Alaska peaking in 1992, with an estimated 675.1 million dollars worth of harvest. It then declined in value both in 1992 and 1993. The decline is due to both a decline in harvest levels and a decline in the average ex-vessel price received.

Pollock

MLH, in their report, looked at the scale of operations for the three primary processing categories: motherships, factory trawlers, and shoreside plants, and found there exists considerable variability in performance within each class.

Again, looking from 1991 to 1993, the authors found the same overall result for all three types: there was a reduction in returns to the average operation and a narrowing in the range between upper- and lower-end performers. However, the shoreside producers did see an increase in both the average return and a widening in the revenue range in 1992 before declining in 1993.

As a side issue, the MLH report also noted that reduction in volume and accompanying revenues would have been greater for the offshore trawlers, except that many were able to lease the Alaskan communities share that had been set aside under the CDQ portion of the original inshore/offshore amendment. For factory trawlers involved in the CDQ arrangement, average 1993 revenues were only 15% below 1991 numbers, while for those not involved, average revenues declined by 45% in their subset.

Calculating profit derived from any one product or species would be difficult then as some proportion of fixed costs needs to be accounted for. Removing access to any one area, one species, or one product would not necessarily make a diverse company unprofitable but it does limit the company's flexibility to adjust its performance in response to changing market conditions.

Fishing Seasons

Bering Sea Pollock Fishery Number of Fishing Days

YEAR	*1990*	*1991*	*1992*	*1993*	*1994 **
INSHORE	286	148	158	112	41
OFFSHORE	286	148	103	85	29

*** 1994 numbers reported only through "A" season.**

Source: Table 1, *Profile of Change: A Review of Offshore Factory Trawler Operations in the Bering Sea/Aleutian Islands Pollock Fishery;* Morton Miller, Douglas Lipton, Paul Hooker; 10-24-94. page 4

Almost without exception, the length of the pollock fishery season has been continually declining. In 1990 and 1991, the fishery was not split between inshore and offshore, nor was there an "A" and "B" season split. The totals presented in the table reflect the number of days the pollock fishery was open. Total number of fishing days declined 48% from 1990 to 1991.

With the split in place, the inshore sector saw a one year upswing in the length of the season but the overall downward trend began again in 1993 and continues. The offshore component saw an even bigger drop in 1992. The Bering Sea 1995 "A" season closed on February 21st, even with the delay of the start of the season until January 26th. Shoreside closed on March 1st.[xxv]

Financial Health Measures

A whole host of key business ratios have been developed to use as indicators of solvency, efficiency, and profitability--critical areas of business performance. Two main measures of protection for creditors of a firm are the "current ratio" and the "acid ratio". The higher the ratio, the more assurance exists that retirement of current liabilities can be made and the greater the margin of safety available to cover any possible shrinkage in the value of current assets.

An overall accounting rule of thumb considers a ratio of 2 or higher (current ratio) to be good. MLH found for their sample fleet's, a ratio to consistently be below 1 throughout 1990-1993. Overall revenues are down, which means for the less efficient firms that profits have disappeared.

According to Page ii of the most recent edition of *Industry Norms and Key Business Ratios* by Dun & Bradstreet Information Services, "In a statistical sense, each median is considered the *typical* ratio figure for a concern in a given category." Evaluating the broadest SIC classification, SIC 01, Agricultural Production, only the upper quartile had a current ratio that exceeded 2.0 in 1993--the median was 1.8. The number gets even lower when looking at seafood classifications.

Moving closer to what can be considered a norm when evaluating this fleet, we looked at the current ratio for Tyson and for Arctic Alaska over a longer time series.

Current ratio for Tyson Food Inc. (Stock report 8/24/94)

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1.3	1.2	1.2	1.2	2.4	1.6	1.2	1.2	1.5	1.5

As of 7/94, Tyson's current ratio was 2.42. During fiscal 1994's third quarter, TYSNA incurred a $214 million pretax charge to write down goodwill and other assets of Arctic Alaska.

Arctic Alaska's Current Ratio (5/28/92 Stock Report)

1983	1984	1985	1986	1987	1988	1989	1990	1991
0.6	0.4	0.6	0.6	0.6	1.0	1.5	1.1	1.2

In EEA's survey of lenders and financial managers familiar with commercial groundfish operations, the general consensus was that a current ratio of 1.0 would not be considered

unusual or out of the "norm". They see the decline in the number of fishing days and tons handled have lead to production decline; which has caused a cash flow problem. The firms that survive will meet the liquid test....do they either have enough reserves or the ability to borrow to make it to the long term. Many of this operations have big fixed costs, and large floating rate debt.

Business Failures and Bankruptcies

As of February, 1994 6 catcher/processors and 3 mothership operations were in various stages of bankruptcy proceedings. Three of these vessels are still actively involved in fishing and could emerge under some reorganization. Only 6 are actually tied up and can be considered no longer involved in the fishery. There is no record of failures for other types of processors or for harvesters.

Some vessels have decided to exit the fishery due to their poor financial performance. This investment decision (to enter or exit) is dependent on more than one year's poor performance, suggesting that more firms may make that decision in the future as many of the indicators we are discussing appear to be flat or on a negative trend.

It is also true that some factors of bankruptcy cut across regional, industry, and sector lines and that placing these numbers within the broader context of trends within those areas might provided some helpful insights.

A record 88,140 businesses failed in the United States in 1991, up 45% from the failure rate of 1990. "The recession, coupled with the vast amount of debt accumulated in the 1980s, hasten its toll across the US," said Joseph W. Duncan, vice president and corporate economist for the Dun & Bradstreet Corporation. "Business failures have been rising since April of 1990, underscoring the breadth of the recession." "Duncan noted that the sharp jump in failures in 1991 follows a 20.6 percent increase in 1990. Business bankruptcies in 1991 were up across the United States, *with every US Bureau of the Census region and every major industry group reporting increases in business failures.*"[xxvi] (emphasis added).

However, that record did not last long because 1992 also set a record for the most business failed: 96,836, up another 9.9% from the previous record of 1991. During 1992, all major industry groups reported increases in business failures. "The agriculture, forestry, and fishing sector reported the sharpest percentage increase in 1992 failures, up 26.9 percent to 2,863 from 2,256."[xxvii]

In 1993, the number of business failures fell 11.4%—the first decline since 1989. However the failure rate did continue to increase in 6 states, primarily in the Northeast and Pacific Northwest, led by Alaska with a 5.9% increase.[xxviii] These numbers could be summarized by state, region, and major SIC. Clearly some regions and industries in the U.S. have prospered over this time period but it is important to note that some of the financial strain on this industry comes for the general economic performance.

Economic Well-being

Although these groundfish products are sold worldwide, and the physical and human employed to produce them have come from many diverse sources, there are a few communities that have the primary ties to these groundfish fisheries. We will look at some data for Dutch Harbor/Unalaska, AK, Kodiak, AK, and the Puget Sound area of WA and compare their performance with the overall state and national levels. However, the Council also has the Community Profiles and Fleet Sector Profiles recently developed for the CRP analysis that provide a variety of information that could be incorporated into this section as well.

Alaska's economy grew for the 6th straight year in 1993 and unemployment dropped to 7.7% which is its lowest level since 1990. [xxix] However, this growth occurred against a backdrop of struggling resource-based industries. The hard rock mining industry (closure of Greens Creek mine near Juneau), the timber industry (with pulp mill closures in Sitka), the fisheries (continued struggles in salmon fishery due to depressed prices, apparent slowing down of groundfish industry). In 1994, the oil industry continues to shed employment and restructure in the face of worldwide softening of demand.

Growth within Alaska has been imbalanced regionally, with much of it happening around Anchorage and away from rural Alaska. According to the Alaska Department of Labor, unemployment in rural Alaska (defined as areas below a set population limit and not on the main road or ferry systems) is more than twice the rate of the rest of the state. With roughly 60% of the land base remaining in federal hands, as is much of the fishery resources, local communities have limited options for encouraging economic development.

Seafood is important as a processed product. While that is true not just in Alaska but also the other Pacific Coast states, if Alaska were an independent country, it would rank among the top ten world seafood producers[xxx] Whether measured in physical output or in value, groundfish, particularly pollock, contribute a significant portion of that production. In terms of landings, the Kodiak and Dutch Harbor/Unalaska ports represent more than 70% of the total landings in Alaska.

Washington's economy grew over this time period as well, with its unemployment averaging just slightly below or above the national average at the time (5.5-6%). Like Alaska, regional performance within WA has been uneven, with part of the state vastly outperforming the remainder. Most of its growth has occurred within the Western portion of the state, particularly around the Puget Sound. This area has a more diverse economy than the remainder of the state or an region within Alaska. It is also the area that has the closest ties to the commercial groundfish fisheries under the Council jurisdiction.

Jobs/Employment Growth

The National Institute for Occupational Safety & Health (NIOSH) conducted in 1991 an extensive survey of the commercial fisheries in Alaska. The report was completed in Fall 1993 and provided employment estimates of work force by major Alaska fisheries. The

salmon fishery leads all with 52.4% of total harvest employment. The groundfish (primarily cod and pollock) employ 19.5% of all fishers. NIOSH estimated shorebased harvester employment was more than 2.5 times that of the offshore component.

Alaska's Commercial Fishing Employment

Year	*1986*	*1991*
Salmon	6,836	7,932
Herring	571	840
Halibut	1,012	1,057
Shellfish	1,857	2,351
Groundfish	2,345	2,958
Misc.	--	62
Total	12,621	15,200

From Alaska Economic Trends, September 1994, Alaska Dept. of Labor; Data Sources: NIOSH & AK Seafood Industry Study, McDowell Corporation

Population Base[xxxi]

The national economy can be segmented into regional purchasing areas to assess basic trading patterns. A trading area is where residents make the bulk of their shopping goods purchases. Effective Buying Power (EBI) equals gross personal income less personal taxes and non-tax payments, such as fines, fees, and penalties and are presented below in 1000s of 1992 dollars.

Using that division, one can look at population trends and income within those regions. Seattle ranks 15th among the nation's largest basic trading area, while Portland, OR is 26th, Salem-Albany-Corvalis, OR is 112th, and Anchorage is 127th.

The 1990 Census population for the Anchorage trading area, which includes the Aleutians and Kodiak, was 388, 943. This area's population has increased 38.6% from 1980. By 1992, the population has continued to grow to 423,700. The Seattle-Tacoma trading area's population has also increased, by 22.6% from 1980 to 2,708,949 in 1990 and then to 2,852,900 in 1992.

Alaska's total population is projected to grow at a slighter faster rate than for Washington state, although both will continue to see immigration from other states. Alaska's projected 1997 population is 674,100, and 3,217, 200 for WA.

The Aleutian West component has a 1992 population of 10,200, with an effective buying power of $177,135. Kodiak's population was 14,200 in 1992, which combined with its higher income level allowed it to have an EBI of $292,414. King County in Washington had a population of 1,507,319 in 1992. The EBI for King County was 31,414,429.

The ranking of the three remains the same but the difference becomes larger when comparing median 1992 household income, instead of per capita 1992 income. The Aleutian West had a per capita income of $17,366 and a median of $38,843. Kodiak had a higher per capita income of $20,733 and a median income of $50,306. While King County residents' per capita income of $20,104 was just slightly lower than in Kodiak; the median income was only $40,525.

Community Development Quotas

In 1992, the Western Alaska Community Development Quota (CDQ) set aside a portion of the total allowable catch of pollock, halibut, and sablefish for harvest by eligible western AK communities. 56 communities have organized to form the six regional CDQ groups that currently participate in the program.

A primary goal of the set-aside of part of the groundfish catch for western Alaska villages was to promote economic rural development through participation in the fishing industry. Profits from the CDQ must be spent to develop sustainable jobs.

Participation to date has occurred with corporate partners ranging from Trident Seafoods, Icicle Seafoods, Oceantrawl, Golden Age Seafoods, Pacific Orion, and Glacier Fish Co. For instance, Trident Seafoods has a resident preference policy to hire qualified individuals from the Aleutian Pribilof Island Community Development Association (APICDA). APICDA also offers vocational training, scholarships, and internships. Golden Age Fisheries have internships available to both high school and college graduates from the Coastal Villages Fishing Cooperative to work for them in Dutch Harbor, Bethel or corporate headquarters in Seattle. In addition to these programs, other cooperatives have initiated loan programs to provide a funding source for new businesses.[xxxii]

In addition to providing the local community concerns with another outlet for employment and returns by redirecting a portion of the quota through them, the fact that these set-asides can be fished after the regular season has closed provides another opportunity to extend their fishing season for those operations who choose to participate.

CDQs can provide useful information about differences in management & enforcement under a quota as compared to olympic style fishing. In addition, this program may provide some indicators of the value to the fleet of access to the raw fish. This type of information could be of use in the event the Council attempts to analyze an ITQ-type of system in more depth. How effective the program will actually be in generating increases in jobs or wealth remains to be seen. It takes some time to get these programs fully operational and there are often time lags before the full results can be observed.

Market Indicators

Product Forms

Surimi, fillets, and roe have been identified as the 3 major pollock processed products. All three are produced within each of the 3 processor categories (factory trawlers, motherships, and shore-based plants). Although there are differences in product mix within each category, there are some general differences that can be noted across categories.

Shore plants tend to be dependent on a narrower product range, with the inherent advantages of specialization and the associated risks of not being flexible enough to take advantage of relatively more favorable market conditions for other products. Based on the data in MLH, surimi is the primary product for these plants, contributing about 70% of the value of products produced over these 3 years.

While surimi also contributes the majority of total product value for motherships and factory trawlers in this time frame, it is not as dominant. Roe which, on a pound-for-pound basis, is the highest valued product in the BSAI pollock fishery, was produced by nearly all catcher/processors from the quota made available in the 'A' season. Approximately 30% of the value for catcher/processors comes from roe production with fillets contribute roughly another 20-25% for that fleet.

Shore-based production of surimi has generally trended upward over the past 5 or 6 years, while at-sea production peaked in 1990 at 136, 400 t and has been varying since within the range of 75,000 to 94,000 t. At-sea production of fillets also peaked in 1990-91, and the production of roe continues to be an important product for this segment of the industry.

POLLOCK SURIMI PRODUCTION
in metric tons

Year	At-Sea	Shoreside	Total
1994	85,983	88,680	174,663
1993	74,949	75,339	150,288
1992	93,548	71,314	164,962
1991	88,422	51,373	139,795
1990	136,346	40,604	179,950
1989	120,000	36,000	156,000

Source: NMFS[xxxiii]

The increased surimi production in 1994 was attributed to reduction in supplies, with inventories being 24% lower than the previous year (see cold storage holdings for more detail.) A total of 78,200 t of surimi was produced during 'A" season in 1994, with

75,900 coming from the Bering Sea and another 2,300 in GOA production. In 1993, the "A" total was 55,600.

As of mid-March, 1995, the preliminary production numbers were 11,606 tons of roe, 14,894 t of pollock fillets, and 68,947 t of surimi from the Bering Sea[xxxiv] U.S. production of pollock roe in 1994 was 12, 000 tons.[xxxv]

Estimates of Processed Product Production of Pollock

		Fillets	Surimi	Roe
Shorebased				
	1988	5400	27000	700
	1989	8700	31400	600
	1990	14000	43000	1500
	1991	11027	51374	2790
	1992	8380	71314	4567
	1993	15045	75284	1807
At-sea		Fillets	Surimi	Roe
	1988	28100	31200	560
	1989	30400	73200	6100
	1990	61100	136400	11100
	1991	61137	88470	18862
	1992	33941	91472	12943
	1993	52611	75103	10126

Data sources: Pers. Comm. Dave Colpo. AFSC, NMFS, March 1995 & Table 32 from 1994 Economic Status of Stocks, NMFS, AFSC.

Qualifier: Although NMFS is the primary source of most of the production numbers, both for aggregate total and division into at-sea and shorebased operations, the totals are reported in a variety of different publications and may involved differences in definitions or aggregate product forms. We found several different estimates when reviewing published sources and have provided the different summary estimates when we were unable to reconcile the totals.

Prices

Although it can be useful to look at average price trends and to make some comparison between prices received by the various sectors, it is important to remember that there is a wide range in prices for individual processors. To a certain extent, the level of quality is a choice producers make and those differences in quality or grade will influence the price received.

Summary of number of producers, average prices, & pollock production by product form (all areas) for at-sea producers

1990	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
Roe					
# of producers	45	6		14	
mt of product	11017.3	31.21		129.62	11178.2
price/lb	3.46	3.46		3.46	
Fillets					
# of producers	25	29	36	57	
mt of product	5240.2	16472.9	29032.4	10183.6	60929.1
price/lb	1.02	1.02	1.02	1.02	
Surimi					
# of producers	16	19	23	43	
mt of product	30841.1	43320.9	48282.9	14035.4	136480.
price/lb	0.71	0.71	0.71	0.71	
1991	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	
Roe					
# of producers	80	7	5	3	
mt of product	18734.1	123.71	2.77	1.17	18861.7
price/lb	4.51	2.35	4.51	4.39	
Fillets					
# of producers	54	35	37	7	
mt of product	184778.	11488.0	30914.9	257.45	61137.3
price/lb	1.3	1.34	1.34	1.54	
Surimi					
# of producers	24	20	23	8	
mt of product	36315.5	10945.6	39999.6	1209.01	88469.7
price/lb	1.46	1.46	1.46	1.56	
1992	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	
Roe					
# of producers	96	4		17	
mt of product	12,791.8	0.91		149.88	12942.6
price/lb	5.16	5.16		5.16	
Fillets					
# of producers					
mt of product					0
price/lb					
Surimi					
# of producers	47	30	30	7	
mt of product	39,245.3	18492.5	27617.9	6116.52	91472.3
price/lb	1.5	1.5	1.5	1.5	
1993	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	
Roe					
# of producers					
mt of product					0
price/lb					
Fillets					
# of producers	50	29	39	14	
mt of product	16096.6	1195.53	27048.6	8269.81	52610.5
price/lb	0.86	0.93	0.86	0.86	

Surimi					
# of producers	41	5	28	11	
mt of product	31083.5	443.38	38824.4	4752.04	75103.2
price/lb	0.76	0.76	0.76	0.76	

Data source: Pers. Comm. Dave Colpo, AFSC, 3/95

ROE

Roe, although small in quantity produced, is the highest value product from the pollock fishery. Prices increased steadily from 1990 to 1992, with the average grade price increasing from $3.46 to $5.16 per pound. Although the average 1993 was slightly lower, one could still get $9.00/lb for the best grade roe but only $3.00/lb for immature or overripe product. "Roe is what keeps everyone alive until next year." According to Wally Pereyra[xxxvi] and it was that concern for attempting to capture the roe when it was closer to maturity that has lead to the recent adjustment in the start of the "A" season fishery.

Ironically, the shift may have been too successful, in the sense that the yields have increased enough to make violation of the roe-stripping ban a concern. "According to Joe Blum of the American Factory Trawler Association, new NMFS regulations to prevent roe-stripping could leave trawlers with no option but roe pitching, or facing a fine if enforcement agents boarding a vessel determine that the amount of roe exceeds the legal 7% maximum." [xxxvii]

SURIMI

After more than doubling the average price received from 1990 to 1991, surimi prices peaked in 1992 at around $1.50 per pound. They then reversed their climb by dropping back down in 1993 to just above the nominal prices received in 1990. In 1993, Alaska pollock surimi remained under $1.00/lb wholesale all year long, with NMFS' average prices reporting in around $0.76/lb.

Cold Storage/Inventories

According to information presented in *Pacific Fishing's* Yearbook 1994, Japanese inventory (cold storage holdings) of surimi was 225 million pounds at the end of the month (EOM) for November, 1994. This represents a reduction of about 16% from the same month in 1992. In the U.S. 19.8 million pounds were available at the end of the month December 1994 as compared to 26.7 million in 12/92. For EOM July 1994 16.6 million lbs of surimi was in U.S. cold storage as compared to 21 million the same time the year before.[xxxviii]

Inventories of pollock blocks and fillets are also dropping as we enter 1995. At the end of January, there were 12.2 million pounds of fillets on hand as compared to 20.5 million one

year earlier. In addition, blocks on hand have decreased from 11.1 million to 8.4 million pounds over the same time period.

Exports

International trade has become increasingly important to the U.S. economy: imports are three times as high a share of national income as they were a generation ago. We live in a global market place. For Alaska, trade outside of the U.S. boundaries is important as well. "Alaska is the nation's largest exporter of fish, accounting for half of the US total seafood exports.

For 1993, the value of groundfish exported through the Alaskan custom district was far greater than the value that was shipped through Seattle or ports in other states. That ranking was even more true when looking at roe or surimi products. Some portion of the product shipped through Seattle's custom district is from Alaskan stocks, as well.

Port	AK	Seattle	Other
Groundfish	189	71	152
Roe	197	79	30
Surimi	267	76	31

From: Alaska Center for International Business, University of Alaska, Anchorage
Alaska Export Profile

Product Markets

Alaska Fish Exports By Major Categories (millions of dollars)

Year	1991	1992	1993
Shellfish	353	383	356
Salmon	212	433	348
Surimi	322	432	267
Roe	221	241	197
Groundfish	329	210	189
Misc.	64	127	85
Herring	47	61	40
Fishmeal	27	31	23
Total	1,575	1,919	1,505

Source: Alaska Export Profile, Alaska Center for International Business, University of Alaska, Anchorage

By far, Japan is the primary market for Alaskan fishery products. Between 82-91% of the annual totals were exported to Japan, with Korea being a distance second. This ranking for trading partners also holds true for total Alaska exports, with roughly 63% of all exports being send to Japan. While it remains the leading trading partner for consumption of fishery products from Alaskan waters, the lingering recession has lowered demand in Japan over the past couple of years.

Policy and Management Indicators

Management is clearly an evolving process and even with the best of intentions, errors will be made. We are limited by our understanding of the forces that drive these stock populations and by our inability to accurately anticipate technological advances and market forces that change the structure of the commercial operations over time.

What we do know is that people will modify their behavior in anticipation or response to a permanent shift in policy. The general objective or motivation of the players involved remains the same. All these [vessels] are is work platforms. They'll do whatever they have to do to survive."[xxix]

But these adjustments in behavior are not costless, nor is understanding and complying with the implications of all the regulations that decision-makers pass. Regulations themselves can also fail the BCA. Based on a comprehensive review of previous analyses, Hopkins (1992) conservatively estimated that annual compliance expenditures for all federal regulations were in the vicinity of $400 billion.[xl].

Information

Information about what management is doing is costly. If a firm perceives an increase in the risk associated with production or investment or access then it will cut back on those activities, increasing an economy's overall volatility.

There are substantial costs associated with creating a complex management environment that forces the participants to constantly acquire on and re-evaluate the implications of a changing regulatory environment. One may merely look at the increasing length of the Council's meeting schedule and agenda to see some evidence of which direction our system is currently moving to.

In addition, shifts in regulation can change the relative importance of data that are collected for ongoing management and can make the interpretation and use of what data are collected harder to achieve, with any statistical significance. Prior to this split in allocation, the quota were available to all on an open-access ("first come, first served") basis. The problems inherent in this type of fishery are well-documented. Now we have two smaller open-access fisheries as opposed to one larger one to be regarded as common property. Has the separating of the quota changed the rate of capitalization into this

fishery? It is hard to address many of the issues in any definitive manner when we have only two full years of data in which to observe the changes from implementation.

System Performance

Both the original problem statement and the one addressing the reauthorization deal with risk and stability.

Macro stabilization policies in the U.S. have aimed at creating a stable financial environment that will foster the rapid growth of domestic business activity, international trade, and foreign direct investment[xli] The elaborate array of programs that call for agricultural intervention in this country is often justified because of the inherent volatility of the market for those products.

In 1992, after the initial decision on the inshore-offshore allocation, Stan Simonson, owner of Golden Age Fisheries, said, "The real harm that's been done is not the onshore-offshore plan. It's the complete and total uncertainty that we've been thrown into by the council's actions. What we need is stability."[xlii] Stability in the fleet is also a concern for NMFS, which commissioned a study last year by Miller, Lipton, and Hooker that sought to "address the question of financial stability in the offshore pollock factory trawler fleet." In the original inshore-offshore analysis, it was clear that it was the shoreside sector that was perceived to be at-risk in the absence of regulatory action, and with the passage of the amendment's allocation, the negative impacts would fall primarily on the factory trawlers. Therefore, the report by MLH looked at some measures of stability in the financial health of that component of the industry in order to provide some insights into whether the negative consequences were greater than anticipated.

When management bounces back and forth between regulations that have the opposite results, it creates a chilling effect on business activity and increases the instability of the process. There needs to be some consistency of rights and criteria; otherwise resources are expended to constantly readdress and reallocate.

In addition, as companies incur more and more expenses to keep up with changes in the policy arena, it increases the likelihood that some of these companies will fail or be precluded from profitable opportunities. The government has reasons to keep both sides relatively healthy, as it has guaranteed loans to all segments of this fishery.

Option Value and Flexibility

Why do we want an inshore sector; why do we want an offshore sector? Both contribute differently—factory trawlers are more mobile, which might make them more efficient operations but ones that could be harder to enforce and inspect processing actions. Shoreside plants are perhaps better situated to comply with future potential full utilization policies. Is it 'better' to have an industry that is relatively homogenous or one that is

diverse? The answer to that is not apparent nor it is apparent what should be the optimal combination of criteria used to guide the long-term management of these dynamic and highly variable fisheries. These are issues that should be, hopefully, addressed as the Council moves to a more rational management system.

In this environment, there is value in ensuring that all the sectors are maintained in a relatively healthy state, in order to preserve the greatest flexibility. to the Council while it develops its Comprehensive Rationalization Policy. The possibility of irreversible negative effects makes current policy decisions particularly important since recovery from bad decisions may not be possible in the future. Once one segment of the industry has become so dominant in market share, that itself may act as a barrier to preclude the development or continued existence of another segment.

Other Related Topics

Foreign Investment

Foreign investment increases the amount of capital--equipment, buildings--in the host country, which raises labor's productivity and that nation's GDP. Workers are better off with more capital than with less and are usually indifferent to the nationality of the investor. "A Conference Board study of 108 foreign-owned companies in the US found that 80% are active in their local communities." In addition, charitable donations by foreign-owned companies equaled about 1% of their pretax profit--about the same as American companies[xliii]

Foreign companies have acquired interest in most segments of the commercial groundfish fisheries off Alaska. In the last analysis, that was a subject of concern that it might be used as a way for foreign firms to regain control of fish resources that have been "Americanized.", particularly with the vertical integration of the surimi producers in Japan.

With Japan being the primary source of demand and with firms seeking to enter a foreign market often encountering difficulties in meeting real and perceived differences in product and consumer standards, there can often be real benefits to have a tie or link to a firm in the Japanese domestic market. It is difficult to assess the overall effect of foreign investment in these particular markets.

Using BEA data, for the SIC classification that includes these processors (2092), the number of affiliates of foreign companies operating in Alaska varies between 9 and 14 from 1988 to 1991.

In 1991, 10,008 affiliates of foreign companies operating across the U.S. 2,287 of them were Japanese. Of the Japanese affiliates, the largest concentration was in California (1,108) but they had a presence in essentially every state. For comparison purposes, Japanese affiliates numbered 220 in Washington, 20 in Wyoming, 20 in North Dakota, and 42 in Alaska across all classifications. Alaska had a total of 159 affiliates from all countries operating within its borders.[xliv]

Exchange Rate

Because so much of the product finds its way to the Japanese market, the prices received by American commercial pollock operations will be influenced by the exchange rate of the yen to the U.S. dollar.

Japanese Yen/currency units per dollar

1988	1989	1990	1991	1992	1993	1994	1995
128.15	137.96	144.79	134.71	126.65	111.2	102.21	99.72

Notes: 1995 rate through February.
Source: IMF, International Financial Statistics, March 1995; Federal Reserve Bulletin March 1995 ed.

As shown in the chart, the yen has climbed steadily against the dollar since 1990. Since the publication of the exchange rate in February, 1995, it has continued to climb relative to the U.S. in recent months and is now at record post-WWII highs. A weak dollar is generally thought to help exports, by making our goods relatively cheap on the global market.

However, the flip side, is that the Japanese investors have seen a steady erosion in the value of their investment returns in the U.S.

Interest Rates

The Federal Reserve Board, in a preemptive strike against inflation and in an attempt to generate a 'soft landing' for the U.S. economy, raised interest rates 7 times in 1994. While rates are still relatively low historically, they are higher than they had been in recent years. The recent slide in the dollar has also lead to speculation that the Fed will need to raise rates again in the near future to prevent a further decline in our currency's value.

Higher rates should slow the overall national economy down and will increase the cost of repaying existing liabilities or acquiring further funding as most commercial loans are tied to a variable rate of interest.

Pacific Whiting Fishery

The desire to have more components of the process under the control of the local nation is not limited to just this fishery. Through history around the world, there have been attempts to redirect the value of the natural resources utilized so that local interests could extract as much as possible. They have often sought to control more than just the

harvesting of the raw fish. The simplest way to attempt control is to have the processing done within the nation's boundaries. For this reason, most countries in most fisheries have preferred shoreside plants.

For an example close at hand, one needs only to look at the hake (whiting) fishery off the coasts of Washington, Oregon, and California. At approximately the same time at the original inshore-offshore allocation analysis was being conducted in the NPFMC, the Pacific Fishery Management Council was moving to create an allocation between at-sea and shoreside interest in the whiting fishery that appeared to encourage shoreside processing.[xlv] Some of the same companies who operate as factory trawlers in the waters off Alaska, are involved in shore-side production of whiting in Oregon and British Columbia.

Ecosystem Management

Historically, in the Alaskan groundfish fisheries, we have managed using a single species approach. This has lead us to the notion of defining commercial operations by target fishery and sometimes allowing our management to sort individual operations in one fishery as separate and distinct from all others. Clearly this isn't true in this case. It is hard to crush the complexities of this industry into any particular definitional box.

There are some parallels that can be drawn from the economic/social structure that is dependent to the physical environment. The concept of commercial fisheries removing a complex of species from the Bering Sea was evaluated with long-term management implications discussed [xlvi] This formed the basis for the BS/AI Management Plan and its overall cap. While it describes a stock-by-stock quota-setting procedure, the BS/AI Management Plan also incorporates the premise that the Bering Sea is a closed system with limited species interchange between these stocks and the populations of the North Pacific. In addition, in recent years, the Council has been considering more of an ecosystem approach as our understanding of these interdependencies increases. The Council's Plan Teams have already proposed that the fisheries off Alaska be treated as three large marine ecosystems: the Bering Sea proper, the Aleutian Island chain, and the Gulf of Alaska.

Grumbine (1994) summarizes from a review of the literature that "Ecosystem management integrates scientific knowledge of ecological relationships *within a complex sociopolitical and values framework* toward the general goal of protecting native ecosystem integrity over the long term"[xlvii] (emphasis added). Ecosystems have three interrelated dimensions: the physical, the biological and the human dimension. The essence of sustainable ecosystem management is the balancing of all three dimensions to produce what people want while not preempting the options of future generations needlessly. The systems are interdependent, dynamic and evolving, as is the state of knowledge about them.

Clearly, there is much research that will need to be done before we can fully understand the implications of attempting sustainable development of the human environment with the integrity of the physical environment. Given that this allocation effectively created a closed commercial system in the GOA by focusing processing primarily in the community

of Kodiak, this might be a promising source of data to further our understanding of this type of approach.

Summary

Effects of regulations often take place over several years, and can occur both before an actual regulation is in place (some firms adjust their behavior in anticipation of a proposed action) and for several years after.

Given that the current allocation is expressed as a fixed percentage, it is unlikely that it will represent the optimum mix at all times. However, whether reading Council or NMFS analytical documents, journal articles, or trade publications on the original allocation, the current amendment has always been referred to as an interim measure, at which time it would expire and "an alternative and more permanent course of action to manage the fishery effectively would have been developed and approved."[xlviii] However, it is now clear that won't happen. The Council has begun the process of constructing a new system of management but given the magnitude of the value of the fisheries involved and the sheer number of people who all have stakes in the issue, it was unrealistic to expect it to have been fully developed and implemented at this point in time.

The relevant question with regards to this allocation now is can we learn something more by allowing the industry to develop with it or without? Can we obtain some information that will assist us to better evaluate the composition of the industry and the effectiveness of our regulatory system? What information can be utilized and incorporated into the CRP process?

The nature of the operations involved are changing. Although the gear types, areas, and some of the players have been around for a considerable time, the pieces keep shifting to re-arrange themselves into new target fisheries, product forms, areas, and structures. Some of the capital employed in the current pollock fishery was not employed as a fishing vessel ten years ago. Given the numerous forces that can simultaneously affect changes in the industry, it is often impossible to separate out the various causes...or even if an observed trend is cause or effect. In addition, a sector may be able to adjust for any one regulatory decision but the cumulative negative effects never get factored into the analysis. The accompanying table is a summary of all the regulations that have been enacted specific to the Bering Sea pollock fishery in the past few year. Players in this fishery have had to modify their behavior to comply with these and numerous other regulations. The more often we switch among management strategies, the more difficult it becomes to assess the effects.

For the 6 years preceding this allocation, we observed large rates of increase in the harvesting and processing share for the at-sea component. In addition, we have observed an initial surge, immediately following the allocation, in the shoreside component. It would not be unreasonable to predict that the at-sea component's harvest would increase if the allocation was allowed to expire. The expectation of increased financial health and

larger harvests would probably entice some of the vessels back into this fishery that have either exited to pursue alternate fishing opportunities or due to financial distress. Those will be repurchased and brought back as a lower-cost operator. This could cause an increase in capacity where the surplus would engender a new source of financial strain on some of the current participants.

All components of the industry have seen prices fall and inventories increase since the allocation took effect. That the markets seem to be firming up lends some encouragement for the next year or two for the overall industry. However, if interest rates continue to raise and increase some of these firms' costs, they may not have the liquidity necessary to continue and further exiting might take place. However, all segments continue to have profitable players in them and a blurring or a merging across these processing lines has occurred. Diversification has been going on in some companies, in part, in response to this allocation and the perceived direction to which management is evolving.

Both the notion of fairness and that of efficiency are closely linked with the concept of rights. Does a fisher has "rights" to a style of living, or "rights" to access to a given stock or a given location or a right to an equitable distribution of opportunities? We can have different optimal outcomes depending on to whom rights are perceived to belong. These are questions that cut across any one allocation issue and should be placed within the context of our management policies.

Summary of Pollock Management Measures In the Bering Sea/Aleutian Islands Management Area From 1989 through the Present.

FMP amd 14 1991	Prohibit roe-stripping of pollock Divide pollock TAC into roe and non-roe seasons
FMP amd 15 1993	Establish a Western AK CDQ program for pollock
FMP amd 16	Establish framework authority to specify amount of pollock 1991 that can be taken by bottom and midwater trawls
FMP amd 17	Establish the Bogoslof District (Area 518) for purposes of 1992 specifying a separate pollock TAC
FMP amd 18	Allocate the pollock TAC in the BS and AI management 1992 districts to inshore and offshore components
FMP amd 19 1992	Establish new fishery definitions for purposes of VIP standards and PSC allocations; pollock fishery was defined as a mid-water pollock fishery when pollock is ≥ 95% of the catch
Reg amd	Prohibit retention of Donut Hole-caught pollock by federally 1992 permitted vessels
Reg amd	Delay start of pollock non-roe season until June 1
Reg amd 1993	Delay start of pollock non-roe season until August 15
Reg amd 1993	Require increased observer coverage & certified bin measurements on vessels participating in the pollock CDQ fishery
Reg amd roe stripping	Reduce allowable percentage amount of pollock to further 1993 limit
Reg amd	Delay the start of the groundfish trawl "A" season until 1994 January 26

Source: Personal communication with Ron Berg, Fisheries Management Division, Alaska Region, NMFS, March, 1995.
Note: Several other management measures have been implemented that affect the pollock fishery, but which are not specific to pollock.

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14 April 1995

North Pacific Fisheries Management Council
PO Box 103136
Anchorage, AK 99510

fax 271-2817

Ladies and Gentlemen,

North Pacific Processors, Inc. supports the rollover of current inshore and off-shore allocations for the next 3 years.

I'm sorry that I cannot be in attendance at the meeting to make our statement of support in person.

Sincerely,

Ken Roemhildt

Ken Roemhildt
Superintendent

CDQs

CDQ - Related Employment for 1994 by Category

The following figures represent program totals for the six Western Alaskan CDQ groups:
Aleutian Pribilof Island Community Development Association
Bristol Bay Economic Development Corporation
Central Bering Sea Fishermen's Association
Coastal Villages Fishing Cooperative
Norton Sound Economic Development Corporation
Yukon Delta Fisheries Development Association

Employment Type	Number Employed	Wages Generated
Management/Administrative	45	$ 857,993
CDQ Pollock Fishing	268	$1,358,292
Other Fisheries	347	$ 454,307
Other Employment	460	$2,337,275
Total Employment	**1120**	**$5,007,867**

CDQ - Related Employment for 1994 by Region

Aleutian Pribilof Island Community Development Association

Employment type	*Number employed*	*Wages generated*
Management/Administrative	8	$ 71,000
CDQ Pollock Fishing	5	$ 29,389
Other Employment	73	$273,592

Bristol Bay Economic Development Corporation

Employment type	*Number employed*	*Wages generated*
Management/Administrative	4	$ 12,400
CDQ Pollock Fishing	86	$217,192
Other Employment	2	$ 8,045

Central Bering Sea Fishermen's Association

Employment type	*Number employed*	*Wages generated*
Management/Administrative	11	$173,396
CDQ Pollock Fishing	26	$101,673
Other Employment	52	$631,475

Coastal Villages Fishing Cooperative

Employment type	*Number employed*	*Wages generated*
Management/Administrative	5	$ 94,789
CDQ Pollock Fishing	40	$177,762
Other Employment	8	$ 31,951

Norton Sound Economic Development Corporation

Employment type	*Number employed*	*Wages generated*
Management/Administrative	13	$ 453,039
CDQ Pollock Fishing	85	$ 603,643
Other Fisheries	347	$ 454,307
Other Employment	276	$1,000,103

Yukon Delta Fisheries Development Association

Employment type	*Number employed*	*Wages generated*
Management/Administrative	4	$ 53,369
CDQ Pollock Fishing	26	$228,633
Other Employment	49	$392,109

1993 CDQ Employment

CDQ Group	Administration Wages	Administration Employees	Pollock Harvesting Wages	Pollock Harvesting Employees	"Other" Employment Wages	"Other" Employees	Total Wages	Total Employees
Norton Sound Economic Development Corporation	$359,554	10	$546,554	42	$26,447	33	$932,555	85
Yukon Delta Fisheries Development Association	$43,905	4	$210,843	39	$274,115	14	$528,863	57
Bristol Bay Economic Development Corporation	$77,462	3	$215,182	52	$10,472	1	$303,116	56
Coastal Village Fishing Cooperative	$129,114	4	$159,796	42	$197,669	114	$486,579	160
Aleutian Pribilof Island Community Development Association	$110,000	10	$85,000	16	$322,750	53	$517,750	79
Central Bering Sea Fishermen's Association	$190,843	5	$23,140	9	$60,000	18	$273,983	32
Total for All CDQ Groups	$910,878	36	$1,240,515	200	$891,453	233	$3,042,846	469

John Walsh DCRA - 8/22/94

"Economic Impacts of the 1992/93 Pollock Community Development Quotas"

June, 1994

Prepared by E3 Consulting, Anchorage, Alaska
Prepared for the Alaska Department of Fish and Game, Juneau, Alaska

Key findings of the 24-page report:

1. 556 people were directly employed as a result of the CDQ program in 1992 and 1993. This accounts for eight percent of all employment in the region and 18 percent of all private sector employment.

2. CDQ region residents participated in 375 different training exercises totaling 864 weeks. The training programs were arranged by the CDQ groups and were funded through CDQ proceeds.

3. Four of the six CDQ groups established educational endowment funds. In the first two years, $100,000 in scholarships was awarded to 64 students.

4. CDQ-related employment generated direct wages of $4.9 million and had a total wage effect of $8 million.

5. Jobs for western Alaskans resulted in a net gain for the nation by providing job opportunities in a region with chronically high unemployment rates.

6. The CDQ fishery allows the harvesting of the Bering Sea pollock resource to be conducted in a much more efficient manner with less waste and discards.

7. The CDQ proceeds have been carefully used. The savings will provide the CDQ groups with the foundation for a self-sustainable economic future. Through the end of 1993, the CDQ groups received $39 million in revenues. Also at the end of 1993, the CDQ groups had assets of $25.5 million and liabilities of $1.7 million.

Economic and Social Characteristics of Western Alaska's CDQ-Eligible Region							
Sources: 1990 Federal Census, U.S. Dept. of Labor/Alaska Dept. of Community & Regional Affairs							
	BBEDC*	CVFC*	NSEDC*	YDFDA*	APICDA	CBSFA	Total/
	Bristol By.	Y-K Delta	Norton Sd.	Yukon Dlt.	Aleutians	St. Paul	Average
PRE-CDQ PERIOD							
Demographics							
Number of communities	14	17	15	4	5	1	56
Total population	5,013	5,769	7,745	1,724	404	752	21,407
% Alaska Natives	49.90	94.50	90.60	94.50	83.70	66.10	79.88
Median age	29.2	22.8	23.6	21.3	30.6	28	25.92
% of children	32.3	42	40.8	44	35.3	25.7	36.68
% with H.S. diploma	79.9	53.9	56	54.6	58.4	61.7	60.75
Employment/Income							
Jobs per household	2.8	1.43	1.4	1.37	3.01	3.82	2.31
% unemployed	42.2	61.5	48.4	61.3	59.5	32.6	50.92
% of public jobs	20.2	47.9	41.9	48.9	15.5	56.2	38.43
Per capita income	$12,782	$8,916	$10,701	$6,519	$15,035	$15,115	$11,511
Median household incm.	$43,465	$17,196	$20,432	$21,388	$30,891	$39,922	$28,882
Poverty Status							
% below poverty level	10.1	40.9	33.6	25.1	21.6	7.1	23.07
Income Maintenance	$384	$791	$664	$808	$57	$58	$460
Trnsfr. Pymt. percapita							
Household Info.							
Median household size	2.9	4.2	4.04	4.28	2.87	3.68	3.66
% overcrowded	13.4	48.6	44.3	54.1	7.8	14.3	30.42
% without plumbing	21.4	80.8	71.4	74.3	9.6	0	42.92
% without kitchens	17.3	77.4	65.3	75	7.2	0	40.37
1993 CDQ PERIOD							
Revenues to 6/30/93	$4.18M	$8.34M	$6.85M	$1.83M	$5.76M	$3.19M	$30.15M
Employment							
1993 pollock wages	$215,182	$159,796	$546,554	$210,843	$85,000	$23,140	$1,240,515
Employees	52	42	42	39	16	9	200
1993 non-pllck. income	$10,472	$197,669	$26,447	$274,750	$322,750	$60,000	$892,088
Employees	1	114	33	14	53	18	233
Training							
Trained pollock	38	53	26	33	30	1	181
Trained non-pollock	—	140	—	54	20	—	214
*Members of the Western Alaska Fisheries Development Association							
H.Sparck/K.Ohls – 2/12/95							

ALASKA'S COMMUNITY DEVELOPMENT QUOTA PROGRAM: An Assessment of Community Awareness and Response

A Report of Research Findings

by

Mary C. Pete, M.A.
Department of Rural Development
University of Alaska, Fairbanks

for

Western Alaska Fisheries Development Association
WAFDA
Anchorage, Alaska

and

Bering Sea Fishermen's Association
BSFA
Anchorage, Alaska

April 1995

EXECUTIVE SUMMARY

This report highlights research findings from 388 telephone and personal surveys of residents of 49 communities along the eastern Bering Sea coast. Twenty-one interviews with federal and state officials and regional leaders involved in fisheries policy development also contributed to this study. In summer 1994, the Western Alaska Fisheries Development Association (WAFDA) and Bering Sea Fishermen's Association (BSFA) committed funding to the Department of Rural Development, University of Alaska Fairbanks, to conduct research on community understanding of and responses to the community development quota program (CDQ) in anticipation of the North Pacific Management Council's review of the program and eventual decision to sunset or extend the program. Hopefully, this study will inform the evaluation process.

The study focused on the first year-and-a-half of operation of the CDQ program. It was designed to get a broad regional overview of the level of community awareness and understanding, primarily through telephone surveys of three to five community officials and representative in each of the 50 WAFDA-member communities. We completed 128 surveys in 49 communities.

More importantly, the study aimed to present a community context for and general assessment of the results at this early stage of program implementation. We hoped to frame household strategies and personal choices derived from CDQ program opportunities in 1993 through surveys of a random selection of households in seven case study communities, as well as through surveys of as many individual participants as possible in CDQ-generated initiatives in those seven communities. We completed 219 household and 41 participant surveys in Alakanuk, Chefornak, Chevak, Dillingham, Egegik, Elim, and Teller.

This glimpse into the relationship between the CDQ program and participating communities found respondents are learning about a program that is still developing. They had predominantly positive expectations and a large majority hoped it would continue.

Among community officials surveyed, 82 percent knew something about the program: 40 percent knew a little, 25 percent were somewhat familiar, and 17 percent were very familiar with the program. Nearly 40 percent of community respondents thought program goals were definitely or somewhat achieved in their communities.

A larger proportion (48 percent) initially were unsure or did not think program goals were being achieved. They frequently attributed their lack of knowledge and the program's perceived lack of visibility to the developmental stage of CDQs. A small minority (6 percent) of respondents saw no valid goals achieved and attributed this to a lack

of confidence in those representing the program and/or opposition to Bering Sea pollock fishing.

Overall, 77 percent of community officials, including those who learned about the program through the survey, saw a positive future for the program -- it would grow into its role and eventually achieve its goals. The rest declined to offer predictions (17 percent) or expressed negative expectations (6 percent).

Households surveyed generally expressed awareness levels and future expectations of the program that paralleled those found among community officials. More importantly, households that reported CDQ-generated income derived between 15 to 89 percent, and an average of 38 percent, of their total 1993 income from CDQ employment. All case study communities are situated in census areas with the highest rates of poverty in the state -- a range of 28.2 to 42.6 percent of their populations live in poverty. So, income from CDQ initiatives was proportionately considerable in local terms.

The low number of individual surveys is a major limitation of the study; many participants were unavailable during data collection. Individuals contacted had a diverse history of involvement: most worked on processor boats, some received training but did not test clean for drugs and alcohol, others secured scholarships for college or loans for boats, or leased boats to fish.

Most individuals (83 percent) reported an improved economic outlook subsequent to participation in the CDQ program. One example of this positive turn was that the level of anxiety among the unemployed was reduced because participants expected to be able to return to work when they wanted or needed to. Available income data from participants reported 1993 earnings of $1,500 to $35,000 for between one to eleven months of CDQ-related work. These income levels were significant contributions to members' annual household incomes and reduced dependence on public assistance. Participants made local purchases of snow machines, all-terrain vehicles, and boats with CDQ-generated income.

Most individuals said they would go back to CDQ work and hoped the program would continue. For those who spent their entire educational career in their community, the opportunity to travel and learn through CDQ work offered important benefits equated with increased income. Timing of CDQ-related jobs fit into the annual subsistence cycle quite well, occurring primarily during the winter lull in hunting and fishing activities. Those who said they would never go back (15 percent) disliked the work, but not the program. Most thought it was a critical opportunity for rural Alaskans, especially for youth.

State and federal officials issued generally positive views of the CDQ program, even if they believed it was an experiment and its impact would end up largely symbolic. Some said government was basically out of ideas for rural Alaska development until

community development quotas emerged as options. Its strongest supporters thought CDQs should be expanded not just to other fish species, but also to include as diverse resources and opportunities as timber, tourism and job opportunities in the public sector.

In summary, three major messages emerged from this research about the CDQ program:

- It is a significant opportunity attempting to address critical needs, especially for young people in rural Alaska.
- Although information about the program is being disseminated, it is not getting through as well as it should. Lack of an established tradition of literacy among primarily Alaska Native communities necessitates a diverse outreach program, not primarily dependent on the written word.
- Beneficiaries (loan and scholarship recipients) of and participants (trainees and employees) in the program should be involved in education and recruitment; respondents believed they could be most effective, and certainly the most credible.

Some suggestions were community specific: "change our community representative; get more boats; start a newsletter for our group." Others were consistent across communities and groups: "provide more training; hire workers on rotation and pay more." A few spoke to specific incidents: "emphasize the zero-tolerance rule so workers don't return with booze to bootleg."

Most respondents, even those decidedly neutral, want to see the program extended and/or expanded in quota, time, species and community participation. Access to training for jobs was seen as one of the most advantageous aspects of the program. Its goals of self-sufficiency and increased opportunities for wage employment were highly commended.

Given that the target population is primarily Alaska Native with persistent cultural values and patterns which may introduce unique challenges to implementing new initiatives, the CDQ program has accomplished much in its first year-and-a-half of operation. In comparison, the 1971 Alaska Native Claims Settlement Act (ANCSA), a development-oriented program designed for the same constituency, appears to suffer from a level of disinterest and lack of knowledge about its provisions and impacts among a new generation of Alaska Natives. In conclusion, continual and consistent education is one of the primary charges for initiatives like ANCSA and the CDQ program.

D. Lestin

Presentation to

The North Pacific Fishery Management Council

Objective: Recognition of Southeast Alaskan coastal communities as eligible for an allocation of the Bering Sea pollock CDQ.

- History of sharing resources
- Inequity in the application of existing program
- Need for economic development
- Similar to currently recognized villages
    - Proximate to resource
    - Fisheries dependent
- Will not require a major change to the existing program
- State to determine percentage of allocation
- Include in document submitted for public comment

Sealaska

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Suite 400
Juneau, Alaska 99801-1276
(907) 586-1512
FAX (907) 586-9214

March 29, 1995

Mr. Richard Lauber, Chairman
and Members of the
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Mr. Lauber:

On behalf of the coastal communities of Southeast Alaska, I submit for your consideration a request for an allocation of the Community Development Quota for the Bering Sea Pollock fishery.

We believe that the primary objective of the Community Development Program is to utilize a small portion of the vast Alaskan marine resources to assist in building a sustainable economic base in the Alaska coastal communities. With the guidance and oversight of the appropriate Alaskan State and Federal agencies, along with an industry joint venture partner, the coastal communities of Southeast Alaska can utilize this quota to provide the capital necessary for continued economic development.

With the closure of many sawmills in Southeast Alaska and with continuing federal and state restrictions on timberlands, the coastal communities of Southeast Alaska have few natural resources to develop their economies. Unemployment rates are high. The allocation of a Community Development Quota would assist these communities in developing the infrastructure and the human resources necessary to establish a sustainable

economic base. In addition, such development would provide opportunities for employment as well as educational opportunities.

We believe that Southeast Alaska must be considered for a Community Development Quota in order to provide a fair and equitable allocation of the resource. There is a long history and tradition of sharing the Alaskan resource base by the villages. This history of sharing by Alaskan communities is documented in the Alaska Native Claims Settlement Act, Section 7(I) and (j). ANCSA requires the sharing of certain natural resources.

We believe that the Community Development Quota program and the resulting regulation should be written in such a way as to allow the communities of Southeast Alaska to participate.

The communities of Southeast Alaska are located in close proximity to the resource and the residents have a sincere desire to improve the quality of life in the communities in which they live. Inorder for fishermen and processors to have a viable industry, more and different species of fish must be harvested throughout the season. It is important that the opportunity to sustain the rural communities, and the tradition of fisheries, as commerce, be continued from one generation of Alaskans to another. The alternative is to face an "economic desert" at the door step of the coastal communities through privatization of resources. This should not be allowed to occur.

We urge your consideration of this request as a policy matter before the Council. If we can further this request by bringing Southesterners to a meeting, we would be happy to assist.

Sincerely,

SEALASKA CORPORATION

Robert W. Loescher
Executive Vice President

cc: Senator Ted Stevens
Senator Frank Murkowski
Congressman Don Young
Governor Tony Knowles
S.E. Legislators
SEPA
Dan Leston
Leo H. Barlow
Bruce Keizer

April 20, 1995

Mr. Richard Lauber, Chairman
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, Alaska 99501

Re: Inshore Offshore & Pollock CDQ Analysis

Dear Mr. Lauber,

We are writing the North Pacific Fishery Management Council as a group to urge the current package of analysis regarding reauthorization of the Inshore/Offshore and pollock CDQs (amendment 18/23) be sent out for public comment in its present form. The package presents a comprehensive analysis which should provide an appropriate basis for Council decision making in June. As of this writing the analytical package has been presented to both the SSC and AP. Both Council advisory bodies are recommending the package be circulated for public comment. The SSC was complimentary of Council staffs' efforts which reflect a thorough analytical approach. We support the SSC and AP recommendation that the package go out for comment as it appears to us the analysis package comprehensively considers the two relevant alternatives presented.

In addition to the staff analysis, the Council has received A Summary Review of Policy Measures and Relevent Performance Indicators As Applied to the North Pacific Inshore/Offshore Allocation, prepared by Economic and Environmental Analysts. The report has been copied, made available to the public by Council staff, and was also considered by the SSC and AP. We think this report contributes additional policy information relevant to an informed discussion of the Inshore/Offshore reauthorization question. The document largely focuses on the value of maintaining stability in the fishery and the multifaceted benefits such stability can bring to both industry and the ultimate CRP decision.

As representatives of Bering Sea/Aleutian Islands and GOA fishermen, processors, and CDQ communities we believe it is of paramount importance, to maintain stability in our fishing industry through a consistent Inshore/Offshore and pollock CDQ regulatory scheme. Preserving stability through the Inshore/Offshore and pollock CDQ allocation will also make it much easier for the industry to effectively move towards comprehensive rationalization of the fisheries. The general business climate will improve as all sectors will know they can rely upon a major component of the present regulatory scheme. The

present allocation has only been in place for a relatively short time. Extension of the Inshore/Offshore allocation will also generate a more useful data base and performance history for both inshore and offshore industry participants. As a result, the Council and NMFS will ultimately learn more about each sector's CRP needs as the existing allocation continues for an additional period. This in turns should allow the Council to fashion a more useful comprehensive rationalization program.

Reauthorization of Inshore/Offshore and pollock CDQs will preserve both the offshore and onshore sectors which are presently viable, in the current state of equilibrium. Ultimately this keeps your CRP options open. The present Inshore/Offshore allocation in all its components including the CVOA, CDQ, and quota splits has enabled both sectors of the industry to operate and remain in a healthy condition.

The package contains reasonably based impact projections under Alternative 1 (18/23 to expire) as well as Alternative 2 (Reauthorization of 18/23). The Council document examines benefits and costs of maintaining stability in the fishery and the regulatory system through continuation of all components of the existing allocation. The Council document is constituted by analysis variously expressed through cost-benefit impacts, distributional impacts, fisheries impacts, impacts regarding bycatch and marine mammals, coastal and marine habitats, the need to continue the CVOA, E.O.12866 findings, impacts on small entities, stability implications, examination of CDQ program benefits, and community impacts. We believe the staff examination of each of these aspects of the alternatives and the record it presents, in combination with the public comments you will receive, should provide a sound basis from which the Council can thoroughly consider the question before it.

Thank you for considering our views.

Alaska Draggers

APICDA

United Catcher Boats

FVOA

Midwater Trawlers Coop

Trident Seafoods

Pacific Seafood Processors Association

UniSea

East Point Seafoods

Coastal Villages Coop

Lower Yukon CDQ Communities

Central Bering Sea Fish. Ass

Unalaska Native Fishermen's Association

Norton Sound Ec. Dev. Ass.

Bristol Bay Econ. Development Association

Cook Inlet Processors

WESTWARD SEAFOODS, INC.

ALASKA GROUNDFISH DATA BANK

Western Alaska Fish. Devel. Association

UNITED FISHERMEN'S MARKETING ASSOCIATION, INC

AFTA

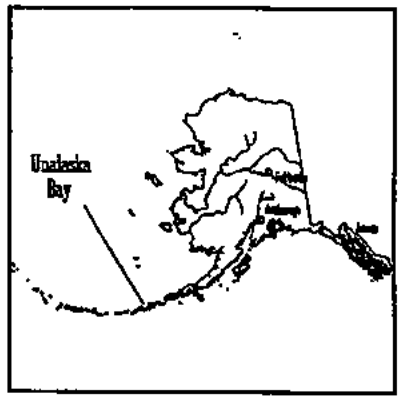
Greater Unalaska Bay

WATER QUALITY CONCERNS AT A GLANCE:

Waterbody:	Unalaska Bay and Continuous Inshore Waters (a.k.a. "Greater Unalaska Bay")
Segment Identifiers:	30102-601, -602, -603, and -605
Parameters of Concern:	Dissolved Oxygen, Benthic Waste Accumulations, Sewage and Petroleum Products
Uses Affected:	Aquatic Life, Fisheries, and Seafood Processor Water Supply
Sources:	Seafood Processors, Municipal Wastewater Treatment Plant, and Fishing Vessels and Other Ships

WATER QUALITY-LIMITED WATERBODIES:

Waterbody:	South Unalaska Bay
Segment Identifier:	30102-603
Parameters of Concern:	Dissolved Oxygen and Seafloor Waste Accumulations
Primary Use Affected:	Aquatic Life
Sources:	Seafood Processors and Municipal WWTP
BOD Wasteload Allocation:	245,902 lbs BOD5/day
Settleable Solids Wasteload Allocation:	2,732,712 lbs settleable solids/yr
Waterbody:	Iliuliuk Harbor/Bay
Segment Identifier:	30102-602
Parameters of Concern:	Petroleum Products
Primary Uses Affected:	Aquatic Life and Seafood Processor Water Supply
Sources:	Fishing Vessels and Other Ships
TMDL Determination	Intermittent spills and illegal releases are the source of pollution; these issues are not suitable for wasteload assessment and allocation and must be dealt with through education and enforcement.



BACKGROUND INFORMATION

Water Quality Concerns

Unalaska Bay and its continuous inshore waterbodies (hereafter, "greater Unalaska Bay") have highly valued resources in their harbors, scenic beauty, aquatic life and habitat, fisheries resources, and industrial water supply. Increased discharges from seafood processing operations over the past decade have prompted concerns about water quality in greater Unalaska Bay. Waste products from seafood processors are discharged directly into the waters of the bay. These discharges are responsible for accumulations of seafood wastes on the seafloor adjacent to outfall pipes and contribute to the seasonal depression of dissolved oxygen levels in receiving waters.

To reflect broad, area-wide water quality issues, this water quality assessment considers five waters identified in the "Impaired Waterbody Listing" of Alaska's 1992 Statewide Water Quality Assessment (§305b report).

Table 1. Waterbodies of Concern

ID Number	Waterbody
30102-603	Unalaska Bay, south
30102-605	Captains Bay
30102-602	Iliuliuk Harbor
30102-602	Iliuliuk Bay
30102-601	Dutch Harbor

Three of these waterbodies (Iliuliuk Bay, Iliuliuk Harbor, and south Unalaska Bay) were identified by the Alaska Department of Environmental Conservation (ADEC) in 1992 as requiring water quality-based controls (§303d list). The pollutant of concern is south Unalaska Bay is settleable seafood waste residue. The pollutant of concern in Iliuliuk Harbor and Bay is petroleum products.

Location and Topography

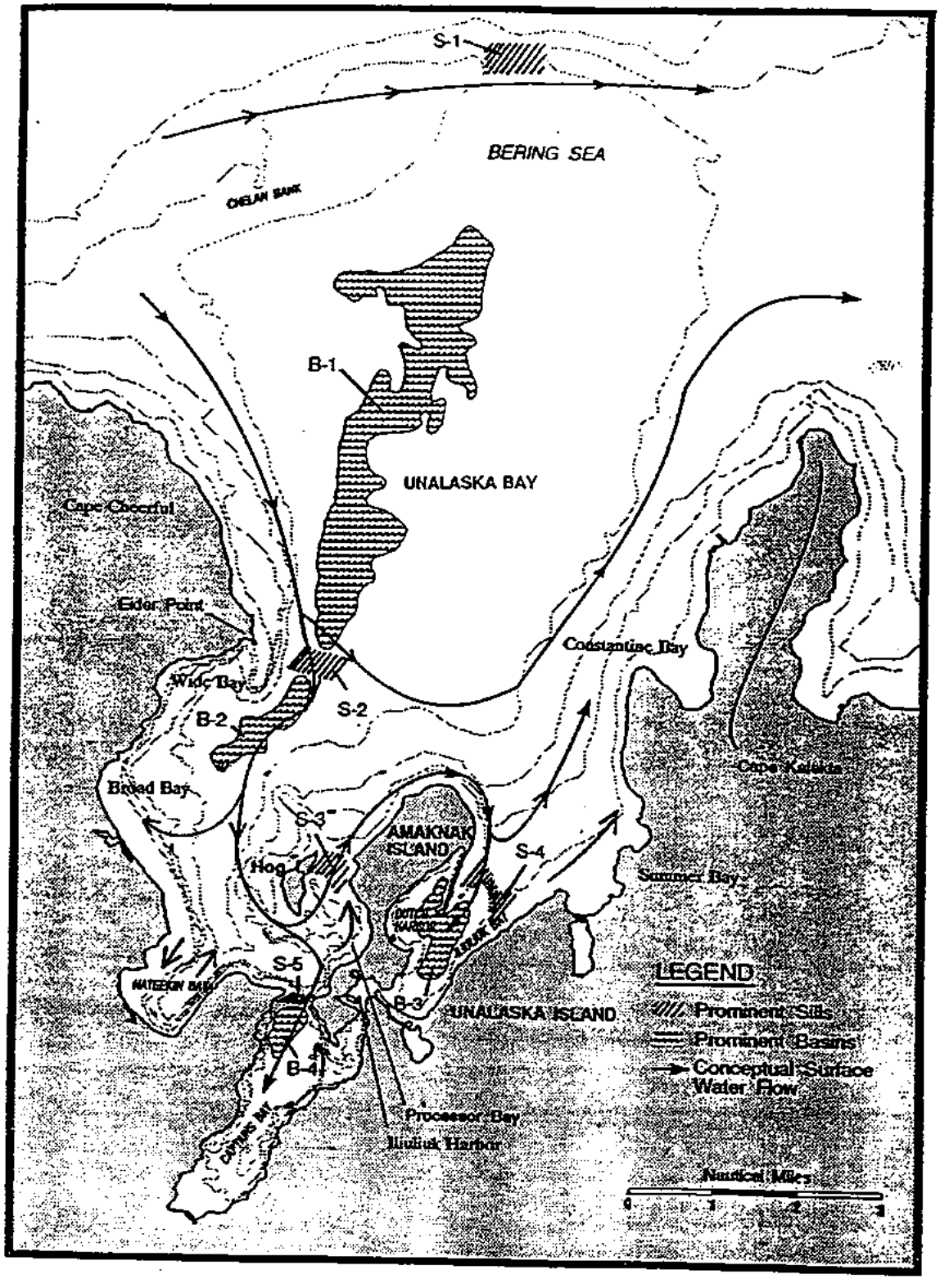
Greater Unalaska Bay is located on the north, or Bering Sea side, of Unalaska Island in the eastern Aleutian Islands. It lies at roughly 54.0°N latitude, 166.5°W longitude. The bay is the foremost safe harbor and anchorage in the eastern Aleutian Islands and shelters both fishing and cargo vessels. It is about 740 air miles southwest of Anchorage and supports a national airport along its limited coastal bench.

Greater Unalaska Bay is 10.4 nautical miles wide at its mouth from Cape Cheerful on the west to Cape Kalekta on the east. It is roughly 11.6 nautical miles from the mouth of the bay to its head at the south end of Captains Bay. Greater Unalaska Bay is approximately 87 square nautical miles in area and has roughly 50 nautical miles of shoreline.

The surficial topography of its complex shoreline and islands divides greater Unalaska Bay into a number of continuous waterbodies (Figure 1). Wide Bay and Broad Bay are defined by shallow indentations in the western shore of greater Unalaska Bay. Nateekin Bay and Captains Bay are established as deep indentations in the southern shore of the bay. Iliuliuk Harbor is a shallow and largely enclosed portion of greater Unalaska Bay on the southeast side of Amaknak Island. Iliuliuk Bay lies between Amaknak Island and the eastern shore of the bay. Dutch Harbor lies adjacent to Iliuliuk Bay and largely within the shore of eastern Amaknak Island. Summer Bay is defined by a series of shallow indentations in the eastern shore of greater Unalaska Bay. Lastly, Constantine Bay is established as a deep indentation in the northeastern shore of the bay.

Greater Unalaska Bay's subsurface topography, or bathymetry, is complex, consisting of five prominent sills (i.e., pronounced elevations in the seafloor) and four water basins (i.e., pronounced depressions; Figure 2). The northernmost basin is established by Cheland Bank in the north and extends from the Bering Sea into the mouth of Unalaska Bay. The second basin, in Unalaska Bay proper, extends from the mouth adjacent Eider Point along the western portion of the bay and divides into Nateekin Bay to the southwest and south Unalaska Bay (a.k.a. "Processor Bay"). Captains Bay is a very separate and distinct basin enclosed by steep coast on three sides; it is separated by sills across the west and east entrances of this bay. Iliuliuk Bay and Dutch Harbor constitute a single basin bordered by a sill extending from the Dutch Harbor spit east to Unalaska Island on its

Figure 2. Locations of sills, basins and general depth-averaged flow under no wind conditions in greater Unalaska Bay (modified from Evans-Hamilton 1993, CH2M-Hill 1994).



north side and by the convergence of Amaknak Island and Unalaska Island and the shallower Iliuliuk Harbor to the south.

This information suggests that the bays are typical of deep, steep-sided fjords with shallow sills across their entrances. Circulation in the deep basins of such bays is seasonally restricted due to a stratified water column and the absence of appreciable currents in the bottom layer. Such basins may act as traps for settleable solids and nutrients and experience seasonal oxygen depletion.

Climate

The eastern Aleutian Islands are characterized by a maritime climate and are well-known for adverse, and oftentimes, extreme weather conditions. Low-lying fog, overcast skies, rain, and drizzle dominate weather conditions along the islands due to air masses over the warmer Pacific Ocean encountering chilled air over the colder Bering Sea. Average annual precipitation is approximately 60 inches, some of which falls as snow.

Normal summer air temperatures range from 10° to 16° C and normal winter temperature range from -4° to 2° C. High summer temperatures may attain 29° C for brief periods, and low winter temperatures may reach -12° C. Inclement weather conditions are common, and are characterized by low cloud cover which often interferes with airline transportation in the area. During brief periods of cold winter weather, ice up to five centimeters thick may be found on Iliuliuk Harbor, but the other bays in the area remain ice free throughout the year.

Unalaska weather data indicate moderate to strong winds throughout the year (CH2M-Hill 1994, Evans-Hamilton 1993). Winds in winter and during storms are usually strong. Average wind speeds range from 10 to 12 mph between October and April and range from 6 to 9 mph between May and September. Wind velocities greater than 25 mph occur in every month of the year and velocities of more than 50 mph are not uncommon. Most gales originate from the north and east in the fall and winter. Local topography plays a major role in determining wind speed and direction.

Oceanography and Stream Flows

The waters of greater Unalaska Bay are both marine (outer) and estuarine (inner). Surface salinities range from around 20 ppt to nearly 33 ppt. Bottom water salinity is less variable, ranging from 25 ppt to 33 ppt.

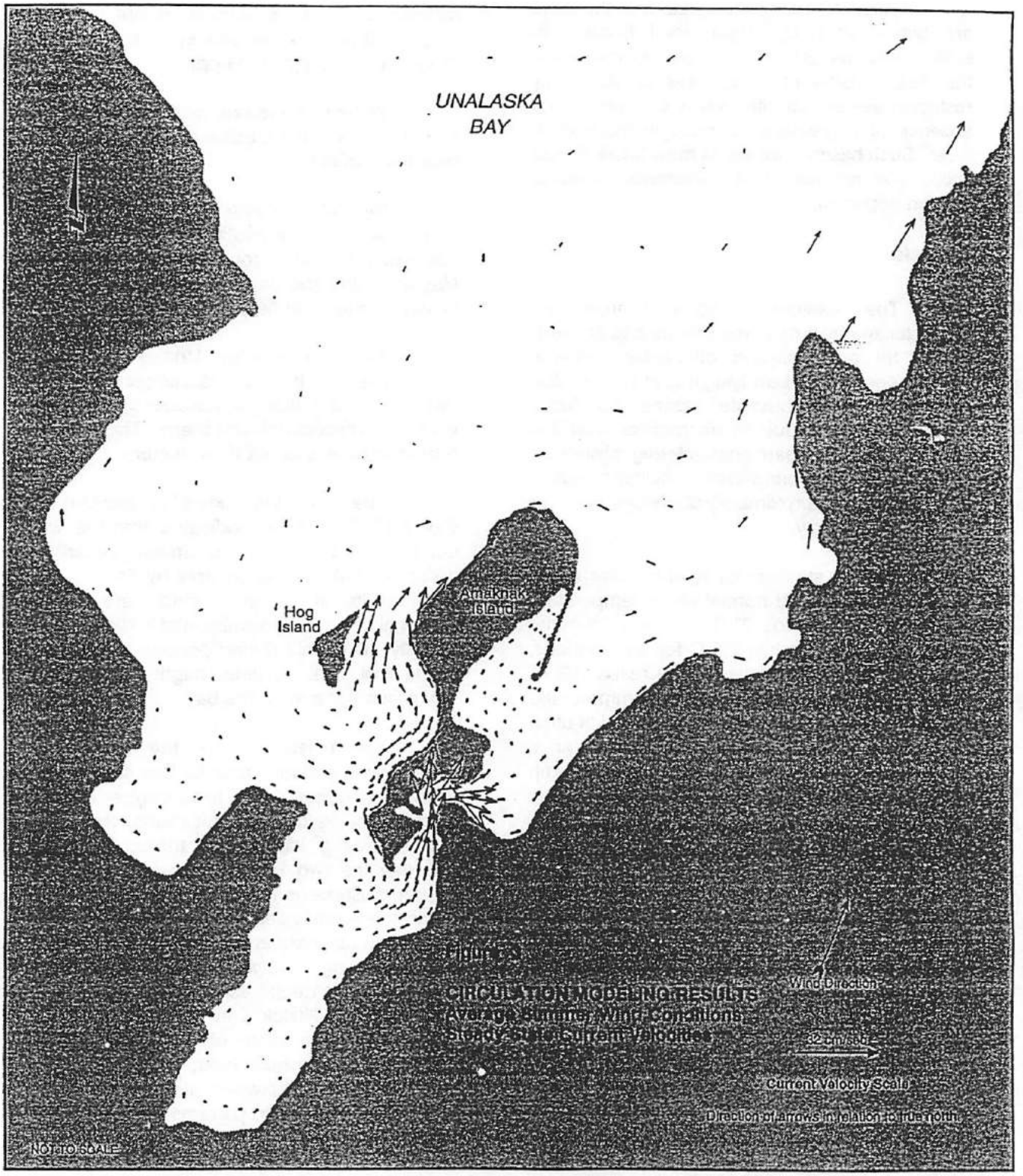
Water temperatures in the bay range from 3° to 10° C near the surface and from 3° to 7° C near the seafloor.

Vertical gradients of temperature and salinity which cause stratification of marine and estuarine waters are strongly seasonal, forming in May and June and becoming more pronounced in July through middle to late September.

Tides in greater Unalaska Bay are relatively small. The mean tidal amplitude (vertical distance from mean high water to mean low water) is approximately one meter. The maximum tidal amplitude is about three meters.

The circulation study of greater Unalaska Bay (CH2M-Hill 1994) indicated that the water circulation with the bay is driven primarily by winds (≈90%) and secondarily by tides (≈10%). This results in currents which are strongly seasonal and weakly semidiurnal in direction and velocity. It is only during periods of low-speed winds that tidal currents might dominate the circulation patterns of the bay.

On a large scale, the modeling of circulation in greater Unalaska Bay indicates that wind-driven currents are 5 to 15 cm/sec along the western shores of Amaknak Island, the eastern shore of Hog Island and through the pass between the two islands, through the eastern mouth of Captains Bay and Iliuliuk Harbor, and along the northeastern shores of Unalaska Bay proper. In other areas in the bay, the wind-driven currents range between 1 and 5 cm/sec. Currents in the deep basins of Captains Bay and Dutch Harbor-Iliuliuk Bay may be less than 1 cm/sec during much of the year (CH2M-Hill 1994; Evans-Hamilton 1993; SAIC 1992). The major difference between summer and winter wind-driven circulation patterns is the changes in current direction in many sections of the bay (Figures 3 and 4).


UNALASKA
BAY
Hog
Island
Amaknak
Island
Wind Direction
Current Velocity Scale
NOT TO SCALE

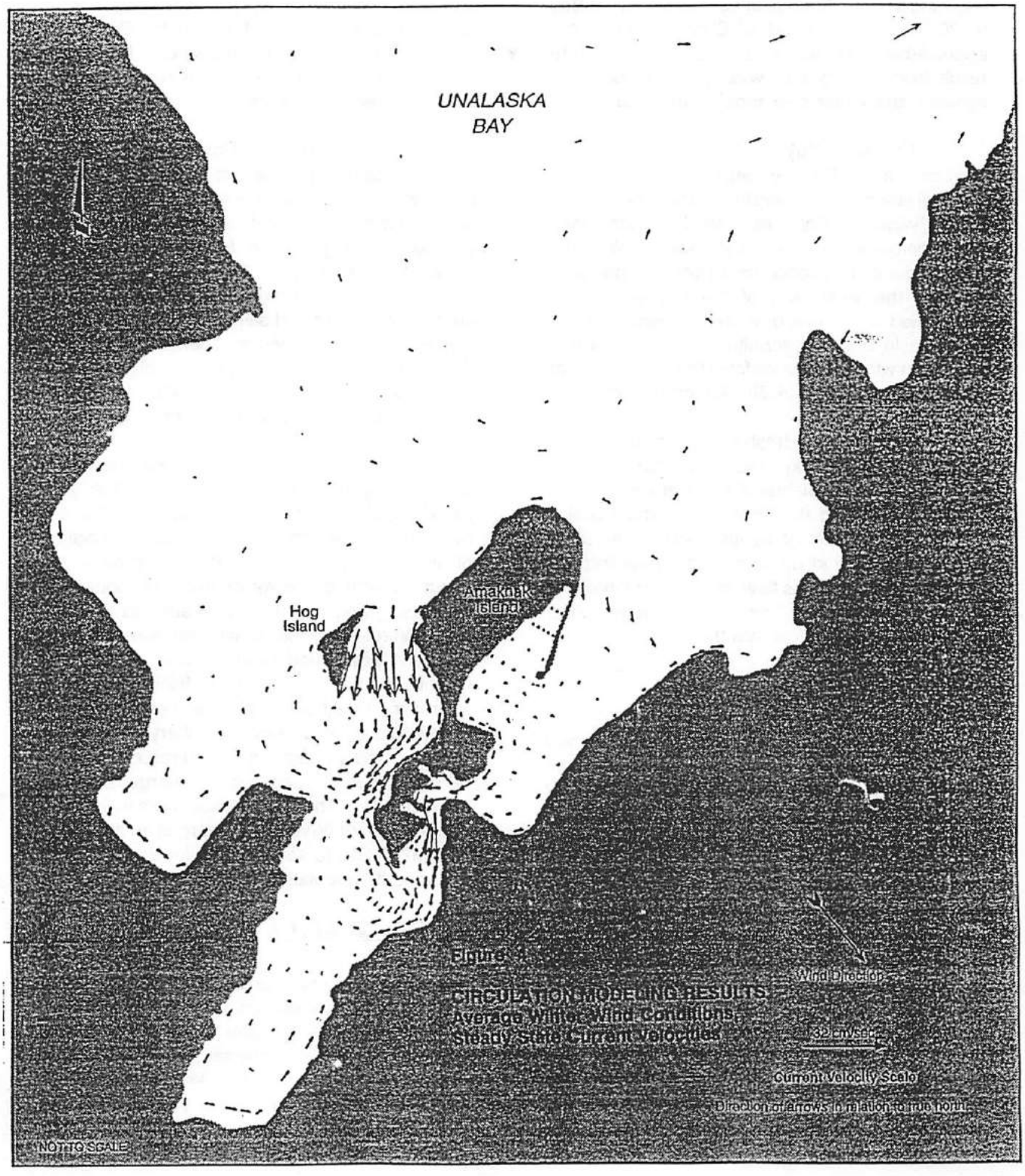


Figure 1
CIRCULATION MODELING RESULTS
Average Winter Wind Conditions,
Steady State Current Velocities

The circulation study of greater Unalaska Bay suggests that the flushing time required for 95% of the water at a given location in the bay to be replaced by ocean water from outside of the bay ranges from 20 days in central Unalaska Bay to 70 days at the head of Captains Bay. No appreciable differences in flushing times appear to result from changes in wind patterns between summer and winter over most of the year.

Captains Bay and Iliuliuk Bay-Dutch Harbor are the exceptions to these generalizations on flushing time. The replacement of the water in Captains Bay 113 meter-deep basin below a 29 meter deep sill requires the development of a pronounced hydraulic pressure head at the south end of the bay during the unstratified conditions of winter. Flushing of this deep basin occurs intermittently during strong, persistent winds or storms from the north. Similar processes renew Iliuliuk Bay-Dutch Harbor.

Three large freshwater streams enter greater Unalaska Bay, the Makushin River of Broad Bay, the Shaishnikof River at the head of Captains Bay, and the Town River which drains Unalaska Lake east of Iliuliuk Harbor. All three streams are utilized by salmon for spawning. At least five other streams flow into greater Unalaska Bay year-round and more than thirty other streams seasonally flow into the bay.

Urbanization and Industry

The greater Unalaska Bay watershed contains the City of Unalaska and its adjacent communities, including the well-known Port of Dutch Harbor. The area's economy is based primarily on fishing and seafood processing and the servicing of this industry. With the best harbor in the eastern Aleutians and access to the fisheries of the Bering Sea and the Gulf of Alaska, the City of Unalaska has the strongest economy in the Aleutian Islands (AWCRSA 1989; City of Unalaska 1993). The processing of salmon, herring, and whale was established in greater Unalaska Bay in the early 1900s. Following World War II, interest in the fishing industry increased and diversified. By 1979, the Port of Dutch Harbor was a leading port in the U.S. fishing industry, both in terms of value and tonnage of seafood freight.

Since 1989 the Unalaska area has processed more tonnage of seafood than any other port in the United States (NMFS 1992). Once known primarily for its extensive Pacific cod and crab fisheries, Unalaska's seafood tonnage is now dominated by pollock products. During the past decade, seafood processors in greater Unalaska Bay have processed more pollock than all other species combined.

Greater Unalaska Bay is the site of six onshore seafood processors and a few floating processors. In 1993 these facilities produced approximately 56,460 metric tonnes (MT) of surimi (minced pollock), 23,906 MT of fish and bone meal, 11,597 MT of crab, 5,484 MT of bottomfish, and 1,091 MT of herring, as well as smaller amounts of halibut and salmon (Table 2). During average production years, seafood processors discharge an average of approximately 140 MT of biochemical oxygen demand (BOD) into south Unalaska Bay and Captains Bay on a daily basis.

The population of Unalaska has varied considerably over time. Since 1939, the year-round population has ranged from around 300 to over 3,000, depending on the economic condition of the fishing industry. Recent growth has occurred with the diversification of bottomfish processing and marine vessel support services. The non-resident, seasonal component of the Unalaska population is significant. During the height of the commercial fishing seasons, approximately 8,000 people live in and around the City of Unalaska. The city's sanitary wastewaters receive primary treatment (1 mm rotary-screening of waste solids) prior to discharge to south Unalaska Bay. The City of Unalaska's wastewater treatment plant (WWTP) discharges an average of 0.36 MT BOD into south Unalaska Bay per day in servicing its population.

WATER QUALITY ISSUES

The waters of greater Unalaska Bay have historically been abundant in aquatic life. The bay offers a productive habitat as well as provides food for juvenile life stages of many fish and invertebrate species, such as king crab, cod, and salmon. The bay is also a protected setting which supports a variety of activities including commercial, sport and subsistence fishing.

Table 2. Estimated 1993 production and product wastes of seafood processors in greater Unalaska Bay (metric tonnes).

*Note: The waste solids from surimi and bottomfish are transferred within the plants at Alyeska Seafoods, UniSea and Westward Seafoods to become the "raw product" of the meal reduction process. Alyeska Seafoods and UniSea also transfer tanner crab waste solids for meal reduction.

Facility	Surimi	Crab	Bottomfish	Meal*	Other	Total Waste
Alyeska Seafoods						
Raw Product	54,430	3,659	2,526	45,491	426	
Finished Product	13,207	2,402	2,145	5,393	426	
Product Wastes	41,223	1,257	381	40,098	0	40,098
Dutch Harbor Seafoods						
Raw Product		1,144				
Finished Product		704				
Product Wastes		440				440
East Point Seafoods						
Raw Product		1,502				
Finished Product		927				
Product Wastes		575				575
Royal Aleutian Seafoods						
Raw Product		4,551	362			
Finished Product		1,628	307			
Product Wastes		2,923	55			2,978
UniSea						
Raw Product	114,664	4,451	3,177	76,806	486	
Finished Product	24,684	2,828	1,722	11,074	447	
Product Wastes	89,980	1,623	1,455	65,732	39	82,023
Westward Seafoods						
Raw Product	84,072	4,964	1,703	67,377	392	
Finished Product	18,569	3,108	1,310	7,439	392	
Product Wastes	65,503	1,856	393	59,938	0	60,313
Totals						
Raw Product	253,166	20,271	7,768	189,674	1,304	
Finished Product	56,460	11,597	5,484	23,906	1,265	
Product Wastes	196,706	8,674	2,284	165,768	39	186,427

Water quality is a major concern in Unalaska because of the high resource value placed on the bay and its marine life and the quality of the water supply for seafood processors. Increased discharges from seafood processing operations over the past several decades have heightened these concerns. An Area Meriting Special Attention (AMSA) plan is being developed for Unalaska Bay by Aleutians West Coastal Resource Service Area which pointedly responds to water quality issues and addresses seafood processing discharges (AWCRSA 1993).

Parameters of Concern

Unalaska Bay has been identified as water quality-limited due to violations of the dissolved oxygen and residues standards.

Ambient water quality monitoring indicates that receiving waters in greater Unalaska Bay experience low dissolved oxygen levels at times from July through October. During this 4-month period, discharges from seafood processors have a major effect on water quality in the bay.

Indications of significantly impaired water quality conditions have recently been observed in the Unalaska area. Near the end of July 1991, a fish kill was observed in Unalaska Bay on the west side of Amaknak Island near the seafood waste outfalls. The fish kill involved both pelagic and benthic fish species and bottom invertebrates (e.g., sea urchins). The cause of the kill was not determined.

In late August 1992, dead and dying sub-adult red king crab were observed on the east shore of Captains Bay. One biologist attributed the cause to a combination of poor water quality (elevated water temperatures and low dissolved oxygen) and heavy gill fouling by a noxious diatom.

Another concern identified during the assessment process has been the accumulation of seafood processing wastes on aquatic life. Past studies have documented biologically stressed benthic communities in the vicinity of seafood processing outfalls. Burrowing and attached benthic organisms have been observed to be completely eliminated from areas covered by wastes deeper than about one centimeter. The scientific literature indicates that infaunal communities are significantly altered in sediments which are covered by persistent accumulations of organic wastes (e.g., Pearson and Rosenberg 1978; Fenchel 1987).

Although no specific numeric criterion for benthic accumulations of seafood processing waste have been established, the intent for protection of aquatic life is clear. Studies have documented biologically stressed benthic communities in the vicinity of seafood processing outfalls (e.g., Karna 1978). Solids from seafood processing discharges have covered and destroyed bottom areas historically used by aquatic life. Recent monitoring of the seafloor in greater Unalaska Bay indicates that at least nineteen acres are impacted by seafood waste solids of depths greater than one centimeter.

Beneficial Uses Affected

The designated uses for marine and estuarine waters in greater Unalaska Bay are identified in Alaska's Administrative Code (AAC). Uses include water supply, aquatic life, recreation, and shellfish harvesting. The beneficial use found to be at most risk in the bay is aquatic life. Fisheries resources are jeopardized in south Unalaska Bay, Captains Bay and Iliuliuk Bay. Water supply for seafood processors is jeopardized in Captains Bay and Iliuliuk Harbor.

Applicable Water Quality Criteria

A number of water quality parameters have criteria values which have been adopted as regulatory standards by the State of Alaska for Unalaska Bay and adjacent waters. In addition, AWCRSA has enforceable policies related to water quality concerns. These policies apply to state and federal permits issued for development in Unalaska (Appendix A).

Specific criteria of concern include dissolved oxygen and benthic accumulations of seafood processing waste solids and residues. AAC 18.70.020 states that the applicable estuarine water quality criteria for dissolved oxygen (D.O.) is 5 mg/l except where natural conditions cause this value to be depressed." AAC 18.70.020 states

that "(residues) shall not ... cause a sludge, solid or emulsion to be deposited ... on the bottom, or upon adjoining shorelines." AAC 18.70.033 provides that a "zone of deposit" may be authorized by ADEC.

POLLUTANT SOURCES

Receiving waters in greater Unalaska Bay are affected by several types of pollutant sources, both point and nonpoint. The primary point sources of BOD, nutrients, suspended and settleable solids are the discharges from shore-based seafood processing facilities. Secondary point sources include floating seafood processors which intermittently operate and discharge in the bay and the local municipal wastewater treatment plant. Potential nonpoint sources include discharges from stormwater runoff from developed areas and discharges of bilge water, fish holding tank water, or human waste from freighters and fishing vessels. Petroleum products are released to greater Unalaska Bay through accident or intention by vessels anchored in or passing through the bay.

Seafood Processing

Increased discharges from seafood processing operations since the late-1980's have heightened water quality concerns in the Unalaska area. These concerns focus on two of the detrimental effects of seafood processor discharges: the consumption of dissolved oxygen and the burial of benthic communities which threatens aquatic life in the area. The effects of nutrient-rich effluents on both benthic and planktonic communities is a more obscure impact on water resource quality.

Six companies operate shore-based seafood processing facilities in greater Unalaska Bay (Figure 5). The primary species processed are pollock and crab, with cod, salmon, halibut, and herring being processed to a lesser degree. Bottomfish processing is a year-round activity, crab processing is somewhat seasonal, and the processing of salmon, halibut and herring is highly seasonal.

Traditionally, the processing of finfish has involved the heading and gutting, and perhaps scaling and boning, of the landed catch. This process can generate a significant quantity of wastes, both liquids and solids. The seafood product recovery rates reported to NMFS can be used as a basis for estimating the percent of catch which may be discarded (Alaska Sea Grant 1988). The following percentages reflect production waste which is either available for by-product utilization or requiring disposal for the species landed and processed in greater Unalaska Bay: pollock (57-82%), Pacific cod (25-68%), halibut (25-52%), salmon (18-32%) and Pacific herring (0-40%).

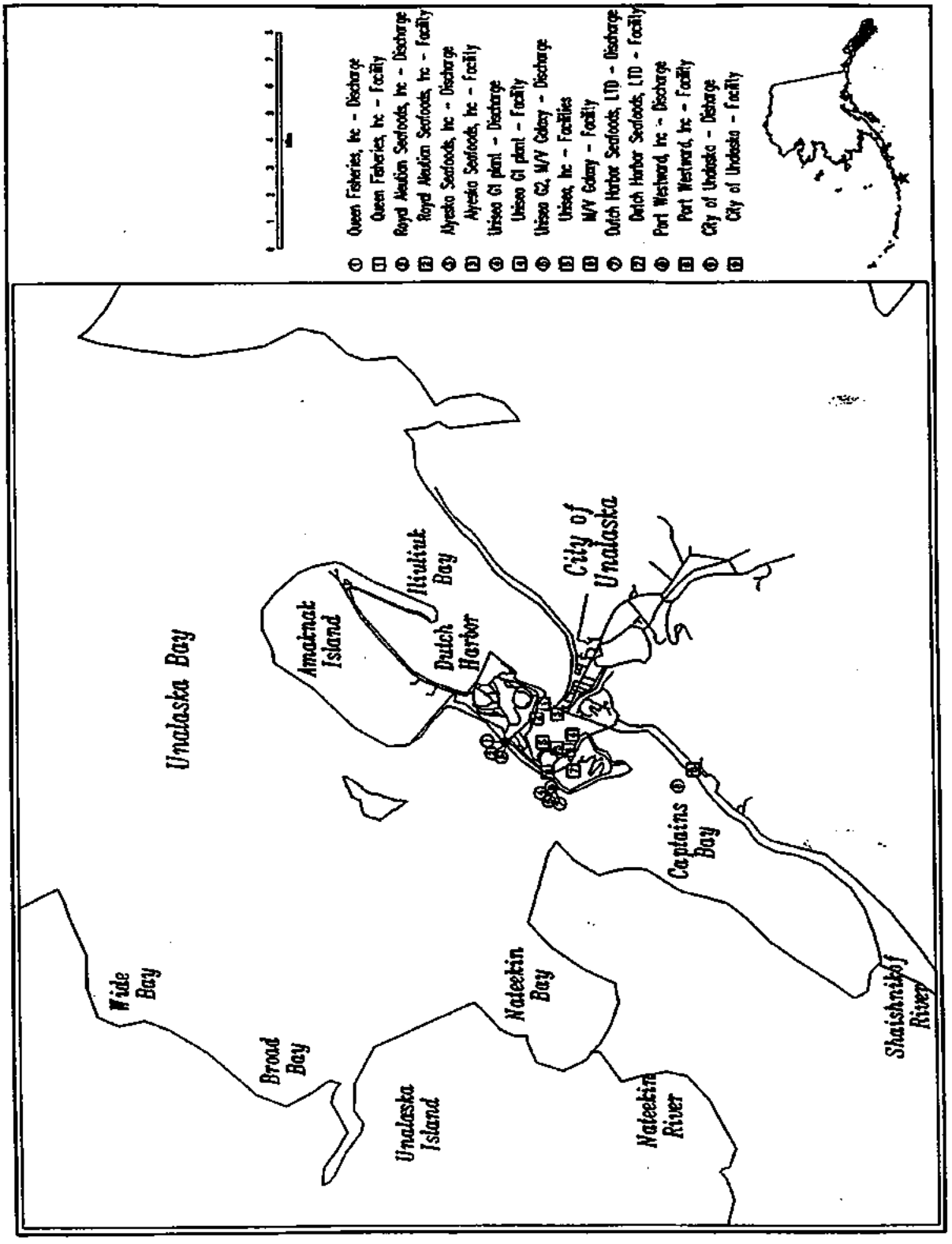
Since 1987, fish meal has been a by-product of the seafood processing industry in Unalaska. Fish meal is made using fish wastes from surimi and other fish processing operations. In a typical process, these wastes are ground, cooked and dehydrated with a mechanical press which utilizes more than 95% of the gross product. The main liquid waste resulting from this process is called "stickwater." There are concerns about the discharge of stickwater because of its high BOD concentrations (20,000-200,000 mg/l). Discharges of stickwater could contribute to dissolved oxygen problems.

The scrubber waste water from treating air emissions from fish meal plants can also be an important source of BOD_5, total suspended solids, and oil and grease loading.

Crab may be processed whole, in sections or as meat. Waste is, respectively, 5-10%, 28-42%, and 79-85%. The chitinous exoskeleton, particularly the thick carapace, comprises a significant portion of this waste material.

A review of the production reported for 1993 by the seafood processors operating in greater Unalaska Bay provides some perspective on the scale of production in the bay, the level of production efficiency, and the amount of waste generated and discharged (Table 2). UniSea is the largest processor in Unalaska, having processed roughly 122,778 MT of raw products, shipped approximately 40,755 MT of finished products (including *dehydrated* fish, bone and crab meal), and released an estimated 82,023 MT of product wastes as water vapor or effluent discharge. Westward Seafoods and Alyeska Seafoods rank a close second and third in

Figure 5. Point sources of pollution in greater Unalaska Bay



production, with raw product, finished product and product waste levels of 91,131 MT, 30,818 MT and 60,313 MT, and 61,041 MT, 23,573 MT and 40,098 MT respectively. Royal Aleutian Seafoods, East Point Seafoods and Dutch Harbor Seafoods are significantly smaller facilities, having processed from 1,144 to 4,913 MT of raw product, shipped 704 to 1,935 MT of finished product, and released 440 to 2,978 MT of product wastes. Dutch Harbor Seafoods is a subsidiary of UniSea.

UniSea has five outfall pipes: "G1," a single outfall 31 m in length dicharging in 12 m of water and the "Quad", a group of four parallel outfall pipes 61 m in length and discharging in 27 m of water. Analysis by Ebbesmeyer (Evans-Hamilton 1993) using EPA's PLUME model indicates that an effluent plume of 1.5 million gallons per day (MGD) from G1 achieves a dilution of 85:1 upon surfacing and a plume of 6.5 MGD from the Quad achieves a dilution of 22:1 upon surfacing. Dutch Harbor Seafoods also discharges through the Quad. Together the facilities discharge an average of 93.0 MT of BOD per day (≈67% of estimated average total loading). The wastepile covers about 6.9 acres of seafloor at an average thickness of 0.5 m and a maximum thickness of 6.9 m, for a estimated volume of 14,601 m^3 (EnviroTech Diving 1994).

Westward Seafoods has a single outfall of 425 m length discharging in 17 m of water. Ebbesmeyer determined that an effluent plume of 2.1 MGD achieves a dilution of 99:1 upon surfacing. The facility discharges an average of 27.2 MT of BOD per day (≈20% of estimated average total loading). The wastepile covers about 2 acres of seafloor at an average thickness of 1 m and a maximum thickness of 2 m, for a estimated volume of 4,000 m^3.

Alyeska Seafoods has a single outfall of 162 m length discharging in 16 m of water. Ebbesmeyer determined that an effluent plume of 1.5 MGD achieves a dilution of 100:1 upon leveling out at a trap depth of 13 m. The facility discharges an average of 18.0 MT of BOD per day (≈13% of estimated average total loading). The wastepile covers about 7.3 acres of seafloor at an average thickness of 0.3 m and a maximum thickness of 1.5 m, for a estimated volume of 12,457 m^3 (EnviroTech Diving 1994).

Royal Aleutian Seafoods has a single outfall of 73 m length discharging in 6 m of water. Ebbesmeyer determined that an effluent plume of 0.7 MGD achieves a dilution of 58:1 upon surfacing. The facility discharges an average of 227 kilograms of BOD per day (≈0.002% of estimated average total loading). The wastepile covers about 1.5 acres of seafloor at an average thickness of 0.3 m and a maximum thickness of 2.7 m, for a estimated volume of 1,947 m^3 (EnviroTech Diving 1993).

East Point Seafoods has a single outfall of 60 m length discharging in 10 m of water. The effluent plume of 0.4 MGD is believed to achieve a dilution of 100:1 or more at a trap depth of 6 m. The facility discharges an average of 227 kilograms of BOD per day (≈0.002% of estimated average total loading). The wastepile covers about 0.9 acres of seafloor at an average thickness of 0.1 m and a maximum thickness of 1.5 m, for a estimated volume of 475 m^3 (EnviroTech Diving 1993).

Other Sources

Other potential sources of pollution to the waters of greater Unalaska Bay include the City of Unalaska's wastewater treatment plant, vessels anchoring in or transiting through the bay, storm water discharges from industrial and other developed areas on both Amaknak and Unalaska Islands, and stream runoff.

The City of Unalaska, which is designated as a Native Alaskan Village, is not required to treat the effluent from their sewage treatment plant beyond the primary level of screening out solids in excess of 1 mm. The treatment plant discharges effluent into south Unalaska Bay off a point just north of Unisea's seafood waste outfall area. As noted above, the Unalaska WWTP discharges an average of 355 kilograms of BOD per day (≈0.003% of estimated average total loading).

The storm water discharges from industrial and other developed areas are located primarily around Dutch Harbor and Iliuliuk Harbor, and, to a lessor degree, on the shores of Captains Bay and Iliuliuk Bay. Storm water runoff from the airport on Amaknak Island enters south Unalaska Bay. Other than the processors, the industrial facilities are largely marine operation support

services, including warehousing and refueling operations. These facilities could eventually be required to submit NPDES storm water discharge applications so that they can be covered by EPA's NPDES general permit for storm water discharges associated with industrial activity.

The effluent characteristics of these pollutant discharges are provided in Appendix B.

Environmental Monitoring

Ambient water quality studies have been conducted in the greater Unalaska Bay since the late 1960's. Depressed dissolved oxygen and elevated ammonia levels were first observed in the bottom waters of Iliuliuk Bay and Dutch Harbor during a University of Alaska survey in 1968. The cause was attributed to seafood waste discharges. Early follow-up studies expressed concern that bottom currents would not adequately disperse fish processing wastes in this deep basin surrounded by land and sills. Seafood processors discharges were subsequently redirected to the receiving waters of northeast and southwest Amaknak Island.

During the late 1970's, further water quality studies suggested that the relocation of the outfall pipes to south Unalaska Bay would resolve water quality violations of the dissolved oxygen standard (Colonell and Reeburgh 1978; Feder and Burrell 1979). EPA required that the seafood processor outfalls be relocated accordingly.

With the advent of onshore processing of pollock in the middle and late 1980's, however, seafood production and concomitant discharge wasteloads increased dramatically. Dissolved oxygen concentrations in south Unalaska Bay fell below the Alaska water quality standard of 5 mg/l seasonally. The commencement of discharges from a large seafood processor in Captains contributed to hypoxic conditions. EPA consequently required that the large seafood processors which processed finfish (in addition to crab) screen their wastewaters to retain solids of more than 5 mm diameter; the retained solids are reduced to fish and bone meal. This requirement was provided in NPDES permits

During the 1970's, observations were also made of the accumulation of seafood processing wastes and their effects (EPA 1976, 1977 1978, 1979; Feder and Burrell 1979). Wastepiles were 1-3 m thick and extended 15-45 m from the outfall pipes. Benthic epifauna were found to generally absent or stressed.

In 1980, the National Marine Fisheries Service (NMFS) observed the effects of seafood wastes on benthic marine life (NMFS 1980). The primary cause of concern focused on the piles of solid seafood processing wastes. A secondary and probably more important residue was the waste slurry that significantly extended the impact zone to areas adjacent to the main deposit. NMFS concluded that shallow water discharges may have adverse effects on intertidal and shallow subtidal communities which exceed the impacts of concentrated waste accumulations in deeper water.

Concern over the growing size of the waste piles continued through the 1980's, particularly with the rapid development of the pollock fisheries and increases in discharged settleable solids. As of November 1993, divers measured 17 acres of bottom that were covered by seafood wastes in the four disposal areas on the west side of the Amaknak Island. The thickest wastepile is 6.9 m high. Adverse bottom affects extend beyond the perimeter of these 17 acres when shallow, less dense waste slurries move away from the main piles by dispersive forces. Screening of sediment samples collected in these areas, taken during EPA's 1990 survey, found an absence of benthic macroinvertebrates (EPA 1990). The total bottom area affected by the wastes in Unalaska and Captains Bays is unknown, but is greater than the measured 19 acres of wastepiles.

ACTIONS TO DATE

Over the past several years, progress has been made in reducing the volume of solids discharged by seafood processing facilities relative to the amount of fish produced. It was noted that where screening or recycling of fish waste was conducted, water quality improvements followed. However, significant increases in the amount of fish being processed overwhelm and mask the positive effects of pollution control efforts. It is easy to lose track of the actions

taken to control wastes in the midst of fish kills, noxious algal blooms, wastepile surveys and hypoxic summer conditions. It is useful to review pollution control activities to date.

NPDES Permits

In Alaska, the National Pollutant Discharge Elimination System (NPDES) permit program is administered by EPA. Effluent, or end-of-pipe, limitations for Alaska seafood processors have changed numerous times since the issuance of the first permits in the 1975.

In the late 1970s EPA required seafood processor to relocate their outfalls from Iliuliuk Harbor, Iliuliuk Bay and Dutch to south Unalaska Bay and to Iliuliuk Bay outside of the Dutch Harbor spit and Iliuliuk-Dutch Harbor sill. Effluents derived primarily from crab processing were redirected to receiving waters having year-round circulation throughout the water column at considerable expense to the industry.

With the development of the pollock fisheries, NPDES permits were issued in 1991 to require 5 mm mesh screening of fish wastes (5 mm mesh) and reduction of those wastes to fish meal. This represented a significant reduction in the amount of solids discharged from these facilities. Alyeska Seafoods, Unisea and Westward have built new fish meal plants to reduce fish wastes to a marketable product. These dischargers screen the fish processing waste water and utilize the solids for fish meal and bone production.

The 1991 NPDES permits also provided technology-based effluent limitations for finfish and fish meal processing in greater Unalaska Bay. These effluent limitations are similar to NPDES requirements regulating Kodiak's seafood processors and the non-Alaskan seafood industry. Permit limits apply to BOD, total suspended solids (TSS), and oil and grease.

In addition, the permits required annual surveys of dissolved oxygen and wastepiles in the receiving water. EPA provided that the permitted facilities would either conduct or contribute support to a circulation study of greater Unalaska Bay. The resulting "Circulation study of Unalaska Bay and contiguous inshore marine waters" (CH2M-Hill, 1994) provides important technical support for the present water quality assessment and the determination of total maximum daily wasteload allocations.

AWCRSA

The Aleutians West Coastal Resource Service Area (AWCRSA) has enforceable policies related to water quality concerns. These apply to State and federal permits issued for development in Unalaska. In addition, the AWCRSA has prepared a draft Area Meriting Special Attention (AMSA) Coastal Management Plan for the Unalaska Bay and watershed areas. Many of the policies in the draft plan directly or indirectly address water quality concerns in greater Unalaska Bay.

In recognition of the problem with hydrocarbon contamination of Unalaska area waters, AWCRSA developed a public information campaign to reduce the number of fuel spills and incidents of bilge pumping to local waters. The objective of this multimedia and public education campaign is to reduce the number of reported fuel spills by 10% in one year.

Seafood Processors

The seafood processing industry is very aware of the need for reduction of waste discharges. The Westward fishmeal plant, for instance, was designed to maximize recovery of seafood processing waste products. One innovation includes the use of surplus heat to recover soluble proteins from stickwater. Stickwater recovery is another treatment process being examined which collects proteins as a separate product that can be marketed with a very high salt content. Other processes for removal of soluble protein are also being actively researched and tested.

Discharge of suspended solids is another water quality concern in the Unalaska area. Although the present permitted dimension for discharged solids from fish processing is 5 mm, Unisea and Westward are presently recovering all seafood processing solids to 2.5 mm (and the greatest portion to 1 mm) with the use of a "Rotoshear", rotary screen strainer. The

processors believe that this screening system has led to substantial reductions in the volume of the outfall waste piles.

The industry has indicated that other opportunities are being examined to further reduce TSS loads. This includes possible incorporation of dissolved air flotation (DAF) technology for the recovery of dissolved and suspended solids. Electrocoagulation is also being evaluated to reduce TSS and BOD at individual waste stream sources.

Discharged solids from crab processing activities constitute the greatest bulk of the wastepiles. Unalaska area seafood processors are participating in research on the viability of a chiton-chitosan reduction plant in Dutch Harbor (Pacific Associates 1993). At their own initiative, UniSea and Alyeska Seafoods are incorporating tanner crab wastes into their meal plant input lines; Westward is prepared to do so in 1994.

POLLUTION CONTROL STRATEGY

Multiple sources contribute to water quality problems identified in the Unalaska area. Steps have been taken by the seafood processing industry to reduce pollutant loads to local receiving waters. To date, the approach taken to pollution control in the area has focused on NPDES permits for point sources, i.e., the shore-based seafood processing facilities. Continued efforts to further reduce pollutant wasteloads should be more focused and consider cumulative effects. Thus, development of a Total Maximum Daily Load (TMDL) is needed in particular instances.

Development of a TMDL Plan

A Total Maximum Daily Load (TMDL) Plan is an implementation plan which identifies levels of pollution control needed to achieve water quality standards. The TMDL needs to consider all sources, point, nonpoint, and background, in determining the loading capacity of a waterbody. The approach to be used to prepare the TMDL will focus first on dissolved oxygen and solids loading to the bays. Development of the initial draft water quality management plan occurred in 1993 under the authorities of Alaska's Water Quality Standards (AAC 18.70) and the federal Clean Water Act. The plan identifies preventative and remedial actions which will reduce pollutant loads to water quality-limited waterbodies. The program areas identified for action will utilize NPDES permits as the means of regulating and allocating pollutant wasteloads to the receiving waters of greater Unalaska Bay.

Yet the determination of a TMDL for a specific pollutant in a specific estuarine waterbody like the basins of south Unalaska Bay, Captains Bay, Iliuliuk Harbor and Iliuliuk Bay-Dutch Harbor (basin) presents significant analytical challenges and faces inevitable limitations.

First, the receiving waterbodies have relatively "open" circulation in their summer surface layers and winter water columns. Sills are partial barriers, bounding basin waters at depths but not at the surface. In a number of waterbodies in the inner bay land boundaries are relatively distant from pollutant sources. The open sea constitutes both a "boundary condition" and a source of water renewal. Exchange rates with the sea and turnover rates of the water column are important considerations of loading capacity which vary in space and time.

Second, the hydrodynamics of circulation are extremely complex (as compared to a lake, reservoir or river) and depend upon the variations of winds, tides, density-driven currents, stratification of the water column, and other elements of oceanography and meteorology. The loading capacity for wastes changes in space and time. Changes in the location of an outfall or the season (or even week) of discharge changes the loading capacity of a receiving water for a pollutant. This complexity confounds analysis and even sophisticated computer models utilizing extensive and costly data yield rough approximations of fate and effects.

Third, the seafood processing pollutants of concern, biochemical oxygen demand and settleable waste residues, are labile pollutants which decrease in amounts with time. Temporal considerations affect cumulative impacts. BOD is significantly reduced (as much as 90%) in five days of exposure to oxygenated water. Seafood waste solids are consumed by marine life, both large (e.g., sea lions and halibut) and small (Capitellid worms and nematodes) when fresh, and decomposed by bacteria when old. Analyses

must seek to incorporate rates of loss from the environment as well as addition to the environment.

Fourth, the Alaska water quality standards for the pollutants of concern interact with the ambient conditions and regulatory flexibility to support loading capacities which are variable. Dissolved oxygen concentrations vary across the bay and throughout the water column. Summer daylight D.O. concentrations range from 13.5 mg/l (surface) to 9.3 mg/l (bottom) in outer Unalaska Bay to 13.4 mg/l (surface) and 8.6 mg/l (bottom) in Nateekin Bay. Winter daylight D.O. concentrations range from 10.4-10.8 mg/l throughout the bay. Zones of deposits (ZOD) for wastepiles of settleable residues may be authorized and sized at the discretion of ADEC (AAC 18.70.033). ADEC has authorized one acre ZODs for more than 100 log transfer facilities in SE Alaska and is authorizing one acre ZODs for seafood processors under the reissuance of NPDES general permit no. AKG-52-0000 for approximately 350 seafood processors.

In view of these limitations, EPA and ADEC have proposed a phased TMDL plan (EPA 1991) which provides for the determination of loading capacity [40 CFR §130.2(f)], wasteload allocations [40 CFR §130.2(h)] with a large margin of safety that accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving water [CWA §303(d)(1)(C)], and monitoring requirements tied to a schedule for reassessing wasteload allocations to ensure attainment of water qulaity standards.

Thus ambient water quality monitoring by the seafood processing industry is a crucial element of the TMDL plan. Information provided by this monitoring program will evaluate the effectiveness of the TMDL plan and document improvements in water quality which result from efforts of the agencies and the regulated community. The monitoring program also provides information needed to focus future pollution reduction efforts.

South Unalaska Bay

South Unalaska Bay has been listed as a water-quality limited waterbody impacted by seafood processing wastes (ADEC 1992). It has been listed as an impaired waterbody impacted by industrial sources, petroleum products, sewage discharge, seafood processing wastes and urban runoff.

Evidence available to EPA Region 10 indicates that south Unalaska Bay is chronically degraded by seafood waste residues burying large areas of the nearshore seafloor and intermittently degraded during stratified summer conditions by hypoxic conditions of less than 5 mg D.O./l. EPA does not find evidence to indicate that this receiving water is signficantly and persistently degraded by petroleum products, sewage or runoff.

It is therefore EPA's determination that a TMDL plan is required for (1) settleable seafood processing waste residues and (2) seafood waste biochemical oxygen demand in south Unalaska Bay. Fecal coliform bacteria, petroleum products and urban runoff should be monitored for determination of the level of impairment of water quality.

Captains Bay

Captains Bay has been listed as an impaired waterbody impacted by seafood processing wastes (ADEC 1992).

Dissolved oxygen concerns due to the discharge of BOD by Westward Seafoods in Captains Bay were addressed by EPA in a 1992 modification of Westward Seafoods' NPDES permit no. AK-004978-6. EPA evaluated the available data, constructed a WASP water quality model, and established a BOD wasteload allocation of 69,000 lbs BOD/day for summer discharges from this facility. This wasteload allocation was developed with consideration of the load allocation. The allocation was subject to public comment along with a draft permit modification. Upon finalization, the new NPDES permit limits based on the seasonal wasteload allocation were established in the Westward permit.

The new wasteload allocation has formally addressed the water quality impairment in Captains Bay in a manner consistent with TMDL requirements. In this case, therefore, the

wasteload allocation can be considered a functional equivalent of a TMDL. Monitoring is being conducted to ensure that the State water quality standard of D.O. is met. Because any new actions in this matter would duplicate previous actions, EPA has determined that a TMDL is not warranted at this time.

Iliuliuk Harbor

Iliuliuk Harbor has been listed jointly with Iliuliuk Bay as a water-quality limited waterbody impacted by petroleum products (ADEC 1992). It has been listed as an impaired waterbody impacted by sewage and seafood processing wastes.

EPA Region 10 finds that Iliuliuk Harbor is small, relatively shallow waterbody which should be assessed independent of Iliuliuk Bay. Evidence available to EPA indicates that Iliuliuk Harbor is well-flushed by some of the strongest currents in greater Unalaska Bay and does not suffer from significant degradation due to persistent exceedences of the loading capacity of the harbor for petroleum products, sewage or seafood processing wastes. Rather, EPA finds that Iliuliuk Harbor is impacted by intermittent spills of petroleum products and frequent discharges of seafood holding tank water and transfer water from fishing vessels docking at seafood processors in the harbor. Enforceable programs exist to control such pollution.

It is therefore EPA's determination that a TMDL plan focused on the allocation of loading capacity is not required for petroleum products. Rather, EPA will work through its watershed coordination program in Alaska Operations Office with the U.S. Coast Guard, State of Alaska, City of Unalaska, Port of Dutch Harbor and area seafood processing companies to reduce intermittent releases of petroleum products to Iliuliuk Harbor.

EPA finds that petroleum products, sewage, biochemical oxygen demand ,and settleable seafood waste residues should be monitored for determination of the level of impairment of water quality.

Iliuliuk Bay

Iliuliuk Bay has been listed jointly with Iliuliuk Harbor as a water-quality limited waterbody impacted by petroleum products (ADEC 1992). It has been listed as an impaired waterbody impacted by sewage and seafood processing wastes.

EPA Region 10 finds that Iliuliuk Bay is, in conjunction with Dutch Harbor, a relatively deep basin which should be assessed independently of Iliuliuk Harbor. Evidence available to EPA indicates that Iliuliuk Bay does not suffer from significant degradation due to persistent exceedences of the loading capacity of the bay for petroleum products, sewage or seafood processing wastes. Rather, EPA finds that Iliuliuk Bay is impacted by intermittent spills of petroleum products and chronic sewage runoff from residences which have not established sanitary connections to the municipal wastewater collection system. Enforceable programs exist to control such pollution.

It is therefore EPA's determination that a TMDL plan focused on the allocation of loading capacity is not required for petroleum products. Rather, EPA will work through its watershed coordination program in Alaska Operations Office with the U.S. Coast Guard, State of Alaska, City of Unalaska, Port of Dutch Harbor and area seafood processing companies to reduce intermittent releases of petroleum products to Iliuliuk Harbor. EPA will work with the State of Alaska and the City of Unalaska to reduce chronic sewage discharges in urban runoff and promote compliance with the policies of municipal wastewater collection and treatment in the watershed.

EPA finds that petroleum products, sewage, biochemical oxygen demand and settleable seafood waste residues should be monitored in Iliuliuk Bay for determination of the level of impairment of water quality.

Dutch Harbor

Dutch Harbor has been listed as an impaired waterbody impacted by petroleum products, sewage and seafood processing wastes (ADEC 1992).

EPA Region 10 finds that Dutch Harbor is, in conjunction with Iliuliuk Bay, a relatively deep basin which is separated from the bay by a long spit or peninsula and should therefore be assessed independently of Iliuliuk Bay. Evidence available to EPA indicates that Dutch Harbor does not suffer from significant degradation due to persistent exceedences of the loading capacity of the bay for petroleum products, sewage or seafood processing wastes; the latter are no longer discharged to the harbor pursuant to NPDES requirements dating back to 1979. Rather, EPA finds that Dutch Harbor is impacted by intermittent spills of petroleum products and may be impacted by illegal discharges of sewage from vessels docked or moored in the harbor.

EPA finds that petroleum products and fecal coliform bacteria should be monitored in Dutch Harbor for determination of the level of impairment of water quality.

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APPENDICES

APPENDIX A APPLICABLE WATER QUALITY STANDARDS

APPENDIX B POLLUTANT SOURCES

APPENDIX C AVAILABLE MONITORING DATA

APPENDIX A

APPLICABLE WATER QUALITY STANDARDS

South Unalaska Bay and Iliuliuk Bay/Iliuliuk Harbor have been designated as water quality-limited ADEC 1992). Captains Bay and Dutch Harbor are impaired waterbodies of monitoring interest. The pollutants of primary concern are benthic accumulations of seafood waste solids and residues, biochemical oxygen demand and petroleum products.

Within the State of Alaska, water quality standards are published pursuant to Title 46 of the Alaska Statutes (AS). The Alaska Department of Environmental Conservation (ADEC), under authority vested by AS 46.03.010, 46.03.020, 46.03.070, 46.03.080, 46.03.100, and 46.03.110, can adopt rules, regulations, and standards as are necessary and feasible to protect water quality. Regulations dealing with water quality, to implement AS 46.03.020 and 46.03.080 are found in Title 18, Chapter 70, of the Alaska Administrative Code (AAC). Through the adoption of water quality standards, Alaska has defined the beneficial uses to be protected in each of its drainage basins and the criteria necessary to protect these uses

Segments of Concern

Historically, most water quality investigations in the Unalaska area have been restricted to the accumulation of seafood processing wastes between Amaknak and Hog Islands. However, water quality concerns in Unalaska are not limited to site-specific problems. To reflect broader, area-wide water quality issues, this assessment includes five waters identified on the "Impaired Waterbody Listing" in Alaska's 1992 Statewide Water Quality Assessment (§305b report).

Table A-1. Waterbodies of Concern

ID Number	Waterbody
30102-603	Unalaska Bay, south
30102-605	Captains Bay
30102-602	Iliuliuk Harbor
30102-602	Iliuliuk Bay
30102-601	Dutch Harbor

Three of these waterbodies (Iliuliuk Bay, Iliuliuk Harbor, and south Unalaska Bay) were identified by the ADEC as requiring water quality-based controls. The major concern behind this listing action is the benthic accumulation of seafood waste. Other pollutants listed by DEC include petroleum products and sewage. In addition, ambient water quality monitoring data has shown dissolved oxygen to be of concern in certain areas. Water quality in greater Unalaska Bay is affected mainly by point source discharges from fish processing facilities.

Beneficial Uses Affected

Designated uses for the Unalaska watershed are found in Alaska's water quality standards [18 AAC 70.020(a)]. For marine systems, these include water supply, water recreation, growth and propagation of fish and other aquatic life, and harvesting for consumption of raw mollusks or other raw aquatic life. This list of beneficial uses was established by the ADEC pursuant to Title 46 of the Alaska Statutes and are identified in Table A-2. As charged by AS 46, ADEC has adopted rules and standards that are necessary to protect the recognized beneficial uses. In practice, standards have been set at levels to protect the most sensitive of the uses: aquatic life or human health protection. Assessment activities have determined that aquatic life is not supported in portions of south Unalaska and Captains Bays.

Water Quality Impacts

Ambient water quality studies have been conducted in the Unalaska area since the late 1960s. These studies found depressed dissolved oxygen (DO) and elevated nutrient levels in receiving waters that were attributed to the seafood waste discharges.

Table A-2. Uses Protected by Alaska's Water Quality Standards

18 AAC 70.020(2)	Marine Water Uses
(A)	Water Supply
(i)	• aquaculture
(ii)	• seafood processing
(iii)	• industrial
(B)	Water Recreation
(i)	• contact recreation
(ii)	• secondary recreation
(C)	Growth and propagation of fish, shellfish, other aquatic life, and wildlife
(D)	Harvesting for consumption of raw mollusks or other raw aquatic life

Revised NPDES permits issued in 1991 to the seafood processors in the Unalaska area required annual water quality monitoring. In 1991 and 1992, monitoring near the only seafood waste discharge in Captains Bay found DO depressed (ranging from 2 to 5 mg/L) in surface waters (at water depths ranging from 0 to 13 meters) and near the bottom from August to November. Maximum water depth in Captains Bay is approximately 113 meters and it is separated from deeper waters in Unalaska Bay by a sill that is 26 meters deep.

The 1992 monitoring program in south Unalaska Bay found DO in the 1 to 5 mg/L range usually in surface waters but also at the bottom near the two large seafood waste discharges (Alyeska Seafoods and Unisea) on the west side of Amaknak Island. The above DO depressions were not observed at the reference station in Unalaska Bay.

Indications of significantly impaired water quality conditions have recently been observed in the Unalaska area. Near the end of July 1991, a fish kill was observed in Unalaska Bay on the west side of Amaknak Island just north of the seafood waste disposal areas used by Alyeska Seafoods, Royal Aleutian Seafoods, and Queen Fisheries. The fish kill involved both pelagic and benthic fish species and bottom invertebrates (e.g., sea urchins). The cause of the kill was not determined.

In late August 1992, dead and dying sub-adult red king crab were observed on the east shore of Captains Bay just north of Westward Seafoods. The cause of the mortality was attributed to a combination of poor water quality (elevated water temperature and low dissolved oxygen) and heavy gill fouling by the diatom *Chaetoceros convolutus*. A large plankton bloom was noted within the bay just prior to the crab kill.

Benthic Impacts

Nearshore areas on the west side of Amaknak Island in Unalaska Bay have been used for seafood waste disposal since at least the late 1970s. Areas presently being used for disposal at this location have been monitored for waste coverage on the bottom since 1976. Early assessments identified the small cove used by Unisea for waste disposal as a poor site for dispersion. Further, resource agencies were

concerned about the adverse affects of shallow water discharges on productive nearshore areas, such as the area used by Alyeska Seafoods and two smaller processors.

Diver observations as early as 1975 have noted mortalities to fish, clams, and invertebrates in general near the waste piles. EPA divers have observed clam mortalities caused by only 1 to 2 cm of seafood waste. Scientific literature (e.g., Pearson and Rosenberg 1978) indicates that sediments may become anoxic and lose all macroinvertebrates with organic deposition in trace amounts. Recent diver surveys, required of the processors by their NPDES permits, have focused on the main waste accumulation and rarely describe adverse affects in the perimeter areas where shallow (i.e., < 1 cm thick) may occur, often as a semi-suspended slurry that moves slowly across the bottom.

As of November 1993, divers measured 17 acres of bottom that were covered by seafood wastes in the four disposal areas on the west side of the Amaknak Island. At Bailey Ledge in Captains Bay, an additional 2 acres of bottom appear to be covered by seafood wastes. Adverse bottom affects extend beyond the perimeter of these 19 acres when shallow, less dense waste slurries move away from the main piles by dispersive forces. The total bottom area affected by the wastes in Unalaska and Captains Bays is unknown.

Applicable State Water Quality Criteria

A number of water quality parameters have criteria values which have been adopted as regulatory standards by the State of Alaska for greater Unalaska Bay.

Dissolved Oxygen: Dissolved oxygen is a critical parameter for the protection of aquatic life. The applicable dissolved oxygen criteria for estuarine waters in inner Unalaska Bay:

"D.O. concentrations in estuaries and tidal tributaries shall not be less than 5.0 mg/L except when natural conditions cause this value to be depressed."

Benthic Deposits: The general water quality criteria state that residues, sludge, and deposits: *"shall not, alone or in combination with other substances or wastes, make the water unfit or unsafe, or cause acute or chronic problem levels as determined by bioassay or other appropriate methods" [18 AAC 70.020(b)].*

Although no specific numeric criteria for benthic accumulations of fish processing waste have been established, the intent for protection of aquatic life is clear. Studies have documented biologically stressed benthic communities in the vicinity of seafood processing outfalls. Solids from fish processing discharges have infiltrated or covered bottom areas historically used by aquatic life. Although the specific effects on benthic communities in greater Unalaska Bay have not been quantified, burrowing and attached benthic organisms have been observed to be completely eliminated from areas covered by wastes deeper than about 1 cm.

Alaska's water quality standards do allow for permitted "Zones of Deposit" for marine waters. Procedure to be followed are described in 18 AAC 70.033 which state:

(a) In its discretion, the department will issue or certify a permit that allows deposit of substances on the bottom of marine waters within limits set by the department. The water quality criteria of 18 AAC 70.020(b) and the antidegradation requirement of 18 AAC 70.010(c) may be exceeded in a zone of deposit. However, the standards must be met at every point outside the zone of deposit. In no case may the water quality standards be violated in the water column outside the zone of deposit by any action including leaching from, or suspension of, deposited materials. Limits of deposit will be defined in a short-term variance issued under 18 AAC 70.015 or a permit issued or certified under 18 AAC 15.

(b) In deciding whether to allow a zone of deposit, the department will consider, to the extent it deems appropriate,

(1) alternatives that would eliminate, or reduce, any adverse effects of the deposit;

(2) the potential direct and indirect impacts on human health;

(3) the potential impacts on aquatic life and other wildlife, including the potential for bioaccumulation and persistence;

(4) the potential impacts on other uses of the water body;

(5) the expected duration of the deposit and any adverse effects; and

(6) the potential transport of pollutants by biological, physical, and chemical processes.

(c) The department will, in its discretion, require an applicant to provide information that the department deems necessary to adequately assess (b)(1) - (b)(6) of this section. In all cases, the burden of proof for providing the required information is on the person seeking to establish a zone of deposit."

There are currently no zones of deposit which have been designated by ADEC for receiving waters in south Unalaska Bay. ADEC has designated a two-acre zone of deposit for crab wastes (accumulations of fish waste are not allowed) at Bailey Ledge in Captains Bay.

AWCRSA Coastal Zone Management Plans

The Aleutians West Coastal Resource Service Area (AWCRSA) has enforceable policies related to water quality concerns. These policies apply to state and federal permits issued for development in Unalaska. Areas covered by these policies include:

- Relationship to state standards
- Maintain water quality criteria
- Wastewater discharges
- Shoreline developments
- Environmental protection technology
- Hazardous substances
- Siltation and sedimentation
- Refuse disposal
- Sewage disposal
- Storage of petroleum products
- Spill containment and cleanup
- Cumulative effects

Specific criteria of concern include dissolved oxygen and benthic accumulations of seafoods processing wastes (residue).

APPENDIX B

POLLUTANT SOURCES

There are three types of point source discharges in the Unalaska-Dutch Harbor area: (1) seafood waste discharges, (2) primary-treated sewage from the City of Unalaska's sewage treatment plant, and (3) storm water runoff.

Seafood Waste Discharges

Six seafood processors have NPDES permits to discharge seafood wastes in the Dutch Harbor / Unalaska area (Table B-1). These facilities are shore-based plants and mobile or non-mobile floating processors. .Pollock, cod, crab, salmon, halibut, herring, and several miscellaneous fish species are processed by these operations. However, pollock and crab are the primary species. While seafood processing discharges occur year-round, pollock and crab are processed seasonally in winter (both) and summer (pollock only). Maximum expected processing capacity for fish, crab, and meal is shown in Table D-1.

Other seafood processors are covered by EPA's General Permit and may occasionally discharge seafood wastes from mobile floating operations. Such discharges generally occur while the vessels are temporarily anchored in Nateekin Bay, Wide Bay, and Broad Bay, which are embayments off of Unalaska Bay.

Prior to October 1991, the NPDES permits for seafood processors in the Dutch Harbor-Unalaska area prohibited the discharge of crab or fish wastes exceeding 0.5 inch in any dimension, in accordance with EPA guidelines for remote facilities. Expanded processing of pollock during the 1980's resulted in the discharge of increased waste volumes, particularly to the water column. In recent years, these discharges caused further degradation of water quality in Unalaska and Captains Bays. In October 1991, the NPDES permits for six of these facilities, including the three largest processors in this area, were reissued with more stringent effluent limitations. The new permits required that effluent streams with fish wastes be passed through a fine mesh (5 mm) screen or equivalent technology. In the absence of a market for crab / crab shell meal, crab wastes were allowed to be discharged if ground to a least 0.5 inch in any dimension.

Fish Meal Wastes

Since 1986, fish meal has been a by-product of the seafood processing industry in the Unalaska-Dutch Harbor area. The main waste resulting from this process is called stickwater, and the current NPDES permits allow the processors to discharge 83% of the stickwater that is produced. EPA is concerned about these discharges because they have high levels of BOD (biochemical oxygen demand), which can significantly reduce the dissolved oxygen in the receiving water. A processor in Akutan estimated a 5-day BOD of 48,000 mg/l for their stickwater, but the level can go much higher depending upon the species processed.

Fish meal is made using fish wastes from surimi and other fish processing operations. In a typical process, the wastes are ground, cooked, and dehydrated with a mechanical press. After dehydration the solids are saved for meal, and the liquids are decanted and centrifuged to separate solids and oils, respectively. The solids are recycled into the meal and the oil may be used as fuel. The remaining liquid is the waste product referred to as stickwater.

The primary components of stickwater (i.e., protein, moisture, fat, and ash) produced by Alaskan meal plants appear to be the same as those addressed in the new source performance standards (Development Document for Effluent Limits, Guidelines, and New Source Performance Standards for Fish Meal, U.S. Environmental Protection Agency, 1975, EPA 440/1-75/041a) for meal plants in the contiguous 48 states. However, the volume of each primary component varies according to the fish species processed. More importantly, stickwater from Alaskan meal plants may contain higher salt levels than meal produced elsewhere in the U.S.

Table B-1. Seafood Waste Discharges in the Dutch Harbor-Unalaska Area.

NPDES Permit Number	Facility	Receiving Water	Processing Capacity tons/day		
			Fish	Crab	Meat
AK-000027-2	Alyeska Seafoods	Unalaska Bay	1,000	250	700
AK-002865-7	Unisea 1/ G1-Surimi/Fish/Crab G2-Surimi Meat Plant	Unalaska Bay	 750 1,000 0	 150 0 0	 0 0 800
AK-002842-8	Dutch Harbor Seafoods	Unalaska Bay	40	57.5	0
AK-002618-2	Royal Aleutian Seafoods	Unalaska Bay	75	80	0
AK-002025-7	Queen Fisheries	Unalaska Bay	37	90	0
AK-004978-6	Westward Seafoods	Captains Bay	1,078	88	440

Note: 1/ Not all process lines are normally operating at the same time.
2/ Obtained from compliance reports.

The high salt content of the stickwater apparently originates from fish that are placed in refrigerated sea water after being caught. Salt is absorbed into the skin and other fish tissues, and is retained through the fish meal process. Stickwater and solubles resulting from the production of fish meal in the Unalaska area can have concentrations of salt as high as 12%. According to the fish meal industry, there is no market in the U.S. for meal or solubles with a salt content greater than 2.5%. As a result, waste liquids with high salt content (and BOD levels), are discharged to receiving waters.

The scrubber waste water from treating air emissions from fish meal plants can also be an important source of organic loading when discharged. Fish meal processing at Alyeska Seafoods results in a discharge of scrubber waste water to the channel between Iliuliuk Harbor and Iliuliuk Bay. The loadings from this discharge to the harbor and bay during 1993 were approximately 25,000, 63,683 and 3,200 lbs, respectively, for BOD_5, total suspended solids, and oil and grease. This discharge is approximately equivalent to the loading from a small sewage treatment plant.

Sewage and Storm Water Discharges

The two other discharges to marine waters in this area are from the City of Unalaska's sewage treatment plant, which is only primary treatment, and storm water discharges that enter marine waters from industrial and other developed areas on both Amaknak and Unalaska Islands.

The City of Unalaska, which is designated as a Native Alaskan Village, is not required to treat the effluent from their sewage treatment plant beyond the primary level. The treatment plant discharges effluent into Unalaska Bay just north of Unisea's seafood waste outfall area. The effluent characteristics of this discharge are listed in Table B-2.

The storm water discharges from industrial and other developed facilities are located primarily around Dutch Harbor and Iliuliuk Harbor, and to a lessor degree on the shores of Captains and Iliuliuk bays. Further, storm water runoff from the airport on Amaknak Island enters Unalaska Bay and Dutch Harbor. Overall there are at least 100 culverts that discharge runoff to marine waters in the Unalaska-Dutch Harbor area. About 50% of these discharges are to Dutch Harbor, Iliuliuk Bay, and Iliuliuk Harbor. Information is not available on the nature and volume of the runoff.

Other than the processors, the industrial facilities are largely marine operation support services, including warehousing and refueling operations. Existing EPA storm water regulations require that many types of industrial facilities submit a notice of intent to be covered by EPA's NPDES General Permit for Storm Water Discharges. For example, industries involved with repairing or building ships or boats and bulk petroleum stations or terminals need to have storm water permits. However, existing regulations do not require municipalities of less than 100,000 in population to obtain storm water permits.

Other Discharges and Sources

The individual NPDES permits for the seafood processors in the Unalaska area allow for the discharge of non-process waste waters, which include cooling water, boiler water, fresh water pressure relief discharge, refrigeration condensate, and live tank water. These non-process waste waters may be discharged to Iliuliuk Harbor, Iliuliuk Bay, and Captains Bay. EPA has evaluated these five waste water sources and determined that, due to their low volume or absence of contamination, they may be discharge without limitations or monitoring requirements.

Oil spills to marine waters is another source of pollution that may adversely affect water quality. In the Unalaska area, oil spills are investigated by the Port of Dutch Harbor. During a 1-year period (April '93 to March '94), they estimated that 1770 to 2700 gallons of oil were discharged to marine waters adjacent to Amaknak Island (Captains Bay, Iliuliuk Harbor and Bay, Dutch Harbor, and Unalaska Bay). Nearly 70% of the spills involved diesel oil, which is highly toxic to marine life, and most (84%) of the spills occurred in the Dutch Harbor-Iliuliuk Bay-Iliuliuk Harbor area.

U.S. Coast Guard, according to the AWCRSA, reported 256 oil spills in the Unalaska-Dutch Harbor area during the period from April 1992 to September 1993.

Table B-2. Sewage Discharge Effluent Characteristics for the City of Unalaska's Primary Treatment Plant (Reported on the Discharge Monitoring Reports from January 1992 through February 1993)

Parameter	NPDES Effluent Limit for AK-004345-1	Reported Effluent Level	
		Number of Observations	Range - (Average)
Max BOD_5 1/ mg/l	270	8	218 - 360
Monthly Ave BOD_5 lbs/day	540	2	(782)
Max TSS 2/ mg/l	295	7	120 - 295
Monthly Ave TSS lbs/day	590	2	(559)
Flow mgd	0.24	14	0.31 - 0.55 (0.40)
pH standard units	6 - 8.5	14	6.5 - 8.4

Notes: 1/ BOD_5 is 5-day biochemical oxygen demand.
2/ TSS is total suspended solids.

water or discharge through outfalls at water depths of greater than 13 meters was preferable to shallow water discharge.

In November 1980, the Alaska Department of Environmental Conservation (ADEC 1980) surveyed water quality in the vicinity of Dutch Harbor. Seafood waste discharge at that time was only to Unalaska Bay. They found high (8.6 to 13.3 mg/L) dissolved oxygen in the upper 10 m water layer in Captains Bay, Iliuliuk Harbor, Dutch Harbor, and Iliuliuk Bay. The survey did not include waters below 10 meters deep or Unalaska Bay.

1989

In May 1989, EPA conducted a side scan sonar investigation to measure the thickness of wastes in seafood disposal areas in Unalaska Bay (Watson Company 1989). Under the best conditions, the sonar was able to detect fish wastes one foot thick, and under less favorable conditions only 1 meter in thickness. Off the west side of Amaknak Island in the small cove north of Arch Rock, heavy fish wastes covered 25,000 square meters (6.2 acres) of the bottom. The area covered by lighter seafood waste in the cove was not determined because the minimum waste thickness measured was 1 meter. Heavy fish wastes covered approximately 15,000 square meters (3.7 acres) in the nearshore shallow area north of Cave Rock. Lighter fish wastes covered an estimated additional 8 acres in this area.

1990 to Present

In July 1990, EPA conducted another compliance inspection with divers of the seafood waste discharge areas adjacent to Amaknak Island (EPA 1990, unpublished compliance reports). Similar to prior surveys, the divers were unable to determine the area covered by heavy wastes in the cove north of Arch Rock. However, they were able to survey the nearshore area north of Cave Rock where they found roughly 52,500 square meters (13 acres) of bottom were covered by seafood wastes ranging in thickness from a maximum of approximately 6 meter to a minimum of 1 cm. The divers observed additional bottom areas adjacent to the deposits that appeared to be adversely effected by the secondary slurry also noted by NMFS (1980). The divers also collected sediment cores for hydrogen sulfide analysis in this nearshore area. High H_2S levels were found in sediments adjacent to the waste deposits. For example, a maximum H_2S concentration of 347 ppm was measured in sediment taken 30 m from an outfall. In this area, sediment samples screened for infaunal organisms showed an absence of benthic macroinvertebrates.

Ebbesmeyer et al. (1993) reviewed the circulation and movement of water within Unalaska Bay and adjacent water bodies and the effects of seafood waste discharges. Ebbesmeyer et al. (ibid.) partitioned this area into four physical oceanographic units: outer Unalaska Bay, Captains Bay, the Hog Island basin, and Iliuliuk Bay. They recognized that Dutch Harbor is a settling basin for sediments entering Iliuliuk Bay, and believed that circulation is mainly driven by tidal and wind forces.

They found that circulation of bottom waters within Iliuliuk Bay,which has a sill 22 meters higher than the basin within the bay, was sufficiently restricted such that dissolved oxygen is at times depleted. However, without knowledge of environmental variability, they could not determine if anoxic conditions would occur each year under natural conditions without the influence of seafood waste effluent discharges.

During a June 1992 through June 1993 circulation study within Captains Bay, SAIC (1993) observed four distinct circulation characteristics: (1) a near-surface (< 30 m) wind driven circulation that was persistently in a southerly direction, but under some conditions the surface flow in the northeast part of the bay entered Iliuliuk Harbor; (2) a counter-clockwise deep circulation that was below the wind driven layer and extended at least to a water depth of 60 m; (3) a weak (1-2 cm/sec) tidal-forced circulation persisted throughout the year; and (4) vertical convection mixed the water column as a result of seasonal warming and cooling.

CH_2MHill (1994) has completed a circulation study for Unalaska Bay and contiguous inshore waters. Intensive oceanographic data were collected during the summer of 1993 and the winter of 1994. Model simulations of circulation and waste field transport were prepared.

Monitoring by Seafood Processors

The seafood processors in the Dutch Harbor-Unalaska area were required to conduct environmental monitoring by EPA and ADEC when their NPDES permits were reissued in 1991. The monitoring requirements will continue for the five-year effective period of the permits. The following reports from the seafood processors are unpublished, but are available from the Enforcement Section of the Wastewater Management and Enforcement Branch of EPA Region 10 in Seattle, Washington. For large processors (Alyeska Seafoods, Inc. and Unisea, Inc.), the monitoring includes:

- baseline and annual dive surveys of the area and thickness of waste piles
- annual side scan sonar measurements of the bottom area covered by their waste piles
- annual water quality surveys in the receiving water
- participation in Circulation Study of Unalaska Bay and Contiguous Inshore Marine Waters

None of the dive surveys performed by the processors provided information on the bottom areas adjacent to waste accumulations. These areas have been adversely affected by trace deposits or semi-suspended wastes, which are commonly found moving across the bottom on the perimeter of the waste fields. In several cases the divers report bottom covered by a white bacterial mat but do not quantify its extent.

The seafood processors in the Dutch Harbor-Unalaska area are participating with the City of Unalaska "to establish an understanding of the circulation patterns and characteristics throughout Unalaska Bay and its contiguous inshore water bodies in order to provide a basis for determining the capacity for these water bodies to assimilate waste load without water quality violations or unreasonable degradation". The study will be one year in length with the final report due in May 1994.

The small processors (Dutch Harbor Seafoods, LTD., Royal Aleutian Seafoods, Inc., and Queen Fisheries, Inc.) are required to conduct the baseline and year-end dive surveys, and to participate in the circulation study.

The newest processor in this area, Westward Seafood, Inc., was required to provide information on the same four monitoring activities identified above. They are also required to conduct a drogue study in the vicinity of their outfall and study circulation within Captains Bay.

Except for Westward Seafoods, which discharges wastes to Captains Bay, all of the above processors discharge seafood wastes to the west side of Amaknak Island. The reports from these processors, as summarized below, were conducted on the west side of the island in Unalaska Bay.

Compliance Reports from Processors Discharging into Unalaska Bay

Alyeska Seafoods, Inc.

Dive Surveys of Seafood Wastes

During 1992, Alyeska completed a "baseline" dive survey in June and a year-end survey in November. A grid system covering about 12.8 acres was established on the bottom in the waste disposal area used by Alyeska on the west side of Amaknak Island. Divers made detailed observations on waste thickness within the grid system to determine the volume and area covered by seafood wastes.

In June, the divers found that 7.18 acres of bottom were covered with 14,535 cubic yards of waste. Additional bottom area, not included in this calculation, was covered by waste on the south and west sides of the grid system. A maximum waste depth of 19 ft was observed near the point of discharge.

In November, the divers found that 8.03 acres of bottom were covered with 13,211 cubic yards of waste. The volume of waste was about 9% less than that observed during the June survey, but the bottom area covered increased by nearly 12%. Further, the amount of waste accumulating on the bottom outside (to the south and west) of the grid system appears to be increasing. The maximum waste depth noted was 18.5 ft.

Side Scan Sonar Survey

The 1992 side scan survey (date of survey unknown) provides minimal information on the areal coverage of seafood wastes on the bottom. The report does not provide information on the minimum detectable waste thickness, estimate the area covered by wastes, or show the grid system used by the divers.

In subsequent discussions with dive and side scan sonar (SSS) survey personnel, there appears to be poor agreement between what the SSS survey showed as seafood wastes and what was actually observed on the bottom by divers. Two factors attributed to this: (1) the SSS used in all of the surveys in the Unalaska area during 1992, except for Westward, could not differentiate between gas-filled wastes and rock substrates, and (2) it could not differentiate between soft substrates composed of seafood wastes without gas and surrounding soft substrate. As a result, the methods and equipment used (Westmar 500 SL SSS with Ross depth finder and MDL laser track ranging system coupled with CRA propriety software) may not be reliable for accurately detecting the aerial extent of waste fields on the bottom.

Water Quality Surveys

Alyeska Seafoods conducted water quality monitoring in the near field (within about 100 m) and in the far field (from 100 m to 1000 m down current from the point of discharge) and at a background station in Unalaska Bay. Near field monitoring was required twice per year, and far field monitoring was required for 14 consecutive days during four separate time periods each year. Alyeska combined the near and far field monitoring programs. The 100-m far field stations were replaced by monitoring all near field stations, as well as the far field (500 & 1000 m) and background stations, on a quarterly basis.

Water quality data on dissolved oxygen (DO), salinity, pH, and temperature were collected at the surface and depths of one, five, and one meter off the bottom at each station during the first (April 3 to 16, 1992) sampling period. Thereafter, water quality was measured at the surface and at one meter intervals down to one meter above the bottom.

Table C-1. Summary of Dissolved Oxygen Concentrations Measured Adjacent to Alyeska Seafood's Discharge and at a Background Station in Unalaska Bay.

Time Period 1992	Dissolved Oxygen Concentration mg/L					
	Near Field[1/]		Far Field[1/]		Background[2/]	
	Min	Max	Min	Max	Min	Max
Apr 3-16	7.5	15.5	8.0	14.5	9.5	13.5
Jun 2-15	7.5	16.0	8.0	16.0	9.0	15.0
Sept 1-14	1.5	14	1.5	10.0	6.0	10.5
Nov 3-16	6	13.5	7.5	11.0	8.5	10.5

Notes: 1/ All water depths and all stations.
2/ All water depths at one station.

DO measurements are summarized in Table C-1 for the four 14-day time periods. Although not shown in Table C-1, the general trend at each of the eight near field stations was a progressive decline in DO from June through mid September. During the initial days of the June survey, DO was commonly 11 to 15 mg/L at all depths and all stations, which were reduced to 7 to 10 mg/L by June 15, 1992. During the initial days of the September survey, DO at these stations and depths had deteriorated to 5 to 10 mg/L, which then fell to the 1 to 5 mg/L range by September 14, 1992. DO generally increased to 7 to 10 mg/L at these stations and depths by November. Although the data are less complete, the DO monitoring for the far field stations shows the same general trend during this time period.

At the background station, DO at all depths was mostly in the 10 to 14 mg/L range in early June, which was reduced to 9 to 10 mg/L by June 15. During the initial days of the September survey, DO at all depths at this station remained in the 9 to 10 mg/L range but was reduced to the 7 to 9 mg/L range by September 14. DO generally increased to 8 to 10 mg/L at all depths during the November monitoring period. The background station was located approximately 2.6 km from the point of discharge.

Unisea, Inc.

Dive Surveys of Seafood Wastes

In 1992, Unisea also completed a "baseline" dive survey in June and a year-end survey in November. The grid system laid out on the bottom around three separate discharge outfalls, one of which is no longer in use, covered approximately 17 acres. A total of five active discharge pipes are located in this area. Divers made detailed observations on waste thickness within the grid system.

In June, the divers found that the wastes were localized due to bottom topography and covered 7.868 acres. The volume of waste was estimated to be 22,364 cubic yards. Wastes observed ranged from ground crab shells to a semi-liquid fish waste having the consistency of molasses. Maximum waste thickness was estimated to be 25 ft.

In November, the divers found that 7.587 acres of bottom were covered with 19,521 cubic yards of waste. According to the divers observations, the area and volume of wastes were reduced by about 3 and 12 %, respectively, from that observed in June.

Side Scan Sonar Survey

Similar to the side scan survey for Alyeska, the report provides minimal information to substantiate diver observations. However, there appears to be good agreement on the overall outline of the waste pattern on the bottom when the side scan image is compared to the waste topographic figure developed from diver observations.

Water Quality Surveys

During 1992, Unisea conducted water quality surveys only at the far field stations (100, 500, & 1000 m) for 14 days, four times per year. The time periods were February 4 to March 4 (1st quarter), May 21 to June 8 (2nd quarter), August 24 to September 6 (3rd quarter), and November 18 to December 9 (4th quarter); consecutive daily sampling was not possible apparently because of adverse weather conditions.

The far field station locations were determined by placing a drogue at the outfall to identify water current direction. In numerous cases the drogue grounded inshore of the outfall, which required extrapolation for determining the direction of the water current and for positioning the 500 and 1000 m stations. In many cases the extrapolations appear to be somewhat arbitrary. For example, in several cases the 100 m station was located inshore of the outfall in shallow water and the 500 and 1000 m stations were positioned in deeper water. In other cases the 1000 m station was located in the shallower water than more proximal stations or was very close to Alyeska's outfall. These adjustments or extrapolations for station positions resulted in somewhat incongruous data sets for the 500 and 1000 m stations. Further, the background station was only approximately 1200 m from Unisea's outfall during the first quarter; it was subsequently moved about 620 m to the west.

Considering the above, the dissolved oxygen (DO) concentrations at only the 100 m stations were compared to the background

station, and did not include first quarter monitoring. During the May-June (2nd quarter) and November-December (4rd quarter) monitoring periods, there were generally no differences in D.O. at any depth when concentrations were compared between the 100 m and background stations. During the second quarter, DO was mostly above 8 mg/L at all depths at the 100 m and background stations. Similarly, during the fourth quarter, D.O. was mostly above 6 mg/L at these stations.

However, during the last half of the August-September monitoring period DO at the 100 m stations usually ranged from about 3.5 to 7 mg/L, which was lower than the 6 to 9 mg/L DO observed at the background station. The depressed DO at the 100 m stations was mainly found at water depths of 2 to 10 meters.

DO was not depressed below approximately 6 mg/L at the 500 and 1000 m stations during the first, second, and fourth quarters. However, DO levels of 4 to 5.5 mg/L were commonly observed at the 500 and 1000 m stations during the last half of the August-September monitoring period. DO at the background station was typically in the 6 to 9 mg/L range at this time.

The low DO levels at the 500 m stations were observed from the southwest to the north of Unisea's outfall, and most commonly were observed from near the surface to a water depth of 5 to 10 m.

With one exception, the low DO levels at the 1000 m stations were either observed close to Alyeska's outfall or below the sill in Captains Bay. The exception was on September 6 when monitoring found DO reduced to 4 to 5 mg/L at 2 to 3 m below the surface northwest of Unisea's outfall. This shallow surface layer of depressed DO was also present at the 500 m station.

Dutch Harbor Seafoods, LTD

This seafood processor discharges their wastes in the same disposal area used by Unisea. The dive and side scan sonar reports for Unisea are intended to fulfill this processor's requirements for monitoring waste accumulations on the bottom.

Royal Aleutian Seafoods, Inc.

Dive surveys of seafood waste accumulation, using the same methods used at Alyeska and Unisea, were conducted in June and November 1992. During the June survey, the divers found 3,095 cubic yards of waste covering 1.537 acres. The main deposit was 60 ft wide, 75 ft long, and had a maximum thickness of 3.9 ft. Some of the waste material to the south of the main deposit likely came from Alyeska's former outfall, which was located nearby.

In November 1992, the divers found that the amount of seafood waste in the outfall area was reduced by about 8 % from that observed in June. They calculated that 2,853 cubic yards of waste covered 1.485 acres, and the maximum waste depth measured was 2.8 ft. The divers noted that the main pile observed in May was nearly "completely dispersed by wave and storm action", and the clam population was the main form of distressed marine life in the area.

This outfall area is also apparently shown on the side scan sonar survey that was conducted in June 1992 for Alyeska. The side scan report shows roughly 6400 square feet (0.15 acres) of bottom covered by waste in the vicinity of this outfall, which is significantly less coverage than was observed by the divers.

Queen Fisheries, Inc.

Dive surveys were also conducted using the same methodology as was described above for Alyeska and Unisea. In June 1992, the divers observed a waste pile covering 0.681 acres and containing 520 cubic yards of material. The maximum waste depth measured was 5.5 ft. In November 1992, the accumulation of wastes had reduce to 467 cubic yards covering 0.464 acres. Maximum depth observed was 2 ft.

Compliance Reports from the Processor Discharging into Captains Bay

Westward Seafoods, Inc.

Dive Surveys of Seafood Wastes

Mid-year and year-end dive surveys of seafood waste accumulations on Bailey Ledge were completed by Westward during July 1991

and December 1991/January 1992, respectively. The volume of seafood waste increased significantly between the July and December/January survey periods. The maximum waste thickness measured increased from 1.5 ft in July to 5 ft at the end of the year. Further, the thickness of the waste increased throughout most of the survey area. The bottom area surveyed is about 1.2 acres, but wastes continued beyond the perimeter of the survey area during both survey periods.

During 1992, dive surveys of the seafood wastes present in the discharge area were conducted in May and October. For the May survey, a plan view drawing indicating the areal extent and thickness of accumulated wastes was not completed by the processor. None-the-less, the divers observed a main waste pile 15 ft thick and 40 ft in diameter in front of the outfall. The thickness of the wastes decreased to 4 ft at 125 ft, to 1 ft at 270 ft, and to less than 1 inch at 350 ft in front of the point of discharge.

Table C-2. Summary of Captains Bay Dissolved Oxygen Concentrations

(Measured by Westward Seafoods near their outfall, at far field stations in Captains Bay, and in Unalaska Bay during 1991)

Date in 1991	Dissolved Oxygen Concentrations mg/L 1/							
	Near Field Stations Captains Bay			Far Field Stations Captains Bay			Unalaska Bay Station	
	No. Stations	Min	Max	No. Stations	Min	Max	Min	Max
Jul 11	5	8.5	15	-	-	-	-	-
Jul 20	-	-	-	-	-	-	7	12
Jul 28	5	7	12	-	-	-	-	-
Jul 30	-	-	-	2	7	7	-	-
Aug 10	5	5.5	8	1	6	8	-	-
Aug 22	5	3.5	6.5	-	-	-	-	-
Aug 30	-	-	-	6	4	11.5	-	-
Sept 5	4	3.5	9	6	3	9	-	-
Sept 23	5	2.5	8.5	7	2.5	10	-	-
Oct 13	5	2.5	12.5	5	1	13	7	8
Nov 5	4	3	10.5	7	1.5	12	8	11
Nov 21	4	4	13	5	1	13+	-	-
Dec 17	4	6.5	12	2	3.5	13	-	-
Dec 18	-	-	-	6	3	12	8.5	11.5

Note: 1/ The minimum and maximum DO concentrations usually occurred at the deepest and shallowest water depths, respectively, at each station.

In October 1992, a plan view drawing with waste isopachs was completed. The main waste pile was reduced to 6 ft thick and 30 ft in diameter and about 1.5 acres of bottom were covered with waste within the area surveyed by the divers. Unlike the May survey, the bottom to the north (beyond the 200-ft survey radius) and in deeper water was not surveyed by the divers in October. Considering the waste thicknesses observed beyond the 200-ft radius in May and by projecting the waste thickness isopachs from the October survey into deeper water, it is apparent that wastes covered at least 2 acres of bottom and perhaps more if very light deposits (i.e., < 1 inch) are considered. Side scan sonar confirms that wastes are flowing down slope in this area.

Side Scan Sonar Survey

A June 1992 side scan sonar survey found 2550 square meters (0.6 acres) covered by medium and heavy wastes; the volume of these wastes was estimated to be about 3000 cubic meters (4000 cubic yards). Sonar imagery also showed what appeared to be unconsolidated material flowing down slope from the medium and heavy wastes, and an adjacent sand bottom with light seafood waste accumulations. The minimum detectable thickness of waste was not given.

Water Quality Surveys

In June 1991, Westward Seafoods initiated a water quality monitoring program at five (near field) stations within 500 ft (152 m) of their seafood waste outfall, at 7 (far field) stations in Captains Bay, and at one station in Unalaska Bay, which was near the background station used by Alyeska and Unisea (Table C-2). Dissolved oxygen (DO), salinity, pH, and temperature were measured at the surface and at one meter intervals down to one meter above the bottom. For various reasons, some stations were not occupied during each monitoring period.

DO concentrations did not appear to vary with tide conditions (ebb vs. flood), but there was a strong correlation between DO concentration and water depth. DO was usually highest at the surface and decreased with increasing water depth; the lowest concentrations were usually found at or near the bottom. One exception to this pattern occurred during August at some of the near field stations when DO decreased below 5 mg/L at and near the surface (at water depths ranging from 0 to 13 m). The DO at each of the Captains Bay far field stations at this time decreased below 5 mg/L at water depths of 32 to 56 m.

In September, the DO at the far field stations fell below 5 mg/L at water depths ranging from 26 m to 45 m. The layer of bottom water below 5 mg/L ranged from 3 to 50 m thick, depending on the water depth. In comparison, the DO at each of the near field stations fell below 5 mg/L at 31 to 36 m below the surface; the layer of bottom water below 5 mg/L ranged from 2 to 19 m thick.

This general stratification pattern of low DO water in the bottom of the Captains Bay basin persisted until December. However, the water depth where DO fell below 5 mg/L increased from 38 to 40 m in October to 60 to 70 m in December.

In 1992, Westward continued the water quality monitoring program mentioned above, except they added three additional far field stations and one station inside Iliuliuk Harbor (Table C-3). With two notable exceptions, the overall DO concentration patterns with increasing water depth observed during 1991 were also found during 1992. The first exception was in the near field in August when the DO in surface waters was usually well above 6 mg/L, but it was underlain by a 1 to 6 m layer of water with DO levels down to 3 mg/L that appeared to be below the pycnocline. DO levels increased below this layer only to decrease again with increasing water depth. This phenomenon was also observed at the far field stations located closest to the outfall.

The second exception was in late November when there was very little temperature stratification at any of the monitoring stations. As a result, DO concentrations were above 7 mg/L throughout the water column at all stations.

Table C-3. Summary of Captains Bay Dissolved Oxygen Concentrations (1992)

Date in 1992	Dissolved Oxygen Concentrations mg/L 1/									
	Near Field Stations Captains Bay			Far Field Stations Captains Bay			Unalaska Bay Station		Iliuliuk Harbor Station	
	No. Stations	Min	Max	No. Stations	Min	Max	Min	Max	Min	Max
Jan 16	-	-	-	1	8	10	-	-	-	-
Jan 20	3	8	13	3	8	12+	-	-	-	-
Feb 9	-	-	-	1	7	10	-	-	-	-
Feb 11	2	8	11.5	5	7.5	13	-	-	-	-
Mar 1	5	7.5	12.5	5	7	13	8.5	12	-	-
Mar 16	5	7.5	13.5	8	8	14+	9	13.5	-	-
Apr 7	5	8.5	15+	6	7.5	15+	8.5	14	-	-
Apr 22	5	9.5	15+	10	8	15+	10.5	15	-	-
May 17	5	8.5	14	7	9.5	14.5	9.5	15	-	-
May 30	5	9	15+	10	8.5	15+	-	-	-	-
Jun 16	4	7.5	12.5	9	8	12	-	-	-	-
Jun 29	5	7	13.5	10	6	15+	-	-	-	-
Jul 14	5	7	15	10	6	15+	7	14	-	-
Jul 25	5	4	15	10	5.5	15+	7.5	14	-	-
Aug 6	5	5	14.5	12	3	14.5	8.5	9	5.5	13
Aug 15	5	3	11	11	4	11	9.5	14	7	10
Aug 22	5	3	10	12	2	13	8	10.5	5	11
Sept 7	5	2.5	9	12	0.5	8.5	7.5	10.5	7	9
Sept 29	5	2	11	8	1.5	10	7.5	10	-	-
Oct 14	5	2.5	8.5	10	1	9	7.5	9.5	-	-
Nov 2	5	3	12	10	2	11.5	8	11	-	-
Nov 8	5	4	9	10	3	10	8	10	-	-
Nov 9	3	4	9	1	3	9	-	-	-	-
Nov 27	5	7	10.5	12	7	11	9	10	9.5	11
Dec 10	5	8.5	11.5	12	8	11	9	10.5	9.5	10.5
Dec 18	5	8.5	12.5	12	8.5	13.5	8.5	11.5	10	12

Note: 1/ With some exceptions as noted in the water quality discussion for Westward Seafoods, the minimum and maximum DO concentrations usually occurred at the deepest and shallowest water depths, respectively, at each station.

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 12, 1995

SUBJECT: License Limitation Program

ESTIMATED TIME
12 Hours

ACTION REQUIRED

Final action on proposed groundfish and crab license limitation program is scheduled.

BACKGROUND

The Council has been focusing on license limitation alternatives as part of the overall CRP initiative since early 1994, when it was decided that a first step in overall CRP development would be some type of license limitation program, to be followed by analysis and development of specific IFQ alternatives for these fisheries. Beginning in April 1994, the Council and industry have been considering and refining the various elements and options for the design of that license program. A formal EA/RIR, which contained an analysis of the overall proposed management program and the alternatives within that program to date, was reviewed by the Council at the September 1994 meeting. That document was released by the Council for public review, though additional analyses were requested of specific elements and options (configurations) identified by the Council in September (Appendix VII dated November 14). An additional analysis was also requested of the proposed 'A' and 'B' license concept (Appendix VIII dated November 14).

The Council was also interested in additional social impact analyses regarding specific program configurations identified as most viable. At the December 1994 meeting the AP and Council further refined the list of elements and options for public review - the configurations highlighted as most viable were different than those previously identified in Appendix VII and the Council felt that further public review was necessary prior to any final decisions on the program. The full list of elements and options, including highlighted areas, is included as Item C-3(a) in your notebook.

A Supplemental Analysis, which focused only on the highlighted alternatives, was prepared by Council staff and distributed on March 9, 1995. A summary of that Supplemental Analysis is included in your notebook as Item C-3(b), and will be the focus of the staff report at this meeting. The additional social impact analysis (bridging document) has also been completed under contract to Impact Assessment, Inc. (IAI) and was distributed in late March. That document focuses on the same primary configurations analyzed by Council staff in the March 9 Supplemental Analysis. Analysts from IAI will present findings from that document, and their previous baseline industry sector study, at this meeting.

Before examining the findings from the March 9 Supplemental Analysis, we would like to stress that the Supplemental is not a stand alone document, but is part of the overall analytical package for license limitation. It represents the most recent refinement of the Council's alternatives, but focuses primarily on distributional outcomes of various configurations under consideration, and identifies issues still requiring resolution regardless of the configuration chosen. Item C-3(c) in the notebooks contains a summary of all of the components of the package, and is titled 'Components of the License Limitation Analytical Package'. A more detailed page guide is also included for more specific reference to the previous documents.

As an example of items covered in these previous analyses (which are not addressed in the March 9 Supplemental, but which may be important to the decision process), the baseline EA/RIR contains:

* Detailed background of CRP development and current emphasis on License Limitation.

* Review of past and existing limited entry programs worldwide, including their successes and failures.

* General economic impacts expected from a License Limitation program.

* Discussions of transferability and use provisions which do not directly affect initial allocations; these issues are not covered directly in the Supplemental Analysis.

* Discussion of CDQ options and skipper licensing options.

* Evaluation of the proposed license alternatives in the context of the Council's CRP Problem Statement.

* Consistency of the proposed License program with NEPA, E.O. 12866, and National Standards.

* Methods of construction of the data bases, and assumptions made, as used in the analyses.

* Analysis of the Individual Transferable Pot Quota concept for crab fisheries.

* Detailed distributional tables for various possible program configurations for both groundfish and crab (as identified through September 1994).

Appendix VIII is another document of note, in that it contains the only analysis of the 'A' and 'B' license concept as proposed by MTC. Appendix VII is less relevant at this time because it has essentially been replaced by the March 9 Supplemental Analysis, which examines the highlighted configurations most recently identified by the Council. All of the components of the License Limitation analytical package would be incorporated into a single Secretarial review package following Council action on this issue.

Item C-3(d) in the notebooks contains letters received regarding the License Limitation program or CRP in general. These letters contain a variety of input, ranging from specific recommendations on license program configurations to more general comments on the overall CRP process. Included are suggestions for small vessel exemptions and jig gear exemptions under the License Limitation program. Also included are letters from Dave Harville and Walt Raber regarding disposition of lost vessels within the license limitation program. A letter from NPLA is also included which suggests Council consideration of some type of mechanism for combining licenses.

License Recipients

Current owners 10000
Current owner, then owner at the time of landing, then permit holders (no duplicate) 20000
Current owners, then permit holders (no duplicates) 30000
Current owners, owners at the time of landing, and permit holders (duplicates allowed) 40000

License Designations

No restrictions 1000
Catcher vessels & Catcher/processors 2000
Vessel length 3000
Inshore & Offshore 4000
Catcher vessels & Catcher/processors and vessel length 5000
Catcher vessels & Catcher/processors and Inshore & Offshore 6000
Inshore & Offshore and vessel length 7000
Catcher vessels & Catcher/processors, Inshore & Offshore, and vessel length 8000

→ + gear specific to Eliminate - fixed gear + vessel lengths

Qualifying Periods

Jan. 1, 1978 - Dec. 31, 1993 100
Jun. 28, 1989 - Jun. 27, 1992 200
Jun. 28, 1989 - date of final action 300
Jan. 1, 1990 - Dec. 31, 1993 400
The three years prior to the date of final action 500
Jun. 28, 1989 - Jun. 27, 1992 & the three years prior to the date of final action 600
Each of the three calendar years from 1/1/90 - 6/27/92 & the 365 days prior to final action, except for fixed gear P. cod use 6/23/91 - 6/27/92 rather than 1/1/90 - 6/27/92 700
Jan. 1, 1988 - Jun. 27, 1992 800

Landings Requirements For General License Qualification

One Landing 10
Two landings 20
5,000 pounds 30
10,000 pounds 40
20,000 pounds 50

Landings Requirements for Endorsement Qualification

One landing in qualifying period 1
Two landings in qualifying period 2
Three landings in qualifying period 3
Four landings in qualifying period 4
One landing in year prior to council action 5
Two landings in year prior to council action 6
Three landings in year prior to council action 7
Four landings in year prior to council action 8

Components and Alternative Elements Affecting the Ownership, Use, and Transfer of Licenses

Who May Purchase Licenses

1. Licenses could be transferred only to "persons" defined as those eligible to document a fishery vessel under chapter 121, Title 46 U.S.C. (greater than 50% U.S. ownership).
2. Licenses could only be transferred to "persons" with 76% or more U.S. ownership, with "grandfather" rights for license recipients with 75% or less U.S. ownership (Chapter 802, Title 46 U.S.C.).

Vessel/License Linkages

1. Vessel must be transferred with license.
2. Licenses may be transferred without a vessel, i.e., licenses may be applied to vessels other than the one to which the license initially was issued.

Options Regarding the Separability of Species and/or Area Designations

1. Species and/or Area designations are not separable, and shall remain as a single license with those initial designations.
2. Species and/or Area designations shall be treated as separable licenses and may be transferred as such.
3. Species and/or Area designations shall be regarded as separable endorsements which require the owner to also own a general license before use or purchase.

Vessel Replacement and Upgrades

1. No restrictions on vessel replacement or upgrades, except that the vessel must meet the "Use Restrictions" (License Designations) defined by the initial allocation.
2. Vessel may not be replaced or upgraded.
3. Vessel may be replaced or upgraded within the bounds of the 20% Rule defined in the moratorium proposed rule.

License Ownership Caps

1. No limit on the number of licenses or endorsements which may be owned by a "person."
2. No more than 5 area licenses per person with grandfather provisions.
3. No more than 10 area licenses per person with grandfather provisions.
4. No more than 15 area licenses per person with grandfather provisions.
5. No more than 5 fishery/area endorsements per person with grandfather provisions.
6. No more than 10 fishery/area endorsements per person with grandfather provisions.
7. No more than 15 fishery/area endorsements per person with grandfather provisions.

Vessel License Use Caps

1. No limit on the number of licenses (or endorsements) which may be used on a vessel.
2. No more than 1 area license (endorsement) may be used on a vessel in a given year.
3. No more than 2 area licenses (endorsements) may be used on a vessel in a given year.
4. No more than 3 area licenses (endorsements) may be used on a vessel in a given year.
5. No more than 4 area licenses (endorsements) may be used on a vessel in a given year.
6. No more than 5 area licenses (endorsements) may be used on a vessel in a given year.

Vessel Designation Limits

1. A vessel which qualifies for multiple designations (i.e., both as a CV and as a CP or as both inshore and offshore) under the use restriction component will be able to participate under any designation for which it qualifies.
2. A vessel which qualifies for multiple designations under the use restriction component must choose a single designation.

Buy-back/Retirement Program

1. No buy-back/retirement program.
2. Fractional license system. (Fractional licenses may be issued to vessel owners at the time of landing and/or permit holders.)
3. Industry Funded Buy-back Program with right of first refusal on all transfers of licenses.

Two-Tiered Skipper License Program

1. Do not implement a Two-Tiered Skipper License Program.
2. Implement a Two-Tiered Skipper License Program.

Community Development Quotas.

1. No CDQ allocations
2. 3% of any or all groundfish TACs for CDQs patterned after current program w/o sunset provision.
3. 7.5% of any or all groundfish TACs for CDQs patterned after current program w/o sunset provision.
4. 10% of any or all groundfish TACs for CDQs patterned after current program w/o sunset provision.
5. 15% of any or all groundfish TACs for CDQs patterned after current program w/o sunset provision.

Community Development Licenses.

1. No Community Development Licenses.
2. Grant an additional 3% non-transferable licenses to CDQs communities.
3. Grant an additional 7.5% non-transferable licenses to CDQs communities.
4. Grant an additional 10% non-transferable licenses to CDQs communities.
5. Grant an additional 15% non-transferable licenses to CDQs communities.

Other Provisions (Choose any or none of the following)

1. Licenses represent a use privilege. The Council may convert the license program to an IFQ program or otherwise alter or rescind the program without compensation to license holders.
2. Severe penalties may be invoked for failure to comply with conditions of the license.
3. Licenses may be suspended or revoked for multiple violations.
4. Implement a Skipper Reporting System which requires groundfish license holders to report skipper names, address, and service records to NMFS.
5. An analysis of the impact of various rent collection levels and mechanisms, and enforcement and program implementation costs is required.
6. Vessels which qualified for the NPFMC license limitation program that have been lost or destroyed are still eligible to receive earned licenses and endorsements.

7.

The Council is also considering alternatives which may have significant impacts on the license limitation program and on future phases of the CRP process.

1. Sunset. Include a sunset provision in the license limitation phase of the CRP process.

2. No license transfers. Implement a license limitation program that does not allow licenses to be transferred.

The Council is requesting the industry and public to consider these provisions in the context of the overall CRP development which includes an intent to phase into IFQ development.

CRAB LICENSES

Components and Alternative Elements Affecting Initial Assignment

	Numbering Scheme
License Classes	
A single class of licenses	100000
Two license classes with Class B Permits for participants from 1/1/80 - 12/31/93	200000
Two license classes with Class B Permits for participants from 1/1/88 - 12/31/93	300000
Nature of Licenses	
Single license for all species and areas	10000
Licenses for species (e.g., *C. opilio*, *C. bairdi*, Red, Blue and Brown King Crab)	20000
Licenses for each species/area combination	30000
License Recipients	
Current owners	1000
Current owners and permit holders	2000
License Designations	
No restrictions	100
Catcher vessels & Catcher/processors	200
Vessel length	300
Catcher vessels & Catcher/processors and vessel length	400
Qualifying Period	
Jan. 1, 1978 - Dec. 31, 1993.	10
6/28/89 - 6/27/92 --- (6/29/80 - 6/25/83 for D.H. Red, 6/29/85 - 6/25/88 for Prib Blue).	20
6/28/89 - 6/27/92 --- (6/29/80 - 6/25/83 for D.H. Red & 6/29/85 - 6/25/88 for Prib. Blue. These two groups must also have made a landing in any federally managed crab fishery between 6/28/89-6/27/92. For Norton Sound Red and Blue King Crab fisheries, and for Prib. Red King Crab, must have made a landing in 1993 or 1994.	30
1/1/92 - 12/31/94 --- (6/29/80 - 6/25/83 for D.H. Red & 6/29/85 - 6/25/1988 for Prib. Blue. These two groups must also have made a landing in any federally managed crab fishery between 1/1/92-12/31/94. For Norton Sound Red and Blue King Crab fisheries, and for Prib. Red King Crab, must have made a landing in 1993 or 1994.	40
1/1/88 - 6/27/92	50
Minimum landings	
No minimum	1
1 landing for Red & Blue King, 3 landings for Brown King, *C. opilio*, & *C. bairdi*	2
3 landings of King or Tanner crab from federally managed fisheries during the qualifying period	3

Components and Alternative Elements Affecting the Ownership, Use, and Transfer of Licenses

Who May Purchase Licenses

1. Licenses could be transferred only to "persons" defined as those eligible to document a fishery vessel under chapter 121, Title 46 U.S.C.
2. Licenses could be transferred to "persons" with 76% or more U.S. ownership, with "grandfather" rights for license recipients with 75% or less U.S. ownership (Chapter 802, Title 46 U.S.C.).
3. Licenses are non-transferable.

Vessel/License Linkages

1. Vessel must be transferred with license.
2. Licenses may be transferred without a vessel, i.e., licenses may be applied to vessels other than that to which the license was initially was issued.

Options Regarding the Separability of Species and/or Area Designations

1. Species and/or Area designations are not separable, and shall remain grouped as in the initial allocation.
2. Species or Area designations shall be treated as separable licenses and may be transferred as such.
3. Species or Area designations shall be regarded as separable endorsements which require the owner to also own a more general license before use or purchase.

Vessel Replacement and Upgrades

1. No restrictions on vessel replacement or upgrades, except that the vessel must meet the "License Designations" defined by the initial allocation.
2. Vessel may not be replaced or upgraded.
3. Vessel may be replaced or upgraded within the bounds of the 20% Rule as defined under the moratorium proposed rule.

License Ownership Caps

1. No limit on the number of licenses or endorsements which may be owned by a "person."
2. No more than 5 area licenses per person with grandfather provisions.
3. No more than 10 area licenses per person with grandfather provisions.
4. No more than 15 area licenses per person with grandfather provisions.
5. No more than 5 fishery/area endorsements per person with grandfather provisions.
6. No more than 10 fishery/area endorsements per person with grandfather provisions.
7. No more than 15 fishery/area endorsements per person with grandfather provisions.

Buy-back/Retirement Program

1. No buy-back/retirement program.
2. Fractional license system. (Fractional licenses may be issued to permit holders.)
3. Industry Funded Buy-back Program with right of first refusal on all transfers of licenses.

Two-Tiered Skipper License Program

1. Do not implement a Two-Tiered Skipper License Program.
2. Implement a Two-Tiered Skipper License Program.

Community Development Quotas.

1. No CDQ allocations.
2. Set aside 3% of crab fisheries with GHLs for CDQs patterned after current program w/o sunset provision.
3. Set aside 7.5% of crab fisheries w/GHLs for CDQs patterned after current program w/o sunset provision.
4. Set aside 10% of crab fisheries w/GHLs for CDQs patterned after current program w/o sunset provision.
5. Set aside 15% of crab fisheries w/GHLs for CDQs patterned after current program w/o sunset provision.

Community Development Licenses.

1. No Community Development Licenses.
2. Grant an additional 3% non-transferable licenses to CDQs communities.
3. Grant an additional 7.5% non-transferable licenses to CDQs communities.
4. Grant an additional 10% non-transferable licenses to CDQs communities.
5. Grant an additional 15% non-transferable licenses to CDQs communities.

Other Provisions (Choose any or none of the following)

1. Licenses represent a use privilege. The Council may convert the license program to an IFQ program or otherwise alter or rescind the program without compensation to license holders.
2. Severe penalties may be invoked for failure to comply with conditions of the license.
3. Licenses may be suspended or revoked for multiple violations.
4. Implement a Skipper Reporting System which requires groundfish license holders to report skipper names, address, and service records to NMFS.
5. An analysis of the impact of various rent collection levels and mechanisms, and enforcement and program implementation costs is required.
6. No Future Super-exclusive Area will be proposed.
7. Catcher processor vessels are defined as: those vessels which were required to carry a mandatory State of Alaska Shellfish Observer and are capable of pulling (hauling) pots and immediately processing harvested crab.
8. Vessels which qualified for the NPFMC license limitation program that have been lost or destroyed are still eligible to receive earned licenses and endorsements.

Individual Transferable Pot Quota System

In addition to the components above, an Individual Transferable Pot Quota (ITPQ) System Alternative has been proposed in concept only. Under this option, the components affecting the initial assignment of crab licenses will remain unchanged. However, once it is decided which persons qualify for which vessel size and processing designations, licenses would be linked to a limited number of pots. Pots could be transferred to meet individual vessel requirements. Many of the component sets regarding the use and transferability of licenses may not apply under a ITPQ system. The Council will have to specify in more detail if additional analysis of the ITPQ system is desired. Discussion of pot quotas can be found in Appendix V to the main EA/RIR.

The Council is also considering alternatives which may have significant impacts on the license limitation program and on future phases of the CRP process.

1. Sunset. Include a sunset provision in the license limitation phase of the CRP process.

2. No license transfers. Implement a license limitation program that does not allow licenses to be transferred.

The Council is requesting the industry and public to consider these provisions in the context of the overall CRP development which includes an intent to phase into IFQ development.

EXECUTIVE SUMMARY

of the

SUPPLEMENTAL ANALYSIS OF PROPOSED LICENSE LIMITATION ALTERNATIVES

Relationship to Previous Document - The Numbering System

In the baseline EA/RIR dated September 18, 1994, we introduced the numbering system for the elements and options for both groundfish and crab license programs. An example of the current numbering structure for a specific alternative is listed below:

* single class of licenses (no 'B' permits)	1000000
* licenses for fisheries/FMP sub-areas	B00000
* issued to current owners	10000
* designations of CV/CP and vessel length	5000
* qualifying period of 1/1/88 - 6/27/92	800
* one landing minimum for license	10
* one landing for endorsement	1

Summing the elements results in Configuration #1B15811.

The Council will need to choose one element from each of the major components when structuring the initial allocation of licenses for a final license limitation program. Once these basic decisions are made by the Council, additional decisions will need to be made regarding the elements and options which affect ownership, use, and transferability.

When reading the information contained in the Supplemental Analysis, the reviewer should keep in mind the continued relevance of the baseline EA/RIR. The summaries and conclusions drawn in that document are still valid. The Supplemental Analysis is intended to provide specific information, primarily distributional, on the highlighted alternatives identified by the Council at the December 1994 meeting.

ANALYSIS OF SPECIFIC ALTERNATIVES

The following sections examine the specific distributional results of the highlighted alternatives under consideration. In these sections, core configurations are examined, with additional distributional tables contained at the end of the document.

Distribution of Groundfish Licenses and Endorsements

The supplemental analysis presented the distribution of groundfish licenses and endorsements based on alternatives selected by the Council at their December 1994 meeting. The discussion concentrated on two configurations (1B15811 and 1B15411) which were highlighted by the Council. All the tables in the Supplemental Analysis are based on reported catch data.

Table 2.1.1

Configuration 1B15811		Licenses issued to Current Vessel Owners Based on the Vessel's January 1, 1988 - June 27, 1992, Catch History																											
		Current Owner's State of Residence																											
		Alaska									Other									Total									
		CV				CP					CV				CP					CV				CP					
Area	Species	< 60	60-125	>125	Total	< 60	60-125	>125	Total	Alaska Total	< 60	60-125	>125	Total	< 60	60-125	>125	Total	Other Total	< 60	60-125	>125	Total	< 60	60-125	>125	Total	Licenses
Aleutian Islands	Atka Mackerel	1	2	0	3	0	0	8	8	11	0	7	0	7	2	4	35	41	48	1	9	0	10	2	4	43	49	59
	Greenland Turbot	8	6	0	12	0	3	7	10	22	8	14	5	27	2	14	26	44	71	14	20	5	39	2	17	35	54	93
	Other Flatfish	0	1	0	1	0	0	5	5	6	0	7	2	9	1	8	25	32	41	0	8	2	10	1	8	30	37	47
	Pacific Cod	20	10	0	30	0	5	9	14	44	13	21	9	43	3	18	58	78	121	33	31	9	73	3	21	68	92	165
	Pollock	0	1	0	1	0	0	8	8	9	6	18	10	26	4	6	47	56	84	0	18	10	29	4	6	55	64	93
	Rockfish	10	6	0	16	0	3	9	12	30	11	24	5	40	4	18	49	69	109	21	32	5	58	4	19	58	81	139
	Rock Sole	0	0	0	0	0	0	5	5	5	0	3	0	3	0	3	34	37	40	0	3	0	3	0	3	39	42	46
	Sablefish	0	1	0	1	0	1	7	8	9	0	3	0	3	1	3	17	21	24	0	4	0	4	1	4	24	29	33
	Squid	0	1	0	1	0	0	1	1	2	0	1	0	1	0	0	3	3	4	0	2	0	2	0	0	4	4	6
	Yellowfin Sole	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	0	0	0	0	3	3	3
AI Species Endorsements		37	30	0	67	0	12	59	71	138	32	86	31	161	17	67	300	384	545	69	128	31	228	17	79	359	455	683
AI Vessels (Configuration 1315811)		23	13	0	36	0	5	9	14	50	20	39	15	74	4	17	65	86	160	43	52	15	110	4	22	74	100	210
Bering Sea	Atka Mackerel	1	8	0	9	0	1	8	9	18	0	47	11	58	2	2	36	40	98	1	55	11	67	2	3	44	49	116
	Greenland Turbot	14	13	0	27	0	5	10	15	42	8	71	17	96	4	19	61	84	180	22	84	17	123	4	24	71	99	222
	Other Flatfish	9	21	0	30	0	3	11	14	44	4	77	20	101	4	16	64	86	187	13	98	20	131	4	21	75	100	231
	Pacific Cod	61	45	2	128	1	8	11	18	146	36	144	29	209	4	22	80	106	315	117	189	31	337	5	28	91	124	461
	Pollock	12	24	0	36	0	3	11	14	50	7	68	19	114	4	18	70	92	206	19	112	19	150	4	21	81	106	256
	Rockfish	20	17	0	37	0	4	10	14	51	15	70	18	103	3	22	57	82	185	35	87	18	140	3	26	67	96	236
	Rock Sole	5	14	0	19	0	2	9	11	30	0	63	16	79	4	13	63	80	159	5	77	16	98	4	15	72	91	189
	Sablefish	0	1	0	1	0	0	6	6	7	1	23	6	30	0	4	23	27	57	1	24	6	31	0	4	29	33	64
	Squid	0	2	0	2	0	0	4	4	6	0	9	7	16	0	1	9	10	26	0	11	7	18	0	1	13	14	32
	Yellowfin Sole	6	10	0	16	0	1	7	8	24	3	54	16	73	4	9	50	63	136	9	64	16	89	4	10	57	71	160
BS Species Endorsements		148	155	2	305	1	25	87	113	418	74	648	159	879	29	128	513	670	1,549	222	801	161	1,184	30	153	600	783	1,967
BS Vessels (Configuration 1315811)		66	49	2	117	1	6	11	18	135	43	150	30	223	4	25	80	109	332	129	196	32	360	5	31	91	127	487
Central Gulf	Atka Mackerel	2	0	0	2	0	0	1	1	3	0	0	0	0	0	1	6	7	7	2	0	0	2	0	1	7	8	10
	Deep Water Flatfish	17	31	0	48	0	2	5	7	55	3	38	1	42	1	12	35	48	90	20	69	1	90	1	14	40	55	145
	Flathead Sole	13	29	0	42	0	1	4	5	47	1	35	2	38	0	6	18	24	62	14	64	2	80	0	7	22	29	109
	Pacific Cod	757	121	6	884	1	5	8	14	898	128	118	15	261	1	19	45	65	326	885	239	21	1,145	2	24	53	79	1,224
	Pollock	139	39	0	178	0	4	6	10	188	12	72	7	91	3	13	38	54	145	151	111	7	269	3	17	44	64	333
	Rockfish	551	94	5	650	1	8	6	15	665	147	98	11	256	3	20	45	66	324	698	192	16	906	4	26	63	83	989
	Shallow Water Flatfish	37	33	0	70	0	2	6	8	78	4	50	7	61	0	9	34	43	104	41	83	7	131	0	11	40	51	182
CG Species Endorsements		1,516	347	11	1,874	2	20	38	60	1,934	295	411	43	749	8	60	221	309	1,058	1,811	756	54	2,623	10	100	259	369	2,992
CG Vessels (Configuration 1315811)		956	141	7	1,107	1	8	8	16	1,123	212	153	20	385	4	24	52	80	465	1,171	294	27	1,492	5	30	81	96	1,588
Eastern Gulf	Atka Mackerel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Deep Water Flatfish	8	1	0	9	0	0	2	2	11	3	3	0	6	0	1	11	12	18	11	4	0	15	0	1	13	14	29
	Flathead Sole	5	1	0	6	0	0	2	2	8	2	1	1	4	0	0	4	4	8	7	2	1	10	0	0	6	6	16
	Pacific Cod	1,132	26	2	1,160	1	0	5	6	1,166	144	14	1	159	0	2	15	17	176	1,276	40	3	1,319	1	2	20	23	1,342
	Pollock	19	1	0	20	0	0	4	4	24	7	0	0	7	0	2	9	11	18	26	1	0	27	0	2	13	15	42
	Rockfish	1,035	30	4	1,069	1	4	5	10	1,079	229	20	4	253	0	9	22	31	284	1,264	50	8	1,322	1	13	27	41	1,363
	Shallow Water Flatfish	18	2	0	20	0	0	3	3	23	4	2	0	6	0	1	15	16	22	22	4	0	26	0	1	18	19	45
EG Species Endorsements		2,217	61	6	2,284	2	4	21	27	2,311	389	40	6	435	0	15	76	91	526	2,606	101	12	2,719	2	19	97	118	2,837
EG Vessels (Configuration 1315811)		1,630	40	6	1,676	1	4	5	10	1,686	293	31	7	331	0	10	24	34	365	1,923	71	13	2,007	1	14	29	44	2,051
Western Gulf	Atka Mackerel	0	0	0	0	0	1	7	8	8	0	7	1	8	0	0	16	16	24	0	7	1	8	0	1	23	24	32
	Deep Water Flatfish	13	8	0	21	0	3	6	9	30	5	32	4	41	0	13	24	37	78	18	40	4	62	0	16	30	46	108
	Flathead Sole	1	4	0	5	0	1	5	6	11	0	26	3	29	0	4	18	22	51	1	30	3	34	0	5	23	28	62
	Pacific Cod	150	22	1	173	0	5	8	13	186	19	87	14	100	0	21	40	61	161	169	68	15	273	0	26	48	74	347
	Pollock	16	8	0	24	0	2	6	8	32	4	49	12	65	2	10	34	46	111	20	57	12	89	2	12	40	54	143
	Rockfish	50	16	0	66	0	4	9	13	79	38	66	10	114	0	18	36	54	168	88	82	10	180	0	22	45	67	247
	Shallow Water Flatfish	9	8	0	17	0	2	6	8	25	6	39	8	52	0	7	24	31	83	14	47	8	69	0	9	30	39	108
WG Species Endorsements		239	60	1	306	0	16	47	65	371	71	266	52	409	2	73	192	267	676	310	352	53	715	2	91	239	332	1,047
WG Vessels (Configuration 1315811)		170	29	1	208	0	5	9	14	222	52	88	20	160	2	23	48	73	233	231	117	21	349	2	28	57	87	456
Total Endorsements		4,157	659	20	4,836	5	79	252	336	5,172	861	1,481	291	2,633	56	383	1,302	1,721	4,354	5,018	2,140	311	7,469	61	442	1,654	2,097	9,566
BSAI Vessels (Configuration 1315811)		29	6	0	34	0	0	1	1	35	12	38	10	60	1	3	17	21	81	38	46	10	94	1	3	18	22	116
GOA Vessels (Configuration 1315811)		2,328	115	10	2,451	0	0	1	1	2,452	384	64	8	456	1	2	2	5	461	2,710	179	18	2,907	1	2	3	6	2,913
BSAI and GOA Vessels (Configuration 1315811)		70	42	2	114	1	6	10	17	131	37	114	22	173	3	23	65	91	264	107	156	24	287	4	29	75	108	395
Total Vessels (Configuration 1315811)		2,422	165	12	2,599	1	6	12	19	2,618	433	216	40	689	5	28	84	117	806	2,855	381	52	3,288	6	34	96	136	4,134

*Not [illegible] was used for this option are defined as WG, CG+WY, EY+SO in the GOA and AI and BS in the BSAI.

Table 2.1.1 represents the distribution of licenses from configuration 1B15811 which has a qualifying period of January 1, 1988 - June 27, 1992 and issue species/area endorsements. Because the structure of the groundfish tables presented is the same, a brief explanation of one of the tables will aid the reader in understanding the groundfish tables included in the Supplemental Analysis.

Reading from the upper left corner of the numerical portion of this table, there is one Alaska owned catcher vessel, less than 60 ft., that would receive an endorsement for Atka mackerel in the Aleutian Islands area. Twenty vessels would be granted Pacific cod endorsements, 6 for Greenland turbot, and 10 vessels would receive endorsements for rockfish. Moving down the table to the row labeled "AI Species Endorsements," there are 37 Aleutian Island species endorsements issued to Alaska catcher vessels less than 60 ft. The 37 endorsements are calculated by summing all the species endorsements issued for the Aleutian Islands. In this case the endorsements are mainly for Pacific cod and rockfish.

The next row, labeled "AI Vessels (Configuration 1315811)," shows the number of vessels in this category licensed to fish in the Aleutian Islands. A total of 23 Alaskan owned catcher vessels, less than 60 ft., would receive an endorsement. Each of the FMP sub-area groups listed in this table can be read the same way. The "Total Endorsements" row shows the number of species/area endorsements that would be issued. Summing the endorsements from the Eastern Gulf, Central Gulf, Western Gulf, Aleutian Islands, and Bering Sea there are a total of 4,157 endorsements issued in this small vessel category. The last four rows of this table show the total number of vessels that would be issued licenses. The rows labeled "BSAI Vessels," "GOA Vessels," and "BSAI and GOA Vessels (Configuration 1215811)" indicate the number of vessels that would be licensed to fish the BSAI only, the GOA only, and both the GOA and BSAI, respectively. This is, effectively, an FMP-area license based on the January 1, 1988 - June 27, 1992 qualification period, as opposed to a species/area specific license. Small catcher vessels would have 26 vessels licensed to fish in only the Bering Sea, 2,326 vessels licensed to fish only the GOA, and 70 vessels licensed to fish in both the GOA and BSAI. Summing these three rows results in a total of 2,422 vessels which would be licensed from this small catcher boat category, and would receive the 4,157 total species/area endorsements.

Table 2.1.4 provides a summary of the number of groundfish vessels licensed under various qualifying periods and landings requirements. The core configurations 1B15811 and 1B15411 are listed along with 1B15X11 by catcher and catcher processor vessels. The number of vessels qualifying under the 20,000 pound minimum are also provided in the table. The two core configurations would grant licenses to 3,424 and 3,283 vessels respectively. Adding a 20,000 pound minimum to the license requirement reduces the fleet size by more than 50% in both cases.

Table 2.1.4 Number of groundfish vessels under various qualifying periods and landings requirements compared to 1993.				
Period	Configuration # 1B15___	Numbers of Vessels		
		Catchers	Catcher Processors	Total
	"Current" Fleet			
1993	X11	1,541	121	1,662
	One Landing Minimum for License			
1990-1993	411	3,149	134	3,283
1988-June 1992	811	3,288	136	3,424
	20,000 pound Minimum for License			
1990-1993	451	1,010	132	1,142
1988-June 1992	851	916	133	1,049

License Ownership Caps for Groundfish

The Council may limit the number of licenses a "person" (defined as the current vessel owner) can own under the license program. The impacts of license caps will depend largely on the configuration of licenses/endorsements approved by the Council, and the level at which the cap is applied. If the Council wants to limit the number of area or species endorsements an owner could possess, they could make that decision independent of the vessel license cap.

The placement of a cap will affect a relatively few vessel owners, whether it is set at 5, 10, or 15 licenses. Such a cap would have much more significant implications if placed at the sub-area or species/sub-area level.

Another issue to consider with regard to ownership caps is "who officially owns the vessel"? For example, an owner of two vessels may have chosen to limit his liability exposure by forming two corporations (A and B), each owning one of the vessels. The vessel registration files would report Corporation A as the current owner of one vessel and Corporation B as the owner of another. The corporation owner(s) would not be identified in the data set, and the ownership cap would be circumvented.

Distribution of Crab Licenses and Endorsements

Two crab license configurations (131431 and 131441) are examined in detail along with the 1993 configuration 1314X1. The remainder are presented in the tables at the end of the document. The only difference between the two core configurations is the time period in which qualifying landings were allowed. The crab tables were constructed using the same basic designed as the groundfish tables. Therefore, the information presented earlier on how to read the groundfish tables applies to the crab tables as well. For example, the bottom line of the Configuration 131431 table presents the total number of crab vessels licensed under that alternative. Because it is the total number of vessels receiving a licenses, regardless of species or area, the bottom line is actually Configuration 111431 (i.e. a "general" Westward Region crab license). Configuration 131431 and 131441 would license 454 and 388 vessels, respectively (Table 2.2.4). Configuration 1314X1 (the 1993 time period) is included for comparison purposes and would license 368 vessels. Dual qualification periods and minimum landings requirements both reduce the size of the fleet, but the fleet reductions are generally less than 25%.

Table 2.2.4 Number of crab vessels under various qualifying periods and landings requirements compared to 1993.				
Landings Requirements	Configuration # 1314___	Numbers of Vessels		
		Catchers	Catcher Processors	Total
"Current" Fleet 1993	X1	346	22	368
No Minimum	21*	523	28	551
	31	428	26	454
	41	362	26	388
	51	375	27	402
One for Red and Blue	32	419	26	445
Three for Brown and Tanner	52	358	27	385
Three for King or Tanner	33	328	26	354
	53	332	27	359

*Qualifying Periods:

2-: 6/28/89 - 6/27/92 — 6/29/80 - 6/25/83 for D.H. Red, 6/29/85 - 6/25/88 for Pribilof Blue 20

3-: 6/28/89 - 6/27/92 — 6/29/80 - 6/25/83 for D.H. Red, 6/29/85 - 6/25/88 for Pribilof Blue. These two groups must also have made a landing in any federally managed crab fishery between 6/28/89 - 6/27/92. For Norton Sound Red and Blue King Crab fisheries, and for Pribilof Red King Crab, must have made a landing in 1993 or 1994 30

4-: 1/1/92 - 12/31/94 — 6/29/80 - 6/25/83 for D.H. Red and 6/29/85 - 6/25/88 for Pribilof Blue. These two groups must also have made a landing in any federally managed crab fishery between 1/1/92 - 12/31/94. For Norton Sound Red and Blue King Crab fisheries, and for Pribilof Red King Crab, must have made a landing in 1993 or 1994 40

5-: 1/1/88 - 6/27/92 50

Groundfish License and Endorsement Structures

Three possible (umbrella) license structures for groundfish and their impact on fleet growth are discussed.

Non-Separable FMP Licenses

Under this FMP umbrella license system, licenses would be issued for GOA, BSAI, and BSAI/GOA if a license was earned in both areas. The number of vessels fishing groundfish in the North Pacific would be capped at the number of vessels initially licensed. This license structure is represented in Figure 2.3.1

Separable FMP Licenses

The number of vessels fishing groundfish in the North Pacific could increase over the number of vessels initially licensed under separable FMP licenses (Figure 2.3.2). Given the license distribution in configuration 1B15811 and this FMP umbrella license, we can determine the maximum number of vessels that could fish in the North Pacific groundfish fishery at any one time. Because 395 fishers hold licenses for both the GOA and BSAI these fishers could sell one FMP license and continue to fish the other. This means that 395 new vessels could enter the fishery.

Figure 2.3.1

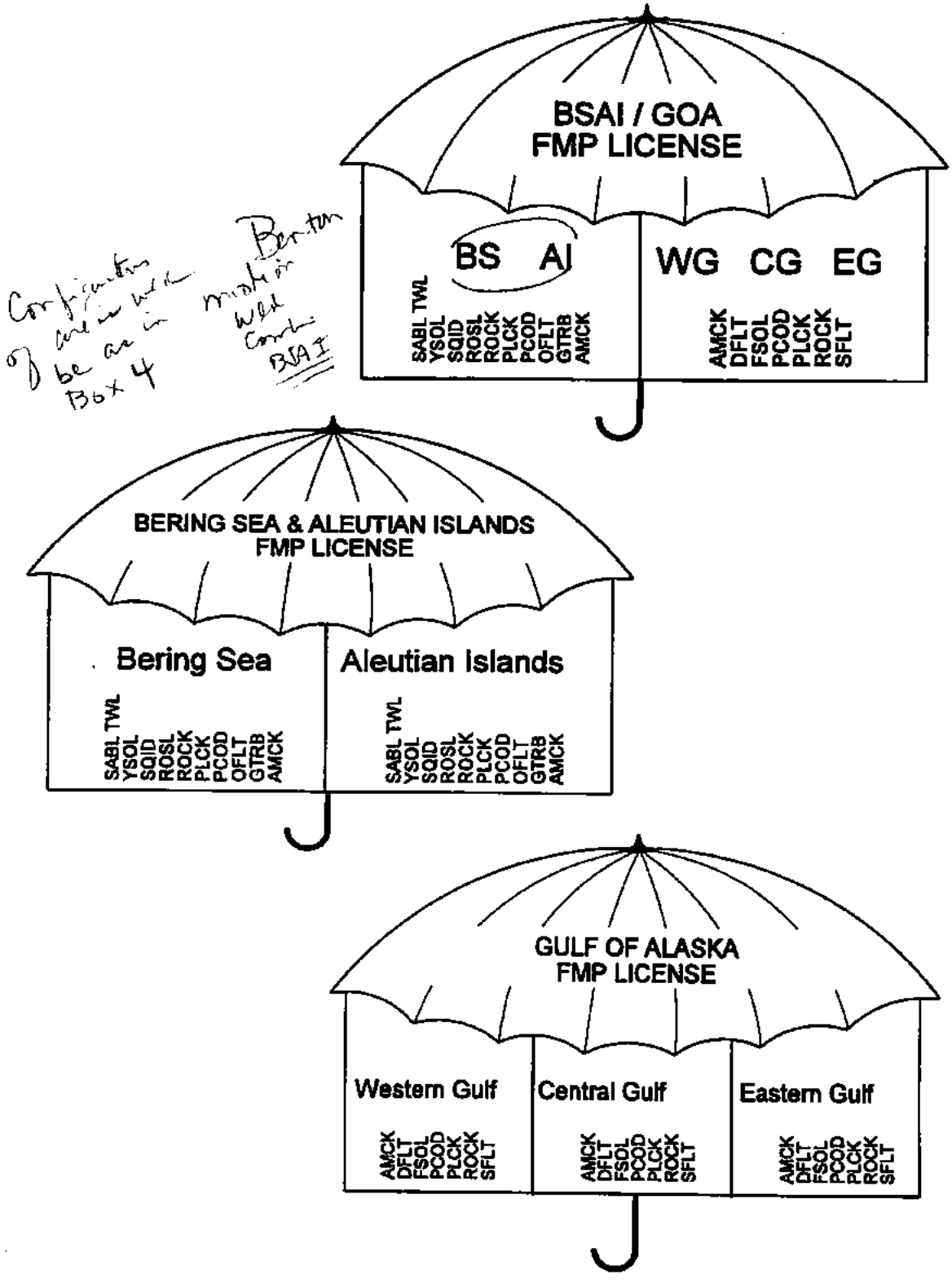
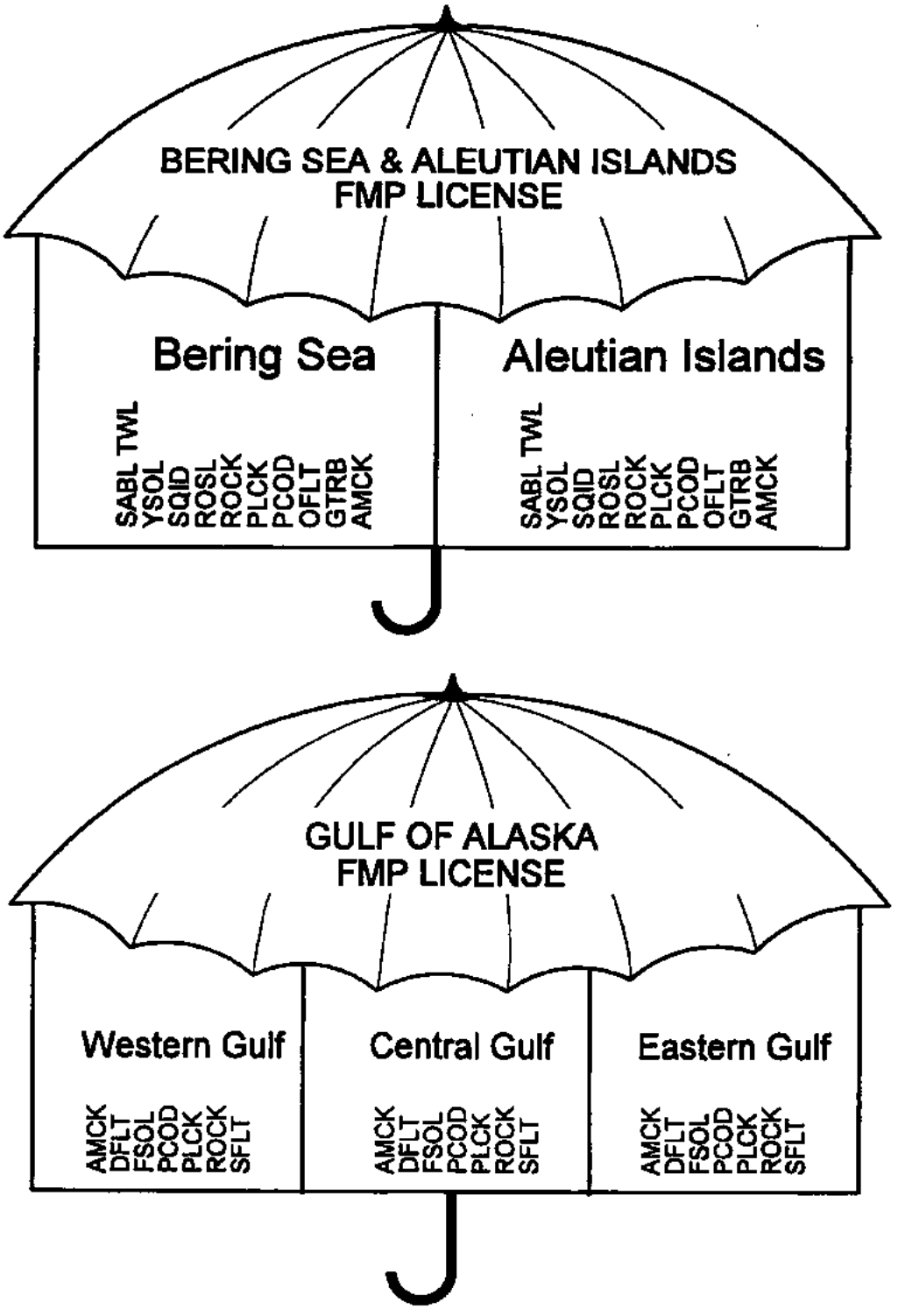

BSAI / GOA
FMP LICENSE
BS
AI
WG
CG
EG
SABL TWL
YSOL
SQID
ROSL
ROCK
PLCK
PCOD
OFLT
GTRB
AMCK
AMCK
DFLT
FSOL
PCOD
PLCK
ROCK
SFLT
BERING SEA & ALEUTIAN ISLANDS
FMP LICENSE
Bering Sea
Aleutian Islands
SABL TWL
YSOL
SQID
ROSL
ROCK
PLCK
PCOD
OFLT
GTRB
AMCK
GULF OF ALASKA
FMP LICENSE
Western Gulf
Central Gulf
Eastern Gulf
AMCK
DFLT
FSOL
PCOD
PLCK
ROCK
SFLT

Figure 2.3.2


BERING SEA & ALEUTIAN ISLANDS
FMP LICENSE
Bering Sea
SABL TWL
YSOL
SQID
ROSL
ROCK
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PCOD
OFLT
GTRB
AMCK
Aleutian Islands
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GTRB
AMCK
GULF OF ALASKA
FMP LICENSE
Western Gulf
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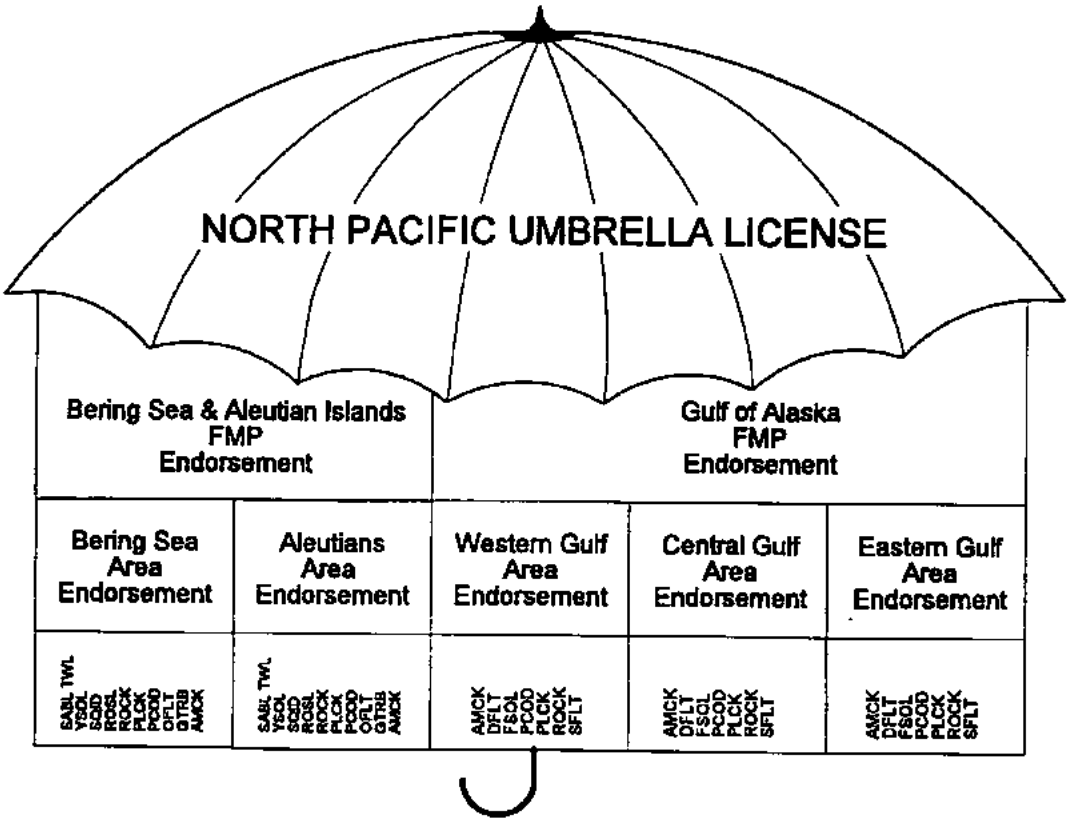
Central Gulf
AMCK
DFLT
FSOL
PCOD
PLCK
ROCK
SFLT
Eastern Gulf
AMCK
DFLT
FSOL
PCOD
PLCK
ROCK
SFLT

North Pacific Umbrella License

This alternative would issue a general license for the entire North Pacific (Figure 2.3.3). From the perspective of a fishery manager trying to limit the capacity of the fleet with an effective License Limitation Program, the non-separable and North Pacific license structures, which limit the number of vessels in the fishery to that number initially issued licenses, may be more desirable than the separable FMP licenses which could potentially allow increases in the fleets size.

Figure 2.3.3



ADDITIONAL ISSUES

In addition to the specific analyses contained above, there are issues pertaining to any license limitation configuration chosen which should be addressed as the Council makes a final decision on this program. Some of these issues are addressed in this section.

Interpretation of 20% Upgrade Allowance

One of the critical components of any license limitation program adopted will be the allowances for vessel replacements, or upgrades of existing vessels. The Council's options relative to this issue include vessel designations, such as catcher vs. catcher-processor or inshore vs. offshore, as well as vessel length categories. The intent would be to allow licenses, or endorsements, to be transferred between vessels as long as they did not violate the vessel designations or length categories. In addition, the Council is also considering using the 20% upgrade rule as it did with the general groundfish and crab moratorium. In order to be an effective capacity control under the license limitation program, this restriction would be placed not only on vessel replacements (where a change in vessel and ownership has occurred) but also with regard to upgrading an initially qualified vessel. The analysis assumes that the 20% rule is applied across the board.

Combining of Licenses

A related issue with regard to vessel upgrades has to do with combining licenses. For example, if a vessel owner had two qualified vessels and both were lost, that vessel owner might wish to combine the two into a single vessel of greater length than the original vessels. Another scenario might be where a 'large' vessel wished to acquire a license, but none was available in that size category. A possible recourse would be to allow that vessel to acquire two or more smaller vessel licenses and convert them to a single large vessel license.

The PFMC has developed a formula which converts lengths to capacity equivalents in order to implement this allowance. For example, under that formula two 125 ft. vessels represent catching capacity equivalent to a single 185 ft. vessel. Such a program would have to be tailored to the specifics of the NPFMC's program, such as potential species/area endorsements, vessel length categories, and other vessel designations. This option could be developed as a follow-up amendment to the overall license limitation program.

Definition of Term 'Grandfather' Relative to Foreign Ownership Provisions

Though the analyses to date offer very little specific to the issue of foreign ownership, there has been considerable discussion of the issue and legal opinions from NOAA General Counsel regarding the extent to which the Council may restrict allocations and transfers of licenses based on levels of foreign ownership. Legal opinions offered to date indicate that initial allocations of licenses (or IFQs) may not be restricted beyond the current foreign ownership allowances. However, the same legal opinion states that it may be allowable to restrict subsequent transfers to only those with 75% U.S. ownership, if the Council can justify such a restriction. As such, one of the options for transfers stipulates 75% U.S. ownership, with a 'grandfather' provision.

It is the definition of 'grandfather' which needs to be clarified. Under the current wording it is unclear what is meant by 'grandfather.' If it simply means that the restriction would not apply to initial allocations, then the term 'grandfather' is really moot in the context of the transfer provisions. The other interpretation of 'grandfather,' and the one which is relevant to transfer provisions, would be that initial recipients would not have to satisfy the 75% U.S. ownership requirement in order to acquire additional licenses/endorsements.

Species not Identified in List of Targets for Licenses

Some species for which a TAC exists are not identified in the species lists for the license limitation alternatives. These are GOA sablefish (trawl), arrowtooth flounder, GOA rex sole, BSAI flathead sole, and 'other species' in both the GOA and the BSAI. A separate discussion of this issue is contained in the NMFS implementation report.

GOA rex sole and BSAI flathead sole can be treated in one of two ways: (1) species endorsements can be issued for these species, as with the other species already identified for licenses, or (2) simply authorize directed fishing for these species under the area/species endorsement for the species group of origin. If species/area endorsements are not chosen as a component of the license program, then these species are no longer an issue.

More species could have their own TAC in the future. The Council may wish to consider how these potential "new" TAC species will be dealt with under the license program. One possible solution would be to issue a license for the "new" species to each fisher holding a license for the original species complex.

Options for Sunset Clause and Non-Transferability

Sunset clause

A sunset date on the license program would likely serve to 'hold the Council's feet to the fire' in developing IFQ programs for these fisheries. However, it may not be the case that IFQ programs prove to be the ultimate solution for every fishery. In these fisheries a sunset provision may not allow enough time between implementation and expiration for the "permanent" management program to be put in place.

An additional consideration, with regard to a sunset date, has to do with speculative investment in the fisheries and the value of licenses/endorsements. A sunset provision may serve to both limit the amount of speculation in North Pacific fisheries and to limit the monetary value of those licenses/endorsements.

Non-transferability

This provision would also eliminate, or at least alleviate, many of the questions regarding the transition to IFQs. For example, there would be less uncertainty about who owns catch histories for IFQ calculation than if vessels, licenses, and species/area endorsements are traded prior to IFQ allocations.

Implications for marine financing

A non-transferability provision would, in its strictest interpretation, create possible problems with regard to business, financial, and credit relationships (letter from Coalition for Stability in Marine Financing, dated January 10, 1995).

Consistency with Moratorium

Some questions have arisen as to whether the license program would entirely replace the moratorium, or be implemented on top of the moratorium. The assumption of the analyses for license limitation are that a license program, if implemented, would supersede and replace the moratorium. Therefore, depending on the eligibility period chosen, some moratorium qualified vessels would lose their eligibility; or conversely, some vessels not qualified under the moratorium would be included under the license limitation program.

COMPONENTS OF LICENSE LIMITATION ANALYTICAL PACKAGE

(as of March 9, 1995)

The following is a list of the various documents most relevant to the Council's License Limitation program for the groundfish and crab fisheries off Alaska, and a summary of the major contents of each:

1. Environmental Assessment/Regulatory Impact Review (EA/RIR) dated September 18, 1994.

pp. 1-4 Management background of CRP and License Limitation development since 1992.

pp. 14-36 Detailed description of current fleet characteristics, based on 1992/1993 activities.

pp. 40-58 Discussion of impacts of not implementing a License Limitation program - the 'No Action' alternative.

pp. 59-79 Review and discussion of other past and existing limited entry programs.

pp. 79-85 General economic impacts expected from License Limitation alternative.

pp. 86-154 Analysis of specific license limitation alternatives for **groundfish** fisheries. Includes analyses of each major component such as 'Nature of Licenses', 'Qualifying Period', 'Ownership and Transfer Provisions', etc. Also contains specific, detailed analyses of selected combinations of elements and options (configurations).

pp. 170-181 Analysis of specific license limitation alternatives for **crab** fisheries. Includes analyses of each major component such as 'Nature of Licenses', 'Qualifying Period', 'Ownership and Transfer Provisions', etc. Also contains specific, detailed analyses of selected combinations of elements and options (configurations).

pp. 182-184 Discussion of CDQ alternatives within the License Limitation program.

pp. 184-185 Discussion of two-tier skipper license proposal (from Skippers for Equitable Access - S.E.A.).

pp. 188-194 Environmental Impact projections (NEPA requirements) and Finding of No Significant Impacts.

pp. 195 General Economic Impacts (Executive Order 12866 findings).

pp. 196-200 Evaluation of proposed alternatives relative to Council Problem Statement.

pp.200-205 Consistency with National Standards and other applicable laws.

Appendix II Detailed data on 1991, 1992, and 1993 groundfish and crab fisheries for reference.

Appendix IV Methods of construction and assumptions made in data bases for the analyses.

Appendix V Analysis of Individual Transferable Pot Quota (ITPQ) option for crab fisheries.

Groundfish Distributional Table Appendix	Contains detailed distributional outcomes of various combinations of elements and options (configurations) for groundfish (through September 1994).
Crab Distributional Table Appendix	Contains detailed distributional outcomes of various combinations of elements and options (configurations) for crab (through September 1994).

2. **Appendix VII dated November 18, 1994:**

Contains analyses of specific license program configurations, for groundfish and crab, identified by the Council in September 1994.

3. **Appendix VIII dated November 18, 1994:**

Contains analyses of 'A' and 'B' license concept as proposed by Midwater Trawlers Cooperative.

4. **Errata sheet (dated November 14, 1994) noting corrections to baseline EA/RIR.**

5. **Supplemental Analysis of Proposed License Limitation Alternatives for Groundfish and Crab Fisheries off Alaska dated March 9, 1995:**

Contains analyses of specific license program configurations, for groundfish and crab, identified by the Council in December 1994. More specifically, contains the following:

pp. 1 Brief management background and full list of elements and options for groundfish and crab license limitation programs.

pp. 10-21 Detailed description of core configurations for groundfish. Included, for example, are the following major configurations:

Configuration # 1B15411:
* Single class of licenses (no 'B' permits)
* Licenses for fisheries and FMP sub-areas (newly delineated GOA areas)
* Issued to current owners
* Designation of CP/CV and vessel length categories

* Qualifying period of January 1, 1990 to December 31, 1993
* One landing minimum for license
* One landing minimum for endorsement

Configuration # 1B15811:
* Single class of licenses (no 'B' permits)
* Licenses for fisheries and FMP sub-areas (newly delineated GOA areas)
* Issued to current owners
* Designation of CP/CV and vessel length categories
* Qualifying period of January 1, 1988 to June 27, 1992
* One landing minimum for license
* One landing minimum for endorsement

pp. 21-28 Detailed description of core configurations for crab. Included, for example, are the following major configurations:

Configuration # 131431:
* Single class of licenses (no 'B' permits)
* Species/area licenses
* Issued to current owners
* Designations of CP/CV and vessel length categories
* Base qualifying period of June 28, 1989 to June 27, 1992
* No minimum landings requirements

Configuration # 131441:
* Single class of licenses (no 'B' permits)
* Species/area licenses
* Issued to current owners
* Designations of CP/CV and vessel length categories
* Base qualifying period of January 1, 1992 to December 31, 1994
* No minimum landings requirements

pp. 28-33 Discussion of potential License and Endorsement structures - Umbrella concept.

pp. 34-38 Discussion of specific issues still requiring clarification or resolution.

pp. 39 Distributional tables for all potential groundfish configurations (based on highlighted alternatives from December 1994).

pp. 55 Distributional tables for all potential crab configurations (based on highlighted alternatives from December 1994).

6. **Implementation Plan for License Limitation Alternatives dated January 20, 1995:**

This document contains projections of the overall costs for administration, implementation, and enforcement of the proposed license limitation program. Also contains discussion of the differential costs and implementation aspects of various major alternatives within the overall license program.

7. **1994 Community Profiles:**

These documents, covering nine different regions and over 130 communities in Alaska and the Pacific Northwest, were released in the fall of 1994. They are generic, baseline reference documents for the license limitation and other Council management programs and contain general information on these coastal communities and specific information relative to their involvement in fisheries off Alaska.

8. **Sector Description and Preliminary Social Impact Assessment dated October 21, 1994:**

This document was prepared under contract to the Council by Impact Assessment, Inc and is a generic, baseline reference document focusing on major industry sectors, their involvement in the fisheries, and the participants in each major sector. This document was prepared as background reference for the overall CRP initiative.

9. **Final Social Impact Assessment (Bridging Document) for License Limitation alternatives for groundfish and crab fisheries, to be released in mid-March 1995:**

This document is also being prepared by Impact Assessment, Inc. and is intended to relate the Council staff's distributional analyses (of specific license limitation alternatives) to the baseline social impact documents listed above.

PAGE GUIDE TO LICENSE LIMITATION DOCUMENTS

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(Dated September 18, 1994)

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Supplemental Analysis of Alternatives from December 1994	(Dated March 9, 1995)
Implementation Plan for License Alternatives	(Dated January 20, 1995)
Community Profiles for Alaska and Pacific Northwest	(Released in Fall 1994)
Sector Description and Preliminary Social Impact Assessment	(Dated October 21, 1994)
Final Social Impact Assessment	(To be released in mid-March 1995)

AGENDA C-3(d)
APRIL 1995

COMMENTS

License Limitation

and

Comprehensive Rationalization Issues

KODIAK & WESTERN TRAWLER GROUP

David P. Harville
P.O. Box 1578
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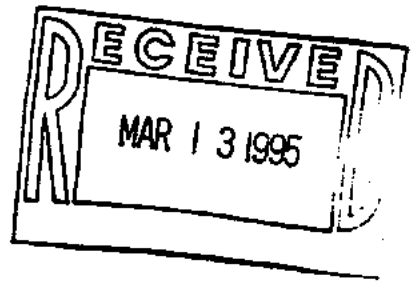

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March 7, 1995

To: The Chairman, North Pacific Fisheries Management Council

North Pacific Fisheries Management Council
P.O. Box 103136
Anchorage, Ak. 99510

Dear Sir,

The vessel Little Bear in which I was managing partner sank in the Gulf of Alaska on March 27, 1989 while fishing groundfish for Eagle Fisheries in Kodiak.

I have been involved in the Little Bear for the previous 10 years both in fishing the Bering Sea joint ventures and Gulf of Alaska shore-based development.

The North Pacific Council passed a moratorium on bringing new vessels into the groundfish industry but allowed replacement for the approximately 9 vessels which sank during the moratorium. The Little Bear was included in this number.

Because of the uncertainty generated by the strong movement for a comprehensive rationalization plan, I have been unwilling to invest until I know what my rights will be under limited access.

Both my partner and I have kept money in the Capital Construction Fund for replacing the Little Bear. These monies must be used for this purpose or substantial penalties will result from unauthorized withdrawals.

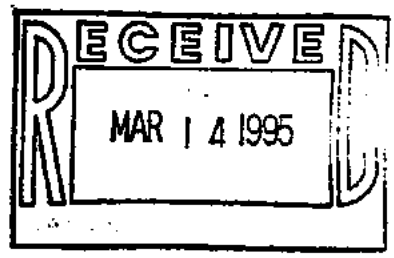
Since I have the right the replace the vessel under the moratorium I would request that if limited entry be the solution that I receive a limited entry permit or I would suggest that under an IFQ program that an average be taken of the vessels in the Little Bear's horsepower and size group and quotas be issued for that average. (The Little Bear was, by the way, always a high producer as all my vessels have been.)

I also strongly urge the Council to consider quotas rather than limited entry as a solution. Regardless of what solution the Council comes up with, I hope it will be soon for the sake of the industry.

Sincerely,

David P. Harville

Linda Jeanne Harville
480 Palmer Blvd.
Fortuna, CA 95540



March 7, 1995

To: The Chairman, North Pacific Fisheries Management Council

North Pacific Fisheries Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Chairman Lauber,

On March 27, 1989 the F/V "Little Bear" sank in the Gulf of Alaska. I was a one-third owner of the vessel at that time.

On the combined advice of my accountant, partner, and other business advisors, and because our intention was to replace the "Little Bear", I put the insurance proceeds in a Capital Construction Fund (CCF).

Because there was a movement in the NPFMC to establish a moratorium on new vessels entering the fleet, and because there had been a great deal of talk of creating a limited access program in the trawling industry, I have not to this date felt it would be a prudent business decision to reinvest in the Alaska Fisheries.

The NPFMC did in fact state that replacement of vessels including the "Little Bear" that sank after a certain date would be allowed under the moratorium. However, to this date it has not been established with any certainty to what extent these replacement vessels would be allowed fishing rights under a "comprehensive rationalization" management plan.

The "Little Bear was one of the pioneers in both joint venture fisheries and shore-based deliveries from 1979 until she sank in 1989. I am very proud to have been an investor involved in the "Americanization" of the groundfish fisheries in both the Bering Sea and the Gulf of Alaska.

My business partner and I have both set aside funds in a CCF in order to continue the only business I have known for the past 25 years and to continue the proud pioneering tradition of vessels such as the "Little Bear".

As you may know, to withdraw monies from our CCF's for other than the intended authorized uses would result in major penalties.

I have been informed by my partner that the Council staff has already done the work to determine how many vessels are affected in the same manner we are. It is a very small number.

I would appreciate it very much if the Council would act to guarantee the fishing rights I feel I have earned through my past pioneering participation in the Alaska groundfish fisheries.

It is important that I have the vital information I need to make an informed business decision in the immediate future.

Sincerely yours,

Linda Jeanne Harville
Partner: F/V "Little Bear"

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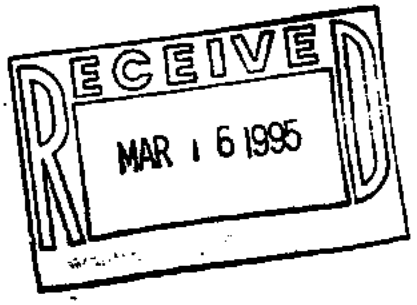

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March 13, 1995

This figure is just an example

To: The Chairman, North Pacific Fisheries Management Council

North Pacific Fisheries Management Council
P.O. Box 103136
Anchorage, Ak. 99510

Dear Sir,

As a followup of my letter regarding replacement rights for the F/V Little Bear, I hereby enclose a letter from Linda Harville's CPA.

I know for a fact that Linda Harville has considerably more than $85,000.00 in her CCF.

Also, the letter may be confusing because of his referral to the Linda Jeanne. Mrs. Harville was also a partner in the Linda Jeanne which sank in 1985 and a partner in the Little Bear which sank in 1989.

The pertinent part is the fact that if an unqualified withdrawal in her case were made, that for every $85,000.00 that she had in the CCF she would have to pay $60,540.00 to the IRS.

I must state that these figures are approximate and if it were necessary for your deliberations we could supply much more accurate information.

I also have CCF funds dedicated to the replacement of the Little Bear.

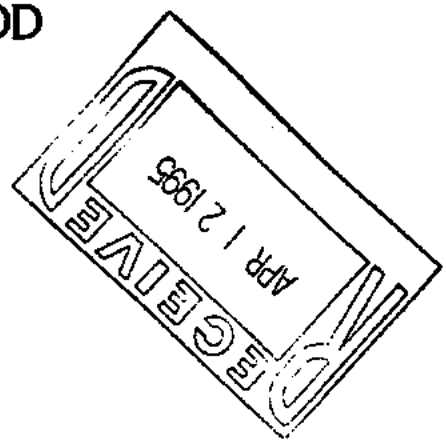
Sincerely yours,

David P. Harville

Enclosure

ALASKA OCEAN SEAFOOD

LIMITED PARTNERSHIP



April 6, 1995

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

Re: Agenda Item C-4 - License Limitation

Dear Mr. Lauber:

I am writing on behalf of Alaska Ocean Seafood Limited Partnership. Through my companies, I have an ownership interest in Alaska Ocean Seafood; I am also General Manager of that company, and principal captain of the surimi factory trawler ALASKA OCEAN. I have been involved in the Alaska crab and groundfish fisheries for some 25 years, and have owned and operated vessels engaged in the pollock fisheries since 1982.

I have testified before this Council on previous occasions with respect to the license limitation program, urging the Council to do no more than adopt a program which mirrors, fine-tunes, and formalizes the moratorium. My partners and I continue to believe that time and effort spent in implementing a license limitation program can be justified only if the end result is a simple program that is no more than an interim step between the moratorium and full comprehensive rationalization through an ITQ program.

We therefore envision, and urge the Council to adopt, a license limitation program that has the following - and only the following - features:

1. A single class of license for groundfish and a single class of license for crab.

2. Licenses issued to current owners of vessels that would qualify under the moratorium (as revised September and December 1994) and that made landings during any of the three years prior to the control date of June 24, 1992.

3. Licenses delineated by vessel size categories, with "upgrading" limitations paralleling those in the moratorium.

4. Licenses may not be transferred without the vessel.

2415 T Avenue • P.O. Box 190 • Anacortes, WA 98221
Phone: (206) 293-6759 • Fax: (206) 293-6232 • Telex: 883481

My partners and I believe that any effort by the Council to develop a license limitation program more extensive than that described above would be an unwarranted expenditure made at the expense of true comprehensive rationalization. In addition, we believe that implementation of many of the preferred alternatives identified by the Council could actually run counter to the purposes of the moratorium and add further complication to the issues which must be resolved with respect to ITQ's.

1. The merits of our proposal.

The most obvious benefit of our proposal is its simplicity. By reason of that feature, our proposal can be implemented readily and cost-effectively.

(a) Single class of license.

This proposal has several advantages. First, it caps the fleet at the number of vessels to which licenses are initially issued. The September 18, 1994 EA/RIR identifies as the only advantage of a license limitation program its ability to "define the field of players." EA/RIR at E-12, E-20, 7, 168, 196. This result is obviously obtained by a single class of license. See March 9, 1995 Supplemental Analysis at 29.

In contrast, the Council has highlighted, under Nature of Licenses, several Options involving separable licenses and/or endorsements. Selection of those Options could actually result in an increase in the number of vessels in the fleet. Id. at 33. Such an outcome is contrary to the goals of the moratorium and eradicates the sole perceived advantage of the license limitation program.

The simplicity of our proposal also makes it more cost-effective than other Options highlighted by the Council. For example, NMFS estimates that implementation of a system with general licenses with area endorsements (which is more complicated than our proposal) would require 10 government positions and cost $475,000. In contrast, a system with area and species endorsements would require 14 government positions and 20 contract positions, and would cost $1,495,000. NMFS Implementation Plan (Jan. 30, 1995) - Executive Summary. In other words, the simpler the program is, the less costly it will be.

Executive Order 12866 imposes an obligation of careful identification of the problem to be addressed and selection of the most cost-effective solution. The only "problem" that license limitation will address is defining the field of players. Under E.O. 12866, this must be done in the most cost-effective way, i.e., by adoption of a single class of licenses.

(b) Licenses issued to current owners of moratorium-qualified vessels that made landings during any of the three years prior to June 24, 1992.

Again, there are several advantages to this aspect of our proposal. First, issuance of licenses to current owners is fair and makes eligible recipients readily identifiable.

Secondly, the proposal tracks the moratorium qualification dates and hence is consistent with the moratorium's goals and the Council's pronouncements concerning the moratorium. On the other hand, other Options highlighted by the Council, specifically Options 400 and 500, would let in vessels specifically intended to be excluded by the moratorium. Indeed, the number of vessels that would be allowed in under Option 500 cannot even be calculated. This scarcely comports with a goal of defining the field of players.

(c) Vessel length designations.

We believe that such designations are necessary as a partial step toward limiting further capitalization by curtailing capital-stuffing. In addition, such designations are of course consistent with the moratorium.

The council has highlighted other Options with respect to License Designations that have no apparent relationship to the goals of the moratorium or the license limitation program. Among these is an inshore-offshore designation. See NMFS Implementation Plan at 4 (purpose of inshore/offshore designations remains unclear). We believe that the time and effort required to analyze these additional designations is unwarranted.

(d) Non-transferability.

The proposed moratorium restricts transfer of moratorium qualification in two ways. First, the selling vessel would either have to leave the moratorium fisheries or purchase the qualification of another vessel. Second, there would be a 20% size increase limitation on the purchasing vessel.

We propose that the license limitation program track the moratorium in limiting transferability but that the restrictions be more simple - a license should be linked to a vessel and should not be transferable unless the vessel is transferred with it.

As to limiting transfers generally, we believe that such limitations are an important component of a program that is intended to be only interim. As to the specific

limitation we are proposing, we believe that this is necessary to avoid creation of an entirely new constituency of license holders who will claim entitlement to ITQ's[1]. This will be especially true if the Council were to allow in vessels intended to be excluded by the moratorium, or if the Council were to adopt a severable license or endorsement system.

2. The Council should not be involved in citizenship issues.

The Council has before it two Options concerning the citizenship standards for those who wish to purchase licenses[2]. The first would allow purchases by any person eligible to document a fishery vessel under Chapter 121 of Title 46, United States Code. The second would require that corporations and limited partnerships be 76% or more U.S. -citizen owned.

We are frankly astonished that the Council continues to consider the second option; the Council has been advised on at least two occasions that it lacks authority to implement this option. This was set forth in an oral opinion issued by NOAA Regional Counsel at the September 1994 Council meeting. It was reiterated by a summary opinion form NOAA General Counsel which was distributed at the December 1994 meeting and which stated in relevant part:

> NOAA General Counsel has further analyzed the issue as it relates to the corporate ownership of fishing vessels and has concluded that foreign ownership limitations more stringent than those applicable under the Anti-Reflagging Act on either the initial issuance of QS or its subsequent transfer would be violative of the Magnuson Act. Congress has spoken on what the requirements are for corporate ownership of fishing vessels operating within the EEZ in the Anti-Reflagging Act and these provisions have been specifically incorporated into the Magnuson Act through its definition of "vessel of the United States." Any attempt by the NPFMC (or the Secretary) to impose contradictory foreign ownership requirements by regulation (i.e., without further Congressional authorization) would be ultra vires.

NOAA General Counsel's analysis with respect to QS's is equally applicable to licenses. Congress has already established the citizenship requirements for engaging in the fisheries, and, through the Magnuson Act, has imposed upon the Council an obligation to abide by those standards.

---

[1]Options 2000000 and 3000000 raise similar problems and should not be adopted.

[2]Under our proposal, such purchases would include the purchase of the vessel as well.

Accordingly, continued efforts by the Council to consider and analyze the second option are both illegal and a patent waste of time.

3. Our proposal permits the Council to move expeditiously to implementation of ITQ's.

My partners and I have reviewed with interest the September 18, 1994 EA/RIR and the supplements thereto. Conspicuously absent from those documents is any rationale for pursuing a license limitation program rather than proceeding directly to an ITQ program. If the Council, notwithstanding the lack of any justification for doing so, determines to pursue a license limitation program, it must adopt a program that is simple, cost-effective, and clearly temporary.

We believe that our proposal does precisely that, by establishing licenses with four simple features and by leaving citizenship issues where they belong - with Congress and the Department of Transportation. As a consequence, analysis and adoption of our proposal should be achievable in a relatively short time frame, allowing the Council to get on with true comprehensive rationalization.

There is no doubt that a license limitation program is a far cry from true rationalization of the fisheries. The EA/RIR makes this abundantly clear:

- "None of the conditions necessary for a license limitation program to generate economic benefits appears to exist in the fisheries for which license limitation is being considered." EA/RIR at E-7.

- "In the end, the result is the same under either open access or license limitation...." Id. at 84.

Of particular significance is the potential effect - or lack thereof - of a license limitation program on the 14 Problems identified by the Council as arising from the open-access system. The EA/RIR, at pages E-16 - E-18 and 197-199, discusses this potential effect and concludes that, of the 14 problems, 12 will not be addressed depending upon the options chosen. Problem 1, overcapacity , may or may not be addressed at all. (This is an especially telling observation, given the fact that many of the Council's preferred Options would lead to increases in the size of the fleet.) Problem 10, concerning coastal communities, may be addressed, but with mixed results: some coastal communities will benefit and others will be negatively affected.

The EA/RIR summarizes the potential effect of a license limitation program on the 14 Problems as follows:

> Most license limitation programs have failed, however, even those that constrained entry, because they did not eliminate the principal cause of over-capitalization: common property which leads to a race for the resource. This last statement is the centerpiece of the Council's problem statement.... Id. at 84 (emphasis added).

It is abundantly clear from theses analyses that a license limitation program cannot be a stopping point because it fails to address the extant problems in the fisheries. The Council must move on, and move on quickly to programs that do address those problems. The best way to achieve that progress is to adopt a simple license limitation program. The council can then proceed to adoption of a solution - ITQ's - which does address these problems, EA/RIR at 6.

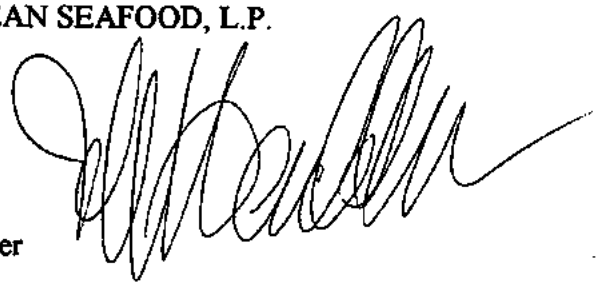
Conclusion

The Council has spent a number of years struggling with comprehensive rationalization. Despite these efforts, the 14 Problems remain unabated and a license limitation program, regardless of the form it takes, will do nothing to change that fact. If the Council nonetheless persists in adopting a license limitation program, my partners and I urge to Council to proceed expeditiously in adopting the simple program we have proposed and to immediate consideration of ITQ's.

Thank you for your consideration of our views.

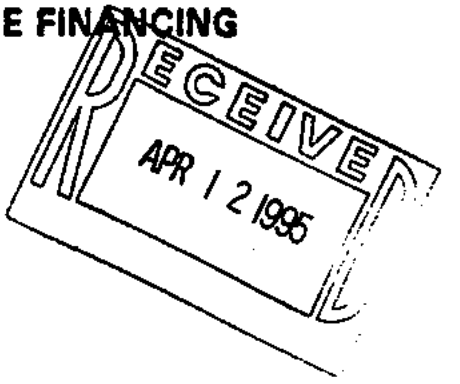
Sincerely,

ALASKA OCEAN SEAFOOD, L.P.



Jeff Hendricks
General Manager

THE COALITION FOR STABILITY IN MARINE FINANCING



April 12, 1995

Mr. Richard B. Lauber
Chairman
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, AK 99501

RE: Comprehensive Rationalization Plan (CRP) -- Proposals to Limit the Transfer of Crab and Groundfish Licenses

Dear Mr. Lauber:

Earlier this year we wrote to you expressing our concerns with the proposals to limit the transferability of licenses in the crab and groundfish fisheries from the perspective of the lending community. See Letter from the Coalition dated January 10, 1995. We appreciate the fact that the Council staff expressly addressed the implications of non-transferability for marine financing in its Supplemental Analysis, dated March 9, 1995 at page 37. At this time we would like to underscore those concerns in anticipation of the Council's action on these issues next week.

The fundamental problem with a blanket prohibition on license transfers is the inability of a lender or other secured creditor who has extended credit to a borrower based on the value of the vessel -- together with its ability to fish i.e., its license -- to realize on the collateral should the borrower default on his loan. If collateral is to be worth anything to the lender it must be able to be sold or transferred for value. Any restriction on that ability makes it worth less.

The prohibition on the transferability of crab and groundfish licenses, as it has been proposed, is without any limitation. Strictly read, such a prohibition would affect vessel sales as well as other "involuntary" transfers such as those that occur when the owner dies, is divorced, modifies or terminates a business arrangement or defaults on a loan for which the license is pledged as part of the security package. An inability to accomplish such a transfer would have a seriously chilling affect on all aspects of commerce affecting these vessels.

The purpose of the proposed limitation, as we understand it, is to encourage a prompt transition from a license system to a quota share plan. As noted in our earlier letter, our concerns can be addressed without interfering with that goal. The simplest approach would be to allow licenses to be transferable, but only when transferred together with the underlying vessel. This would address the

principal lender concern of separating the vessel from its right to fish. It would not, however, address concerns with the use of the license itself as the collateral for a loan, separate from the vessel. This could be addressed with a specific exemption allowing license transfers where the license was legally acquired through a security agreement, vessel foreclosure or other operation of law. This would accomplish what we understand to be the underlying purpose of the proposal, i.e., to discourage speculation in licenses pending adoption of a quota share plan. This option was noted in our earlier letter and is similar to that provided in the halibut/sablefish IFQ plan.

We are also concerned about one of the miscellaneous options that would permit licenses to be suspended or revoked for multiple violations. The existence of a license is a critical component of the loan collateral, yet its value could be unilaterally destroyed by the borrower if multiple violations resulted in the permanent revocation of the license. Accordingly, we have no objection to the suspension of a license, as long as it can be reinstated if sold pursuant to a security agreement or by operation of law. We do, however, object to any permanent revocation of a license that does not recognize the lender's security interest.

Representatives of the Coalition will be attending the Council meeting to address these issues and others that may concern those who rely on the creditworthiness of vessel and related assets in providing financing for the fishing industry. We will be happy to meet with any Council members or Council staff to address these concerns or the mechanisms that might be used to solve the transferability problem without interfering with other management objectives that the Council may chose. We appreciate your consideration of these comments.

Sincerely,

William N. Myhre
PRESTON GATES ELLIS
& ROUVELAS MEEDS
1735 New York Ave., N.W.
Washington, D.C. 20006
(202) 628-1700

Joan Travostino
PRESTON GATES & ELLIS
420 L Street, Suite 400
Anchorage, AK 99501-1937
(907) 276-1969

Counsel for
THE COALITION FOR
STABILITY IN MARINE FINANCING

THE COALITION FOR STABILITY IN MARINE FINANCING

January 10, 1995

Mr. Richard B. Lauber
Chairman
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, AK 99501

RE: Comprehensive Rationalization Plan (CRP) -- Proposals to Limit the Transfer of Crab and Groundfish Licenses

Dear Mr. Lauber:

As you know, the Coalition for Stability in Marine Financing (the "Coalition") has followed the Council's activities in connection with the CRP process and related issues that could adversely affect lenders and other creditors involved with vessel assets in the North Pacific fishing industry. The proposals raised at the Council's December meeting and reported in the December 20th newsletter (at pages 5 and 10) which would prohibit the transfer of crab and groundfish licenses are of particular concern to members of the Coalition. If implemented as proposed, these prohibitions would frustrate marine lending on assets involved in these fisheries as well as creating an unworkable limitation on routine vessel transfers. We urge that as you analyze these options you consider amending the proposals to permit license transfers under certain limited circumstances.

We understand that the purpose behind both the proposed sunset provision limiting the license limitation program to a specific time period, and the proposed prohibition on license transfers is to encourage the prompt transition from a license plan to a quota share plan. While we have no particular objection to this goal, unless modified as suggested below, the limitation on transfers will have unforeseen and adverse consequences to the entire industry.

As described in the Council's newsletter, the proposed prohibition on license transfers would be broad and absolute. Apparently a vessel could not be sold, together with its license, since that sale would involve a prohibited license transfer. As drafted, this would include all manner of potential transfers ranging from a distribution of assets in the event of the owner's death or the dissolution of the owner's marriage, to the termination of a partnership or other business arrangement. Such a limitation would have a seriously chilling effect on all aspects of commerce involving these vessels.

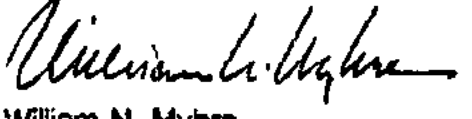
Of particular concern to a secured lender is the inability to obtain the vessel's license in the event of foreclosure. Under the current proposal a potential purchaser at a marshall's sale would be unable to acquire the vessel's fishing license along with the vessel itself. Such a limitation would utterly frustrate the lender's statutory right to foreclose the mortgage and would clearly diminish the pool of potential purchasers, not to mention the price they might be expected to pay. A fishing vessel that had no fishing license or other legal authority to fish would be of little value to a fisherman. As a result the value of the vessel as loan collateral would be sharply diminished if not eliminated both to traditional lenders as well as to other marine creditors who rely on the vessel's creditworthiness before doing business with the vessel's owner.

The Coalition believes that the proponents' objectives can be achieved with a more tailored limitation that would not create the problems identified above. Specifically, permitting the transfer of any license in connection with the sale or transfer of the underlying vessel, would address the concerns identified above. In so doing the objective of discouraging speculation in vessel licenses could be achieved. Another option would be to provide a specific exemption allowing license transfers where the license was legally acquired through a security agreement, vessel foreclosure or other operation of law. The Council created a similar exemption from the prohibition on the transfer of halibut and sablefish IFQs. See 58 Fed. Reg. 59375 at 59407-8 (Nov. 9, 1993). These kinds of clarifications would address the concerns of lenders, creditors and vessel owners, without encouraging the speculation in vessel licenses with which the proponents of this proposal are concerned.

We urge the Council to consider carefully the issues raised above in its evaluation of the license limitation proposals under review. Should you have questions concerning this letter or the position of the Coalition please do not hesitate to contact us. We would be happy to provide additional information or to have one of the Coalition members contact you directly.

Thank you for your consideration of these comments.

Sincerely,



William N. Myhre
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Counsel for
THE COALITION FOR
STABILITY IN MARINE FINANCING

Dennis Hicks

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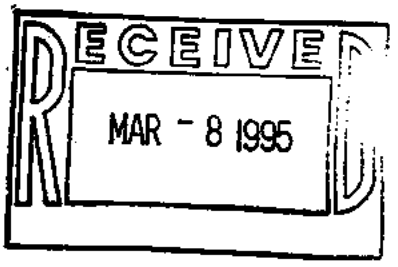


March 3, 1995

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

Dear Mr. Lauber:

I'd like to address a couple of points coming up under comprehensive rationalization.

First, I urge the council to include a ban on trawling east of 140°. I won't reiterate all the arguments for the ban, but I will say that I have never met or heard of a person in Southeast who doesn't support the ban. This is vitally important to us in Southeast.

Secondly, I feel that a wide window of time should be used in determining initial recipients under comprehensive rationalization, possibly going back five years or so. Further, I don't feel that a threshold level (minimum poundage) should be used. If someone got their show together and went fishing, they should be considered for initial allocation. Being more conservative on these points would only punish smaller boat owners (without helping anyone else) when they didn't bring about the overcapitalization problem.

Yours truly,

Dennis Hicks

*726 Siginaka Way * Sitka, Alaska 99835 * (907) 747-3465*

cc: CA

United Fishermen's Marketing Association, Inc.

P.O. Box 1035 Kodiak, Alaska 99615

Telephone 486-3453

April 4, 1995

Mr. Richard Lauber
Chairman
North Pacific Fishery Management Council
PO Box 103136
Anchorage, AK 99510

Dear Rick,

Attached please find a copy of a suggestion that we made to the Council on December 9, 1993. Please notice that this suggestion applies to License Limitation alternatives for the crab fisheries in the Bering Sea/Aleutian Islands. We would like to resubmit this option for Council consideration relative to License Limitation discussions for the Bering Sea/Aleutian Island crab fisheries.

If you have any questions, please call me.

Sincerely,

Jeff Stephan

Jeffrey R. Stephan

United Fishermen's Marketing Association, Inc.

P.O. Box 1035 Kodiak, Alaska 99615

Telephone 486-3453

December 9, 1993

Mr. Richard Lauber
Chairman
North Pacific Fishery Management Council

RE: VESSEL LICENSING FOR THE CRAB FISHERIES IN THE BERING SEA/ALEUTIAN ISLANDS.

Dear Mr. Lauber,

As you know, UFMA submitted a proposal to the Council in June, 1993, regarding a vessel license limitation program for the crab fisheries of the Bering Sea/Aleutian Islands. As part of that vessel license program, we suggested the issuance of only one vessel license that would permit the harvest of all king crab and all tanner crab in all Regulatory Areas. After much discussion with crab fishermen regarding this issue, we determined that the single vessel license approach was preferable to a multiple vessel license program; such multiple vessel license program that would issue several vessel licenses, each license that would apply to a separate and distinct crab species and Regulatory Area. We believe that a single vessel license approach attains significant objectives with regard to the reduction of fleet size and harvesting effort in a relatively easy, uncomplicated and straightforward manner, especially when compared to the complexities of a multiple vessel license approach.

While we still believe that the single vessel license approach is the most preferable, we would like to offer some alternatives to the Council if it appears that the Council is inclined to seriously investigate the option of a multiple vessel license program. As you remember, during the Council meeting of September, 1993, the Council asked Council staff to develop some of the considerations that apply to a multiple vessel license approach. The Council approached the multiple vessel license issue through the application of "endorsements" that would apply to a crab vessel license. If the Council determines that the need exists to further investigate the "endorsements"/multiple vessel license approach, we suggest the following options for the issuance of "groupings" of crab species and Regulatory Areas relative to a vessel license:

A. KING CRAB MULTIPLE VESSEL LICENSE OPTIONS (in order of preference)

(O. Dutch Harbor; R. Adak; T. Bristol Bay; Q. Bering Sea).

1. One license:
   a. one license that includes four Areas (O, R, T, Q).

2. Two licenses:
   a. one license that includes three Areas (O, T, Q);
   b. one license that includes one Area (R).

3. Three licenses:
   a. one license that includes two Areas (O, T);
   b. one license that includes one Area (Q);
   c. one license that includes one Area (R).

4. Four licenses:
   a. one license that includes two Areas (O, T);
   b. one license that includes one District and two Sections (Q1, Q2, Q4);
   c. one license that includes one Section (Q3);
   d. one license that includes one Area (R).

B. TANNER CRAB MULTIPLE VESSEL LICENSE OPTIONS (in order of preference)

(J4, Eastern Aleutians District; J5, Western Aleutians District; J6, Western Subdistrict of the Bering Sea District; J7, Eastern Subdistrict of the Bering Sea District; J8, Norton Sound Section of the Eastern Subdistrict of the Bering Sea District)

1. One license:
   a. one license that includes two Districts, two Subdistricts and one Section (J4, J5, J6, J7, J8);

2. Three Licenses:
   a. one license that includes two Districts (J4, J5);
   b. one license that includes one Section (J8);
   c. one license that includes two Subdistricts (J6, J7).

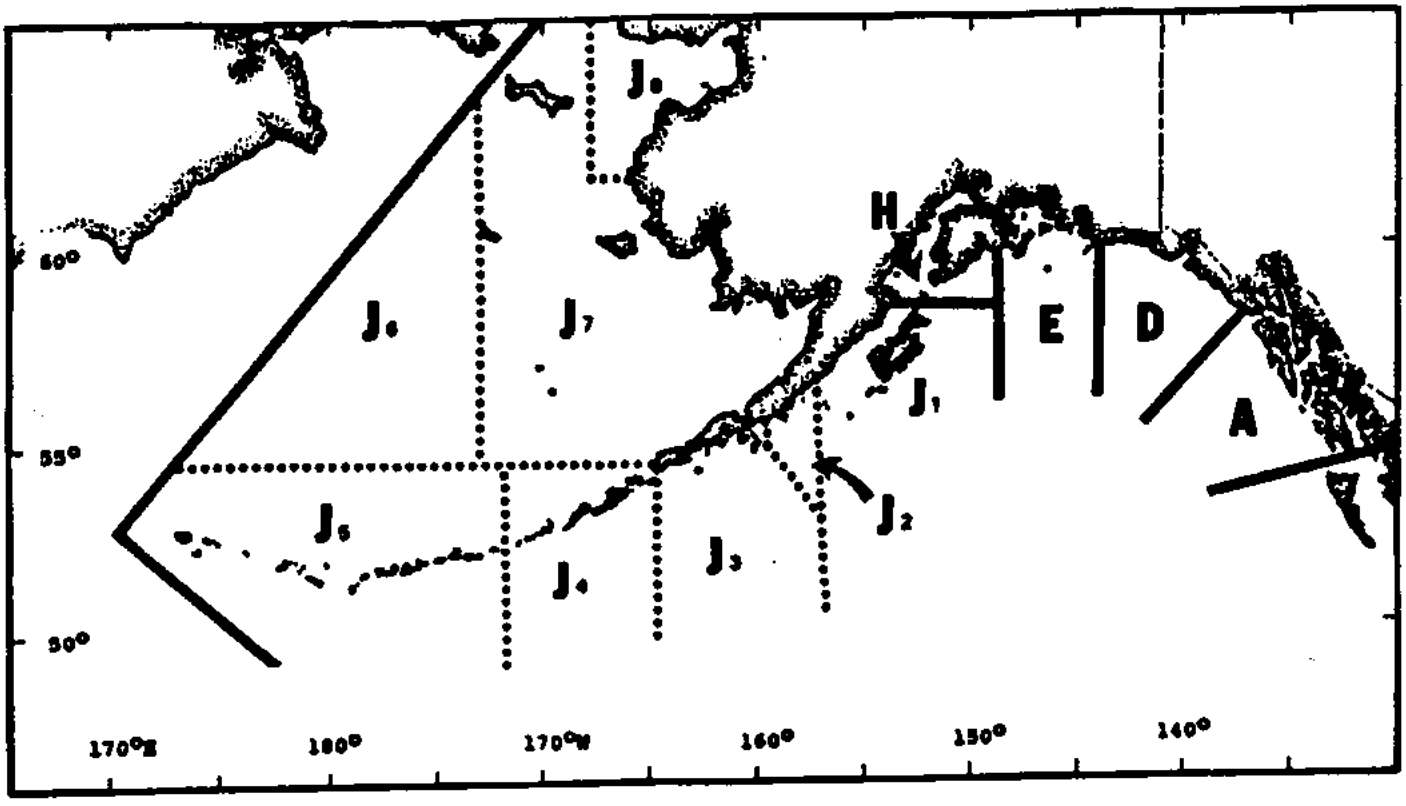
We have attached two descriptive maps that will hopefully assist the Council in visualizing the "groupings" option that we propose for consideration if the Council determines to proceed further with the "endorsements"/multiple vessel license approach. We wish to reiterate that UFMA originally suggested, and still prefers, the issuance of only one vessel license that would permit the harvest of all king crab and all tanner crab in all regulatory Areas. We believe that these "groupings" would not only permit the conduct of a crab harvesting operation in a reasonable manner, but would also allow for necessary diversification and flexibility in addressing stock fluctuations that occur over time in crab populations, crab species and Regulatory Areas.

Thankyou for your consideration of our ideas regarding this matter.

Sincerely,

Jeffrey R. Stephan

TANNER CRAB AREAS



TANNER CRAB SEASON REGULATIONS SUMMARY

J8: BERING SEA DISTRICT EASTERN SUBDISTRICT NORTON SOUND SECTION

Reg: No open season

J7: BERING SEA DISTRICT EASTERN SUBDISTRICT

Reg: Nonexclusive
Pot Limit:
250, for Vessels over 125 feet
200 for Vessels 125 or less
Dates: *C. bairdi* -
East of 168° W. long., Concurrent With Area T.
Red King Crab Season and reopen again 10 days after Area T king crab season between 163° and 173° W. long.
If no Area T king crab season, open between 163° and 173° W. long. on November 1.
C. opilio - January 15
Size: *C. bairdi* - 5.5 inches
C. opilio - 3.1 inches

J6: BERING SEA DISTRICT WESTERN SUBDISTRICT

Reg: Nonexclusive
Pot Limit:
250, for Vessels over 125 feet
200 for Vessels 125 or less
Dates: *C. bairdi* - January 15
C. opilio - January 15
Size: *C. bairdi* - 5.5 inches
C. olilio - 3.1 inches

J5: WESTERN ALEUTIANS

Reg: Nonexclusive
Pot Limit: None
Dates: November 1
Size: *C. bairdi* - 5.5 inches

J4: EASTERN ALEUTIANS

Reg: Nonexclusive
Pot Limit: None
Dates: January 15
Size: *C. bairdi* - 5.5 inches

J3: SOUTH PENINSULA

Reg: Nonexclusive
Pot Limit:
40 or 75 Depending on GHL
Dates: January 15
Size: *C. bairdi* - 5.5 inches

J2: CHIGNIK

Reg: Nonexclusive
Limit:
40 or 75 Depending on GHL
Date: January 15
Size: *C. bairdi* - 5.5 inches

J1: KODIAK

Reg: Nonexclusive
Pot Limit: 75
Dates: January 15
Size: *C. bairdi* - 5.5 inches

H: COOK INLET

Reg: Superexclusive
Pot Limit: 40 or 75 depending on GHL in Southern District
Dates: January 15
Size: 5.5 inches

E: PRINCE WILLIAM SOUND

Reg: Superexclusive
Pot Limit: 100 or 175 Depending on Area
Dates: January 15
Size: 5.3 inches

D: YAKUTAT

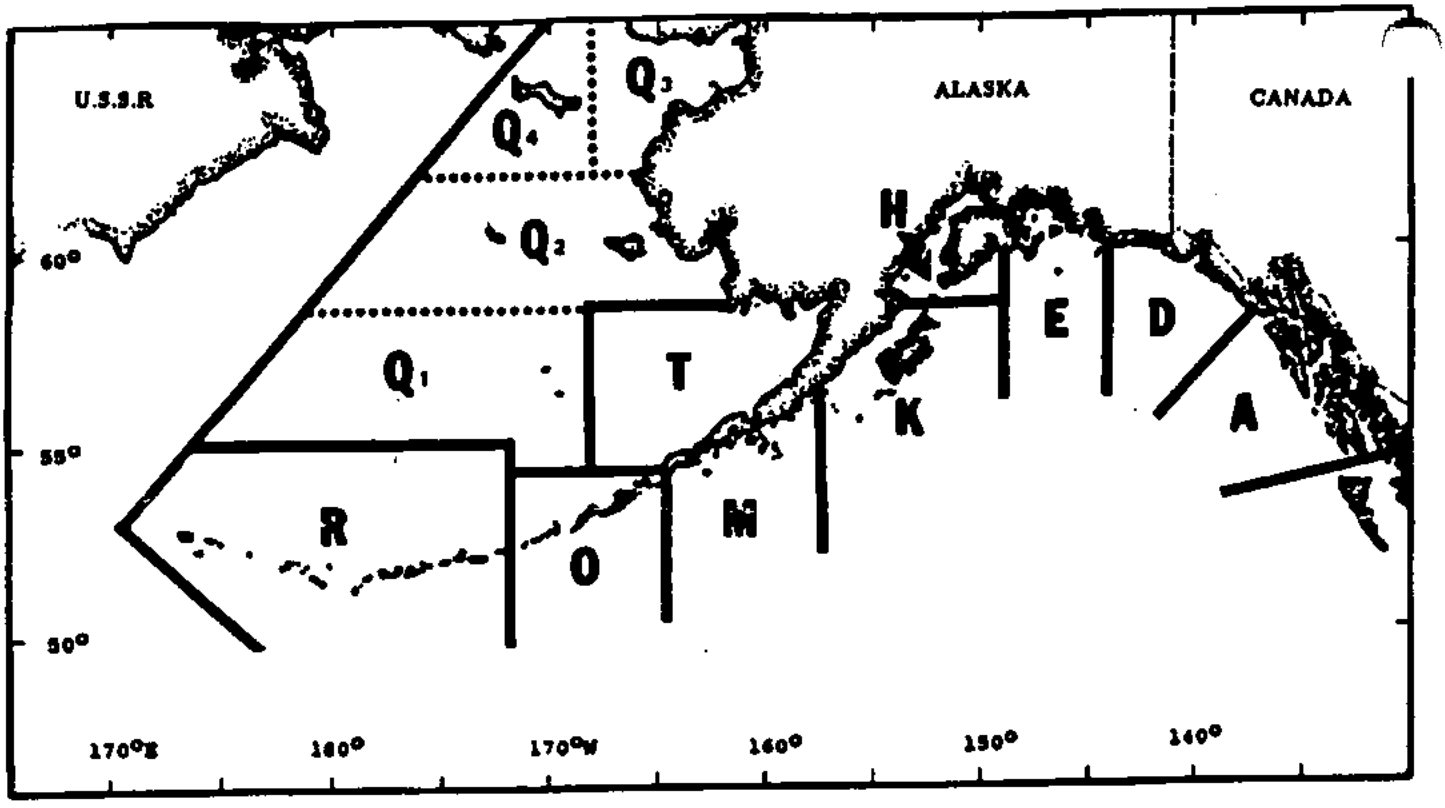
Reg: Nonexclusive
Pot Limit: 100 in Yakutat Bay
Dates: January 15
Size: 5.5 inches

A: SOUTHEASTERN

Reg: Superexclusive
Pot Limit: 100 Pot Limit in Inside Waters
Dates: February 15
Size: 5.5 inches

KEY:
Registration ..... Reg:
Guideline Harvest Level . GHL
Opening Dates ..... Dates:
Minimum Legal Size ..... Size:

KING CRAB AREAS



KING CRAB REGULATIONS SUMMARY KEY

Q3: BERING SEA AREA NORTHERN DISTRICT NORTON SOUND SECTION

Reg: Superexclusive
Pot Limit:
50 - Vessels over 125 feet
40 - Vessels 125 feet or less
Dates: Red & Blue - July 1 & November 15
Brown - By Permit
Size: Red - 4.75
Blue - 5.5 inches

Q4: BERING SEA AREA NORTHERN DISTRICT ST. LAWRENCE SECTION

Reg: Nonexclusive
Pot Limit:
50 - Vessels over 125 feet
40 - Vessels 125 feet or less
Dates:
Red & Blue July 1 & November 15
Size: Brown - By Permit
Red - 4.75 inches
Blue - 5.5 inches

Q2: BERING SEA AREA NORTHERN DISTRICT ST. MATTHEW SECTION

Reg: Nonexclusive
Pot Limit:
75 - Vessels over 125 feet
60 - Vessels 125 feet or less
Dates:
Red & Blue - September 15
Brown - By Permit
Size: Red - 4.75 inches
Blue & Brown - 5.5 inches

Q1: BERING SEA AREA PRIBILOF DISTRICT

Reg: Nonexclusive
Pot Limit:
50 - Vessels over 125 feet
40 - Vessels 125 feet or less
Dates:
Red & Blue - September 15
Brown - By Permit
Size: Red & Blue - 6.5 inches
Brown - 5.5 inches

KEY:
Registration ..... Reg:
Guideline Harvest Level ... GHL
Opening Dates ..... Dates:
Minimum Legal Size ..... Size:

R: ADAK

Reg: Nonexclusive
Pot Limit: No Pot Limit
Dates:
Red & Brown November 1
Size: Red & Blue - 6.5 inches
Brown - 6 inches

O: DUTCH HARBOR

Reg: Exclusive - Red & Blue
Nonexclusive - Brown
Pot Limit: No Pot Limit
Dates:
Red & Blue - November 1
Brown - September 1
Size: Red & Blue - 6.5 inches
Brown - 6 inches

T: BRISTOL BAY

Reg: Exclusive
Pot Limit:
250 - Vessels over 125 feet
200 - Vessels 125 feet or less
Dates:
Red & Blue November 1
Brown - By Permit
Size: Red & Blue - 6.5 inches
Brown - 5.5 inches

M: ALASKA PENINSULA

Reg: Superexclusive
Pot Limit: 40 or 75 Depending on GHL
Dates:
Red & Blue - September 25
Brown - By Permit
Size: All Species - 6.5 inches

K: KODIAK

Reg: Exclusive - Red & Blue
Nonexclusive - Brown
Pot Limit: 25, 50, or 75 Depending on GHL
Dates:
Red & Blue - September 25
Brown - By Permit
Size: Red & Blue 7 inches
Brown - 6.5 inches

H: COOK INLET

Reg: Superexclusive
Pot Limit: 40 or 75 Depending on GHL
Dates: Red & Blue - August 1
Brown - By permit during spring Tanner Crab Season
Size: All species - 7 inches

E: PRINCE WILLIAM SOUND

Reg: Superexclusive
Pot Limit: None
Dates:
October 1 & January 15
Size: Red & Brown - 7 inches
Blue - 5.9 inches

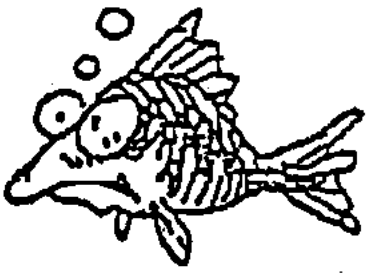
D: YAKUTAT

Reg: Exclusive
Pot Limit:
100 in Yakutat Bay
Dates:
Red & Blue - November 15
Brown - Emergency Order
Size: Red & Brown - 7 inches
Blue - 6.5 inches

A: SOUTHEASTERN

Reg: Exclusive
Pot Limits: 20 or 100 Depending on GHL
Dates: Red - November 1
Brown - February 15
Blue - Incidental to Red, Brown & Tanner
Size: Red & Brown - 7 inches
Blue - 6.5 inches

North
Pacific
Longline
Association



- FAX TRANSMISSION -

DATE: March 13, 1995

TO: NPFMC - Clarence Pautzke

FROM: NPLA - Thorn Smith Thorn

SUBJECT: **Combining Vessels Under License Limitation**

PAGES: 1

A while back I sent you a fairly elaborate package of materials on combining vessel licenses under a license limitation program - something provided for in the Pacific Coast Groundfish Plan. Two small vessels can be combined into a larger one, so long as the combined fishing capacity does not increase.

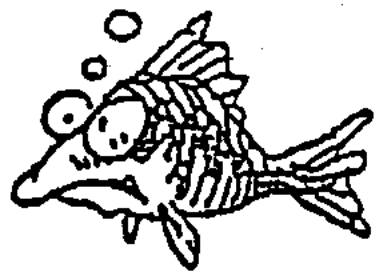
I wonder if you could put the cover letter in the Council books? You may recall that Rick Lauber was interested, but didn't want to do it under the moratorium. Perhaps it's something that should go out for public comment.

I'm not mounting any crusade here - but it may be a very good idea.

Thanks.

4209 21st Avenue West, Suite 300, Seattle, Washington 98199
TEL: 206-282-4639; FAX: 206-282-4684

North
Pacific
Longline
Association



February 1, 1995

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

RE: Modification to Moratorium/License Limitation

Dear Rick:

Just after the recent Council meeting I was informed by one of my members that two of his freezer-longliners have sunk, one in June of 1993 and another in the summer of 1994. The first vessel was 127′ in length; the other was 133′, for a total of 260′ - iron on the bottom. He would like to replace these two vessels with a single vessel 180′ in length. He has been informed that under the moratorium regs as drafted, he cannot combine vessels.

Since he wants to replace two vessels with one which will obviously have less capacity, I think we should consider his request seriously. We are overcaptialized, and forcing a man to put two vessels back into the fleet when he is willing to settle for one of reduced overall capacity seems counterproductive.

As it turns out, the Pacific Counsel has provided just such authority under its groundfish license limitation plan. Attached you will find the relevant portion of the FMP amendment, plus implementing regs. This plan allows owners to combine permits and to retire two vessels, replacing them with a larger (and safer) one. This can also be done - and has been done - with lost vessels. Marine architects working with NMFS have devised a schedule (attached) which makes sure that there is not an increase in capacity. Under this schedule, my member could replace his two sunken vessels with a single vessel 216 feet in length. He is willing to settle for a vessel of only 180 feet in length - a substantial reduction.

Since the Pacific Counsel has already done the analytical work to support this measure, it should be easy for us to adopt it if we wish. It seems to make all the sense in the world. We can pretend we thought of it!

4209 21st Avenue West, Suite 300, Seattle, Washington 98199
TEL: 206-282-4639; FAX: 206-282-4684

It would be a whole lot more efficient to make this a part of our current moratorium package than to amend the moratorium after it is in place. This would also seem to be a more effective way to implement the change than to have the Council comment on its own proposed program.

If you agree that this is an important issue, would you consider having a conference call on it? I regret that it was not brought to my attention before the January Council meeting. I think the April meeting is too late - the moratorium package will have gone to Washington, D.C.

Thanks for your for your attention and consideration.

Sincerely,

Thorn

Thorn Smith

P.O. Box 890
Petersburg, Alaska 99833
January 10, 1995

Mr. Richard Lauber
Chairman
North Pacific Fishery Management Council
Post Office Box 103136
Anchorage, Alaska 99510

Re: ANDREW MCGEE -- License Limitation Alternatives

Dear Mr. Lauber:

I recently received the Council's Newsletter of December 20, 1994 and am writing to express my strong objections to some of the options that the Council is considering. I am concerned that if the Council adopts them I would be prevented from continuing my efforts to raise my vessel, the ANDREW MCGEE, and return the vessel to service.

As you may remember, I testified before the Council on August 6, 1992 asking the Council to be sure the ANDREW MCGEE was included within the moratorium so that I could continue with the project. The Council voted unanimously to allow my vessel to participate during the moratorium. A copy of the letter to me from Clarence Pautzke dated August 11, 1992 is attached to this letter.

Now, however, after reading the December 20th Newsletter it appears to me that I may not be able to fish my boat afterall. I am writing to ask that you consider my situation as you review these options and that you not do anything that would overturn your 1992 decision permitting the ANDREW MCGEE to return to fishing.

Background

I am a commercial fisherman and a year round resident of Alaska. I have been actively involved in the fishing industry since 1972. My wife and I are the sole shareholders of companies owning three commercial fishing vessels, an 83 foot cannery tender, a 37 foot gillnetter and the ANDREW MCGEE, a sunken crabber/trawler with a registered length of 111 feet, which I have been trying to raise over the past few years. Because of problems with the flotation of the vessel and difficulties raising the money the project has taken longer than I had hoped. However, I am now in a position to put together sufficient funds to continue the project. Before I do that I need to know whether I can use the vessel.

I am experienced with salvaged vessels and have successfully raised four over the years. I acquired the ANDREW MCGEE in September of 1989 in order to realize a long time dream to own a vessel of more than 100 feet and to catch crab and groundfish. The boat was originally built in 1978 and fished in both the crab and groundfish fisheries. The vessel was fishing and had landed its catch in early 1988 when it hit a rock and sank in the vicinity of Whale Pass, Kodiak Island.

Immediately after acquiring the boat I spent more than $60,000 in an unsuccessful effort to raise her. I did not have sufficient flotation at the time to bring her up. The following year, after arranging for a market for the product, I was successful in bringing the boat to the surface two more times, but still was unable to raise her completely due to bad weather and the failure of some equipment. This cost me more than $120,000.

After these efforts to raise the boat, the Council came up with its moratorium proposal in June 1992. As proposed, the moratorium was unclear as to whether the ANDREW MCGEE would qualify. After my lawyer submitted a written motion on my behalf on July 27, 1992 and after my testimony before the Council the next month, the Council unanimously approved the motion to allow me to use the ANDREW MCGEE during the moratorium period. As you know, however, the moratorium regulations are still not final and may not be for months. This uncertainty has made it difficult to raise the money necessary to complete the project. Since then, however, I have continued to work at other jobs in order to fund the effort. I have also continued to work with salvors, attorneys and others in preparation for the raising.

License Limitation Alternatives

The problem now is that some of the alternatives under consideration by the Council would prevent my boat from receiving a license, even though the Council found expressly that it could participate in these fisheries. For that reason I am writing to let you know which alternatives would keep me from using my boat and to ask that you consider my situation as you develop the license program.

If there is any procedure available for special exceptions should my boat not otherwise qualify I would appreciate knowing how to apply and being considered for such treatment.

Groundfish -- License Recipients

I strongly support the highlighted provision which would make licenses available to current owners only. This would clarify my ability to obtain a license and avoid the problem of

sorting out possible claims by earlier owners. To allow owners at the time of landing or permit holders would result in the potential for immediate expansion of the fleet and for a major increase in capacity in the long term. It would also be a very complex system to administer.

Groundfish -- Qualifying Periods

This is a critical category for my boat since it has been sunk for several years. Of the eight alternatives only the following two would include my boat:

Jan. 1, 1978 - Dec. 31, 1993

Jan. 1, 1988 - June 27, 1992

I am strongly opposed to the selection of any other date because it would mean I would be ineligible to ever get a license for my boat.

Groundfish -- Landings Requirements

If the narrower qualifying period is chosen (Jan.1, 1988 - June 27, 1992), then I would strongly urge the Council to select the minimum number of landing requirements, specifically, only one landing. Otherwise my vessel may be precluded since it sank early in 1988 and few landings were made after January 1, 1988.

Crab -- License Recipients

For the same reasons noted above with respect to groundfish license recipients, I strongly support awarding licenses only to current owners.

Crab -- Qualifying Periods

Of the five alternative qualifying periods only the following two would include my boat:

Jan. 1, 1978 - Dec. 31, 1993

Jan. 1, 1988 - June 27, 1992

I strongly object to any proposed qualifying period that does not permit a boat that fished prior to February 5, 1988 from qualifying for a license.

Crab -- Minimum Landings

For the reasons noted above, I support the "no minimum" option since otherwise my vessel may be ineligible for a license.

Conclusion

I have spent more than $200,000 over the past five years to raise the ANDREW MCGEE in a continuing effort to return the vessel to the crab and groundfish fisheries. This has been done at considerable expense and hardship to my family. Even though the Council unanimously determined that my boat would be eligible under the moratorium, the management uncertainty surrounding these fisheries has made it very difficult to raise the funds necessary to take the final steps to raise the boat.

Finally, now after more than two years I have been able to arrange for the necessary financing. Before I can spend more money on the project, however, I need to know that the boat will qualify for a license once she is raised. Therefore I ask the Council to carefully consider these comments, and to adopt alternatives that would allow the ANDREW MCGEE to be licensed so that she may return to operation as the Council has already determined she should do when it last considered this boat in 1992.

If, for whatever reason, the alternatives selected by the Council might exclude my vessel I would like to be considered for any special exception procedure that the Council makes available that would permit the licensing of a salved vessel in the unusual circumstances of the ANDREW MCGEE.

Thank you for considering my comments.

Sincerely,

Jeff Berg

Jeff Berg

North Pacific Fishery Management Council

Richard B. Lauber, Chairman
Clarence G. Pautzke, Executive Director

605 West 4th Avenue
Anchorage, Alaska 99501

Mailing Address: P.O. Box 103136
Anchorage, Alaska 99510

Telephone: (907) 271-2809
FAX: (907) 271-2817

August 11, 1992

Mr. Jeff Berg
c/o Jess G. Webster
Mikkelborg, Broz, Wells & Fryer
1001 4th Avenue Plaza, Suite 3300
Seattle, Washington 98154

Dear Mr. Berg:

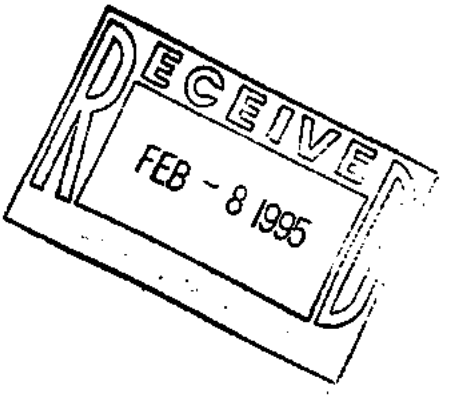
Thank you for being so patient at the Council meeting last week in Juneau. It took a while for us to get to the issue of moratorium rights for the F/V ANDREW MCGEE. As you are now aware, the Council thought you had a compelling case as related in your testimony and Jess Webster's letter of July 27, 1992, to Council Chairman Lauber. The Council unanimously approved a motion indicating their sense that the vessel should be eligible to participate during the moratorium.

Best wishes in your venture.

Sincerely,

Clarence G. Pautzke
Executive Director

cc: Steve Pennoyer
Lisa Lindeman



NPFMC
Richard Lauber
Council Chairman
P.O. Box 103136
Anchorage, Ak. 99510

27 January 1995

Dear Mr. Lauber,

I recently lost my fishing vessel Ocean Spray in a sinking, fortunately without loss of life. I am in the process of analyzing my loss and planning for the future. At this point my greatest concern is the preservation of the fishing rights from the vessel. One of the forces behind the initial purchase was the excellent catch history since 1968 of the vessel as well as the versatility. Since the 1991 purchase we have trawled for pollock, cod and yellowfin sole as well as crabbed in the Bering Sea. From my understanding of the rules, the vessel would therefore qualify for the potential moratorium and be included in any future IFQ's or ITQ's that would be issued. Before I am able to make sound business plans for the future I must be assured that the fishing history and right to participate in the ground fisheries in the future will be passed on to me after the loss, if the industry pursues these avenues. I need to know if these rights will be allowed to be passed to another vessel. NMFS clearly allows black cod and halibut rights to flow through to an individual who lost a vessel during the qualifying years. Will this be the intended case with the groundfish and crab system?

I appreciate your attention to these matters.

Thank-You,

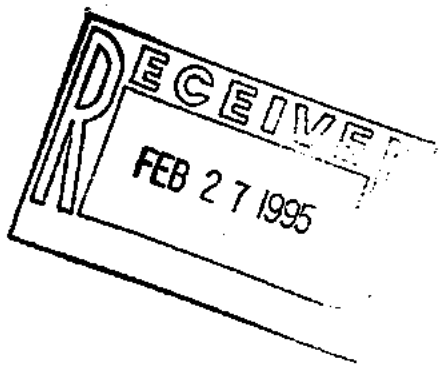
W. Walter Raber

W. Walter Raber
P.O.Box 1235
Cordova, Ak. 99574

cc: Steve Pennoyer

Unalaska Native Fisherman Association

P.O. Box 591, Unalaska, Alaska 99685 Phone: (907) 581-3474 (FISH) Fax: (907) 581-3644



February 20, 1995

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

Dear Mr. Lauber:

As you know, the Unalaska Native Fisherman Association and many others in the coastal communities of Alaska are very concerned about access to the fisheries under CRP. On February 7th, members of UNFA held a tele-conference with fishermen from Sand Point, Alaska Marine Conservation Council members Paul Seaton, Fran Bennis and Nevette Bowen, and NPFMC member Linda Behnken. We discussed several options under CRP and decided on an exemption option that will fit into this plan. We propose that there be a 32' or 35' exemption from CRP in both the BSAI and the GOA. The 26' exemption under the moratorium in the GOA is not acceptable to us because we live on or very near the borderline which separates the BSAI and GOA, and we need to be able to fish on the Pacific side as well as the Bering Sea. A 26' exemption would not allow us to do this safely. To get to the Pacific side, we have to go through a dangerous stretch of water called Unalga Pass, and to do this in a 26' boat, especially when loaded with Cod fish makes me too nervous to want to try it on a regular basis. I'm sure that entry level fishermen who live in other areas of the GOA don't want to be stuck in a 26' boat either.

What we want is a total exemption for 32' or 35' boats under both the moratorium and CRP in the BSAI and GOA. We also propose to place a limit on the number of jigging machines for each vessel. This would allow larger boats to enter into the fishery, without letting things get out of control. We would like to see a limit of 5 jigging machines per boat. So for boats over 32' or 35', the exemption under CRP and Moratorium would be for jig gear only with a 5 machine limit.

At the January NPFMC meeting in Anchorage, I gave public testimony on the issue of CRP in which I advocated a 60' exemption in both the GOA and BSAI for jig gear only. Clem Tillion pointed out to me that in Norway and Iceland, jig boats had crew members on board who could efficiently operate 5 machines each. With 3 or 4 deck-hands, this would be 15 to 20 jigging

machines per vessel! I can see how this could be a problem. If I could find one crew member who could operate 5 machines efficiently, I would hire him immediately and guarantee him the highest crew share percentage in Alaska! But a limit of 5 machines per boat will solve the problem of over-capitalization in our fishery. Nothing is worse than those who become victims of their own greed, which seems to be the case in some parts of the fishing industry. We want to avoid these problems. With our proposal of a total exemption for 32' or 35' boats, and a jig-only exemption with a 5 machine limit for any larger boats, we feel that his will be accomplished.

We feel that a separate jig quota for the Gulf is also necessary. We would like to see these jig quotas expanded to other species besides P-cod. Atka mackerel, rock fish and many other species could be harvested in a way that is cleaner and more responsible than any fishing method ever utilized in the waters off the coast of Alaska. I don't want to seem like I'm trying to ask for too much, but I can't resist mentioning one more thing - how about a jig quota for halibut and black cod? Like I said, I only mention it. The topic that I wish to stay focused on is our exemptions under CRP.

I am enclosing a copy of a Memorandum to Paul Seaton of AMCC regarding our tele-conference on February 7 on the subject of accessing the fisheries under CRP. We really need your help on this issue, and so I hope you will read this and see the logic in our proposal. I look forward to the April NPFMC meeting in Anchorage and the members of UNFA are very excited about the Council's June meeting here in Unalaska. I want to wish you and all the members of the council best regards from the Unalaska Native Fisherman Association.

Sincerely,

Andy McCracken
Board Member

AnDy

15

MEMORANDUM

Draft

TO: Paul Seaton
President, Alaska Marine Conservation Council

DT: February 7, 1995

RE: Community Access to Fisheries under North Pacific Council Limited Entry Plan - Sustainable Development

FR: Nevette Bowen
Community Involvement Coordinator

I have attempted to summarize our discussion this morning with the Unalaska Native Fisherman's Association and the folks on the line from Sand Point and have tried to include areas of general agreement.

Please find attached the Community Stability Discussion Paper which provided a jumping off point for our teleconference this morning. Our discussion primarily focused on elements of Options D and E.

Option A. - Exempting state waters from limited entry/IFQ proposals will not solve the community access problems under the State of Alaska's license limitation proposal.

Participants pointed out that state waters do not fulfill fishery needs in our coastal communities. (For example, P-cod fishermen often must go outside the 3 mile limit to find fish). As a result, simply exempting state waters from CRP (Option A) will not adequately provide community access to groundfisheries for our local fleets. In short, it is not a single solution to the community access problem under the license limitation proposal.

Option D. *Exempt* jig fishery from limited entry/IFQ proposals for the purposes of allowing community access to local fishery resources, encouraging selective fishing practices and promoting community well-being and stability.

Participants agreed that exempting the jig fishery from CRP (Comprehensive Rationalization Plan) limited entry/IFQ proposals should be pursued.

It was further agreed upon that an exempted jig fishery should have a five machine limit as a means of initially preventing over capitalization in these fisheries (as opposed to size or trip restrictions)

Option B. Boat Size/Moratorium

It was pointed out when CRP goes into effect, the moratorium for those fisheries included under CRP will no longer apply. It was agreed that while the moratorium is in effect, the exemption for vessel size limits should be equalized in the Gulf and Bering Sea to 32' although there was no object to increasing it to 35' to accommodate local fleets in Yakutat and elsewhere.

The bottomline consensus, however, was that ultimately a boat size restriction was not needed in the jig fishery if the number of jigging machines was limited to five. Thus, if the jig fishery is exempted from CRP, we will need to make sure that moratorium size limits are lifted as well.

Option A was not discussed in detail. There was general agreement that state waters do not fully provide community fishery needs. Option C was not discussed.

Gulf of Alaska Jig Allocation

It was generally agreed that a jig allocation is needed
for the Gulf of Alaska similar to the 2% allocation in the Bering Sea to provide access to local fishing resources, promote economic stability in our communities and encourage the conversion to cleaner fishing practices.

Such an allocation would allow the jig fishery to operate year around. The trawl/pot/longline P-cod fishery would continue to occur January through March unless quarterly allocations stretch that season as well.

The jig allocation could allow the coastal fleet to fish for P-cod (and rockfish with state/federal approval) year around and would go a long ways in encouraging fisherman to choose selective fishing practices.

It was suggested that the jig fishery include multispecies catches and not be limited to P-cod as a proactive means to avoid bycatch and single species management problems down the line.

Magnuson Act Considerations

Senator Steven's bill (S.39) currently includes language requiring limited access proposals by the Council and NMFS to take into account "the cultural and social framework relevant to the fishery and fishery dependent communities." Page 33, January 4th draft. The bill also provides guidelines for entry level access as well.

It was the feeling of the Unalaska Native Fisherman's Association that the jig fishery exemption meets this requirement.

In followup discussions after the teleconference the following suggestions were made for consideration.

Bycatch/habitat issues - Ideas for consideration

Licenses for gear within the groundfisheries should permit fishermen to convert high bycatch gear to lower bycatch gear - i.e trawls to pots but not necessarily the other way around.

Contacts:

Unalaska Native Fisherman's Association - 581-2920 3644 (fax)
c/o Qawalangin Tribal Council

Emil Berikoff 581-2920 3644 (fax)
Bobby Storrs 581-1626 or 2225 2837 (fax)
Andy McCraken 581-2525

Fred Holmberg, Paul Holmberg and Bill Johnson
383-3383 (Fred's #)

Alaska Marine Conservation Council 277-5357 (office) 5975 fax
Paul Seaton, Homer, 235-6342 (fax too)
Nevette Bowen and Fran Bennis (see office)

Linda Behnken and Dan Falvy, Sitka 747-3400 3462(fax)

MAINTAINING [illegible]

A Discussion Paper

The North Pacific Fishery Management Council is considering a license limited entry program to rationalize the Gulf of Alaska and Bering Sea groundfish and crab fisheries. The stated goals of the comprehensive license program are to: maintain ecosystem productivity, reduce over-capitalization, promote community stability and industry diversity, and reduce bycatch and waste. Before the Council takes final action on the program, Alaskan residents should evaluate the program in terms of these goals.

Over-capitalization, which has lead to excess harvesting capacity, is generally viewed as the driving force behind current fishery management problems. Analysis presented to the Council indicates that the fleet's harvesting capacity, and hence over-capitalization problem, rests with the large vessels: 85% of the GOA and BSAI groundfish catch is taken from vessels over 90 feet (Comprehensive Rationalization Plan (CRP) analysis), and less than 6% of the groundfish catch is taken from vessels under 60 feet (Research Plan; Moratorium analysis). However, CRP options currently under consideration by the Council significantly reduce the number of small vessels qualifying for a license, and have little effect on the large, high capacity vessels.

Most of the smaller vessels that will not qualify under CRP deliver to local communities, and are owned and operated by resident Alaskans. The Council's current consideration of CRP options that significantly reduce the size of this small boat fleet are doing little to address over-capacity yet could significantly undermine the socioeconomic health of Alaska's coastal communities. In order to achieve the CRP goals of promoting community well-being and stability, we request the Council consider the following options:

A. **Establish Regional Access Zones**: Exempt State waters from CRP license requirements
   - Option 1: Exempt State waters from CRP license requirements after September 1st.
   - Option 2: Exempt State waters from CRP, but require vessels fishing State waters to:
     - Use selective gear (e.g., jig)
     - Operate under trip limits
     - Deliver a percentage of their catch with-in the region
   - Criteria for Regional Access Zones to be established by State

B. **Exempt small boats** (e.g., <35', <50', <60')

C. **Designate SEO** (east of 140 degrees W.) **hook and line only**

D. **Exempt shore-based jig fishery** with species specific trip limits from CRP

Ideas to get other ideas going

TO: NEVETTE BOWEN
AMCC

TOTAL P. 1

TOTAL P.06

The North Pacific Fisheries Mgt. Council
% Alaska Independent Crabbers, Inc.
P.O. Box 3186
Homer, Ak. 99603

Dec. 27, 1994

Gentlemen:

How can supposedly intelligent caring people take a national fishery away from the people?? At a time when welfare and such give-away programs are rampant you want to privatize an industry that helps people to be self sufficient. I believe the program you are fostering belongs in a communistic type country. I have been fishing for about 50 years and have crabbed since its very beginning, your program would inhibit my ability to improve or excel as well as any person young or old. It will totally destroy the dreams of young people growing up and inhibit their ability to participate in ownership.

I have a couple of suggestions:

1. Limit the number of pots. If you compare the number of pots used in the Pribilof red crab or Matthew Isl. seasons which had a pot limit of 50-75 pots respectively to the Bering Sea red crab seasons with 250 pot limit you will find the cpue better in the lesser pot areas. This would also dramatically cut pot loss which would benefit environmentally.

2. Cut the size of the trawls. When trawls are so large you can loose the Seattle King Dome in their entrance, that is pure greed and you are supporting it.

With all the information we fishermen have given the governmental agencies they should by this time be able to recommend a safe number of pots for their quotas. After all what we are concerned about is conservation. Right! You could require that all boats register 60-90 days prior to the start of a season which would give you the time to determine the number of pots for that season and divide that number by the amount of boats registered. Then 30 days before the season let the fishermen know the pot limit. This would be simple yet leave the fisheries open to everyone as it should be. The obvious is a regulated fishery. With more boats there would be less gear and with less boats more gear per boat.

The average boat is making almost three times now than what it used to make ten years ago.

Overcapitalized Crab Fisheries? The Truth is...

The average boat gross in 1981–1984 was **$426,035** per year.

The average boat gross in the last four years (1991 – 1994) is **$1,112,479** per year.

Average **OPILIO** gross

1981–1984	**125,064**
1991–1994	**695,982**

And... a shorter season means less overhead. (The 6 month season is now 1 month)

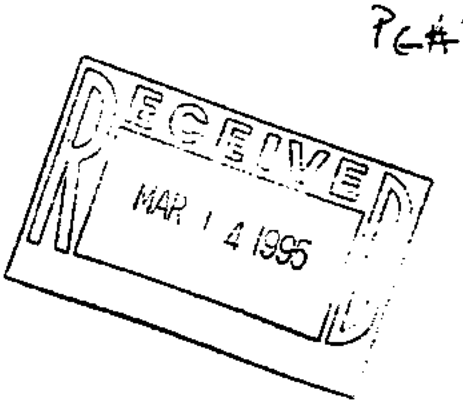
5 months fuel and bait for an average boat is: Fuel: $90,000 / Bait $37,500
This equals a savings of **$127,500** for the shorter season.

All information from Regional Info Report #4K94-29; July 1994
Annual Management Report for the Shellfish Fisheries of the Westward Region.

Alaskan Independent Crabbers

Autumn T. Person
President

PC #1



DAVID HILLSTRAND
BOX 1500
HOMER, ALASKA 99603
(907) 235-8706

N.P.C. RICHARD LAUBER
NMFS ROLLAND SCHMITTEN
SENATORS MR. STEVENS & MR. MURSOWSKI
CONGRESS MR. DON YOUNG

LIMITED ENTRY COMPARED TO IFQ'S

If the council feels that open access with gear restrictions; in cleaning up bycatch and economics; in determining how affordable and worth while it is for a vessel to stay in the fisheries, can not create a balance and still preserve our freedom and protection of our resources from excessive government and corporate control. Than I would like to compare Limited Entry to IFQ's; the benefits to the fisheries and the fairness to the users!

1. In a **limited entry** system management is helped from knowing how many will participate. Other measures are needed to fine tune management; such as gear restrictions.
2. LE is usually controlled with timed openings.
a. This allows the fleet to be prepared before each opening. Ensuring their vessels are equipped and prepared for any weather or breakdown!
b. Roe and meat recovery is timed at its fullest to ensure quality.
c. Enforcement is helped by knowing when seasons open and close.
d. Safety is at its highest; most rescues are performed by the fleet or the USCG being in the general area.
e. With the ADFG, NMFS, and the IPHC being able to chose the opening date safety for the fleet, and access for the smaller vessels is ensured.

f. We ultimately choose when we fish and do not fish, no matter if others are! This year from November of 1994 - March of 1995 have been the roughest and coldest I have seen in some years. Our vessel has its limits and we know them, if you chose to exceed them you will die. The weather can pick up in a 12 hour period when your out there; you better be prepared! No running to port, your in it and you better slow down. The accidents that are happening are from those who become lazy and do not stop to chip ice, unexpericenced crews, or those who do not value their lives over money, they forget about the ones that could be left behind ! We slow down to fish another day! Thats our famous saying. Or run from the Ice to fight another day!

3. Bycatch in a LE system is solved by

a. closing areas, gear restrictions, careful returns; or by reserving a portion of the quota to be retained when a established fishery occurs; such as a trip limit of a certain species.

6. When others chose not to fish or drop out, those that remain gain access to the quota with out additional cost or debt.

7. Each permit or entity stays intact. This provides the onshore facilities the needed product, along with supplies, and repairs that are created from each vessel.

IFQ's help management in limiting entrants but will cause problems with inseason management; by not allowing a season to close early from the catch per unit being to low.

a. Timed openings will not be used as practical as they are now; loosing and causing additional enforcement.

b. Safety will decrease with extra time spent at sea.

c. Vessels may venture to places they have never been before, not allowing the time to return if the weather picks up. Kodiak gives a two day out look of the weather.

d. The time of year determines when the weather will be nice, which is usually in the summer. Now we will be allowed to fish from March through November in the Sablefish and Halibut fisheries. The Halibut fishery occurred in June under a timed

opening; usually the calmest time of the year. This was prudent management and helped the smaller vessels participate.
e. Rescues will not be as timely from other vessels or the USCG; because each vessel will come and go as it pleases!
f. IFQ's do not fairly allocate the resource when first implemented. A few bad years or just starting to fish with only one year of qualifying out of three. Some chose to learn new areas to fish and do not do as well; or the fish moved from last year. All of these reduce and penalize ones catch record. A word not found in the Magnuson Act.
g. IFQ's allow one to increase their catch unless one occurs debt!
h. If a IFQ holder chooses not to fish the others can not catch that % percentage of the quota! **That reminds me of the large amount of IFQ's confiscated by the IRS!**
i. IFQ's can be consolidated creating lost employment to the crew and the onshore infrastructure!
j. Bycatch is not solved; but is justified and continues to allow the gear that causes this waste to still fish! **Yes we need to change the way we fish!**
k. IFQ's do not require or ensure that all species caught with a certain gear be retained; but only when it is convenient for the catcher! They do give a vessel more time to sort and discard fish that are not desired! Hopefully with observer coverage! Probable not!

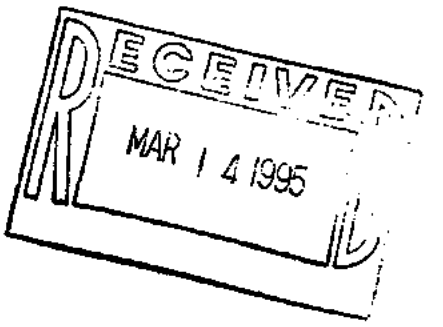
CONCLUSION:

WE THE UNDERSIGNED HAVE CONCLUDED THAT WE DO NOT WANT IFQ'S FOR THE CRAB FISHERIES. WE HAVE A SMALL BYCATCH WHICH WILL CONTINUE TO BE FINED TUNED WITH GEAR RESTRICTIONS!

WE PREFER OUR TIMED OPENINGS AND FISHING TOGETHER AS A FLEET FOR SAFETY!

WE DO NOT WANT TO OCCUR DEBT IF OTHERS DROP OUT! WE CHOSE TO IMPROVE OUR CATCH BECAUSE OF OUR KNOWLEDGE AND NOT BE BUYING ADDITIONAL SHARES!

POSITION	ADDRESS	SIGNATURE
owner operator	Box 1500 Homer AK 99603	Laura Hillstrand



DAVID HILLSTRAND
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N.P.C. **RICHARD LAUBER**
NMFS **ROLLAND SCHMITTEN**
SENATORS **MR. STEVENS & MR. MURSOWSKI**
CONGRESS **MR. DON YOUNG**

If the NPC feels we need IFQ's than postpone them for a three to twelve year period after a limited entry system is in place and all other restrictions and management tools are applied and used to reduce bycatch, and overcapitalization.

Rollland Schmitten has said IFQ's will work for some fisheries but not for others. This was during his visit Alaska in 1994. I would like to thank him for proceeding with caution. Mr. Schmitten what would your father and your brother in the Salmon troll and seine fisheries have to say if IFQ's were done instead of limited entry? Or all the other salmon permit holders?

Jim Seger of the Pacific Fisheries Management Council is proceeding slowly with IFQ's; he should be highly commended! He and others on the council were " still unsure about how a ITQ plan could be fairly implemented". They were waiting for the Magnuson Act to be amended! Hopefully it will be done by our Senators and Congressmen in Fairness! Why did the NPC not wait?

Here is an excerpt of the Pacific Fishing magazine; Dec. 1994. Where a high ranking NMFS official and Steven Shapiro the editor have a conversation #1. ATTACHED

Why should we have to spend our money to influence and fight for what is fair and equitable to all? Should not the laws that we

have ensure this? Or why should others spend money to influence it to go their way **at the cost to others**?

Why the law suit against IFQ's? Why the overwhelming public testimony against IFQ's?

The NPC implemented its IFQ plan that reduced current participants of one or two year by being divided by three years. This reduced and penalized ones current catch!

The NPC failed to use a range of years where all participates current and historical had consistence landings! They are suppose to be a group of people who have the knowledge and wisdom to administer a system that is fair. Their knowledge should have included other ITQ and IVQ systems; such as in Canada.

The Canadian IVQ system was not put in place until 1991. Prior to that they had a Limited Entry system for twelve years 1979. #1 University of Alaska of Alaska.

The Canadian government created a stable environment first through a limited entry system!

A IFQ system that is put in place prior to creating a stable fleet causes even further instability and unfair allocations!

DAVID HILLSTRAND

David Hillstrand

EDITOR'S WATCH

Manage Until We're Dead Or Broke

The North Pacific Fishery Management Council has been spending a lot of time perusing "comprehensive rationalization" of the groundfish and crab fisheries in Alaska. For those short on technical jargon, that means they are trying to devise a sensible management plan to alleviate overcapitalized fleets, improve safety, and allow for superior performance in the marketplace. The current track is toward some form of limited entry, which to many implies the eventual distribution of Individual Fishing Quotas.

There would likely be overwhelming acceptance of an IFQ plan if everyone involved got what they felt was an equitable share. Since there are far too many potential recipients of quota shares for this to happen, the process is mired down by innumerable twists of lobbying, political infighting, legal maneuvering and intractable public and private debate.

I recently had occasion to ask a high-ranking NMFS official where this process was heading. He shrugged. I have a theory, I told him, on how this is likely to get resolved. An economist would suggest that someone who thinks they stand to lose a million dollars on a given transaction will spend up to a million dollars to avoid that fate. Makes sense. If it costs him half a million bucks to alter the outcome, he's still half a million ahead of where he would have been if he lost it all. By that logic, there are an awful lot of factory trawlers, shoreside processors and other large corporate fishing entities who should be spending lots of cash and energy trying to derail or reroute the IFQ train. And, in fact, they are.

So my presumption, I told him, is that comprehensive rationalization won't happen until everyone who stands to lose out under a quota system either spends right up to the amount of money they think they will lose or they finally expire in the effort.

The official's jaw dropped. He was aghast. "You really want me to comment on that?" I nodded.

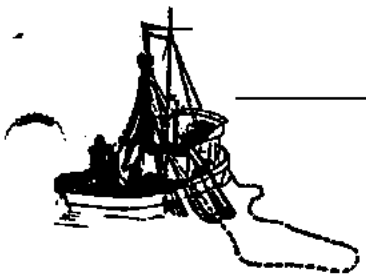
He looked furtively over each shoulder before whispering, "You've hit the nail right on the head, but you better not ever tell anyone I said so."

The reason, of course, is that it is a tacit admission that the current road to "rational management" is filled with wasteful, costly, counterproductive potholes. One prime example is the recent action on the moratorium, a plan that was designed to limit the number of boats that might ultimately have to be considered under any comprehensive rationalization plan.

Nearly two years ago in the pages of this magazine (March 1992), Steve Davis commented, "If it is going to have any real effect, [the moratorium] must indeed freeze the fisheries and their respective fleets in their current configuration . . . Critics may claim that flexibility is needed to allow fishermen to move from one fishery to another in response to changes in stock conditions, market conditions, etc. I agree that such flexibility is important in the comprehensive, long-term plan that is eventually developed [but] such flexibility would undermine the purpose of the moratorium. Without such strict rules, the moratorium wouldn't really freeze the fisheries at all, and large movements of vessels and new gear into fisheries will occur."

NMFS recently rejected the council's moratorium plan because of its failure to take heed of this point which was brought to its attention over two years ago; and this was only to be a rudimentary step toward the much more difficult enactment of comprehensive rationalization. If the industry is to avoid stumbling into the next century, all involved—including the council and NMFS—must make a commitment to move forward with reasonable compromises that will effect real solutions to these management problems. The alternative is let them resolve themselves when enough people are dead or have gone broke.

—Steve Shapiro, Editor



City of False Pass

P.O. Box 50 • False Pass, Alaska 99583-2350
Telephone (907) 548-2319 • Fax (907) 548-2214

RESOLUTION NO. 95-15

A RESOLUTION OF THE FALSE PASS CITY COUNCIL SUPPORTING THE EXEMPTION OF VESSELS IN THE JIG FISHERY WITH A LIMIT OF FIVE JIG MACHINES FROM THE NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL'S (NPFMC) COMPREHENSIVE RATIONALIZATION PLAN (CRP), AND SUPPORTING THE EXPANSION OF JIG ALLOCATIONS TO THE GULF OF ALASKA FOR PACIFIC COD, AND OTHER SPECIES.

WHEREAS, the small boat fleet owned by the residents of the coastal communities of Alaska catch a very small percentage of the TAC in the fisheries listed in the CRP; and

WHEREAS, residents of coastal Alaska rely heavily on commercial fishing for their livelihoods; and

WHEREAS, the small boat fleet, which utilizes cleaner fishing methods in fisheries listed in the CRP, believe they are not part of the over-capitalization problem and should be able to gain access to all fisheries listed in the CRP; and

WHEREAS, the NPFMC recently ruled to set aside 2% of the TAC for Pacific cod in the Bering Sea for the jig fishery; and

WHEREAS,the small boat fleet wishes to see jig quotas expanded to include other species, including Atka mackerel and rock fish,

NOW THEREFORE BE IT RESOLVED that the City of False Pass supports the exemption of vessels participating in the jig fishery with a maximum of five jig machines per vessel regardless of vessel size from the NPFMC's Comprehensive Rationalization Plan/ license limitation; and

BE IT FURTHER RESOLVED that the City of False Pass supports an allocation for Pacific Cod in the Western Gulf of Alaska for jig fishermen substantial enough to provide a year round local small boat fishery.

PASSED AND ADOPTED BY A DULY CONSTITUTED QUORUM OF THE FALSE PASS CITY COUNCIL THIS 21st day of March, 1995.

ATTEST:

Borge Larsen
Mayor

Clerk

TESTIMONY OF THE PENINSULA MARKETING ASSOCIATION BEFORE THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL ON THE COMPREHENSIVE RATIONALIZATION PROGRAM

APRIL 17, 1995

For the record, my name is Barbara Wilson: I am president of the Peninsula Marketing Association (PMA). We represent fishermen of the Alaska Peninsula and Shumagin Islands. Today I would like to give the Council our preferred options on the Comprehensive Rationalization Program.

Our main concern is that we need to keep fishing opportunities flexible so that fishermen in our small, coastal village communities can respond to changing market demands as well as fluctuating stock abundance.

As we have testified before our primary concerns are:

1) The Federal groundfish license limitation program should apply only outside territorial seas.

2) The Gulf of Alaska should be split from the Bering Sea in such a way that the Bering Sea interests would be free to move toward an IFQ/CDQ program if they want. Gulf interest would be free to move toward a simple license limitation program.

3) The Gulf license limitation program should not roll over into IFQ's.

The Bering Sea represents a very industrialized fishery. The vessels that fish the Bering Sea are not locally owned by village community residents. By allowing the Bering Sea to deal with their capitalization concerns through an IFQ program and separate the Gulf off to pursue a simple license limitation program, we feel you would be better able to manage the fisheries. Village communities in the Bering Sea have already been established as CDQ programs. Gulf villages participate directly in

groundfish fisheries. Splitting the Gulf from the Bering Sea could justify IFQ's in the Bering Sea. The smaller Gulf vessels are not capitalized in the same way that the larger Bering Sea vessels are. It makes sense to treat these areas and their problems separately.

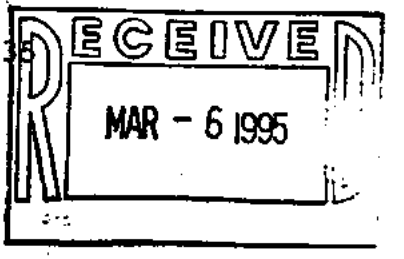
The issues we face in our groundfish fisheries in the Western Gulf are very fresh in our minds as we just completed our cod and pollock seasons. As I am sure many of you are aware, our season was not without many of the very problems we have asked the council to help us find solutions to. As we have told you we are a multi-gear fishery and depend on the ability to keep fishing opportunities flexible. Implementing a license limitation program without careful consideration of the nature of our vessels and fisheries, will cause substantial social and economic impacts. The vessels of our members in the association are individually owned and operated and represent generations of families that depend on their ability to fish as their sole source of income. Some of our members have experienced opposition to their participation in the pollock fisheries by a local processor. They were given a simplified reason, that the local vessels are too small and underpowered to efficiently trawl. The processor gave markets that were inaccessible to local fishermen to their company owned vessels. Under the license limitation program if species endorsements become the preferred option many of our fishermen will be left out because of lack of markets. Development of underutilized species has been very slow in our region. Therefore we do not support species endorsements.

One might conclude we need more processing efforts. We have tried that route and fishermen have lost the local market, for selling to an outside market and had their salmon markets were threatened over pollock or cod markets. One processor has put himself in a unique situation by acquiring ownership of his own fleet. The processor told us it was necessary for them to have a steady supply of product and this insured them of that, as there are times we are constrained by weather and unable to fish. We ask, who is racing for fish? It appears processors. Not only do they want to process the quota they also want to be the fishermen, the results being they don't want to pay for what

they process. Our association does not believe processors should own the quota nor be able to catch the quota! Small local community village fishermen are the ones being overlooked and discarded.

In closing, we would like ultimately to see: the Gulf of Alaska separated from the Bering Sea with exclusive registration and a simple license limitation numbering scheme taken from the EA/RIR document as 21541. The last digit is omitted for lack of support for species endorsements. We would like to further comment on the qualifying period. We support option 400 with the stipulation and understanding this licensing program would not apply inside state waters. If state waters were not excluded we would then support option 500.

Robert Younger
311 Peterson Ave.
Sitka, Alaska 99835
907-747-6965



Chairman Richard Lauber
N.P.F.M.C.
P. O. Box 1013136
Anchorage, AK 99510

March 1, 1995

Chairman Lauber:

I would like to take this opportunity to comment on a few aspects of the CRP.

One of the most rational proposals that is before you is to make all waters east of 140 degrees a hook and line only zone. A trawl closure for Southeast is not a new issue to the Council. I believe the public record has already been built to support this idea. Habitat damage at 2 or 300 hundred fathoms is not easy to prove. Trawling's track record on the east coast and beyond is proof enough for me.

Trawling does have its place in the North Pacific, although Southeast Alaska isn't it. The economics of Southeast's coastal communities depend on our hook and line fisheries.

The last time the Council visited this issue the Trawlers stated this was simply an allocative issue and one of perceived problems. I personally perceive this as being a rational approach to preserving the hook and line way of life in Southeast.

Another concern I have on the license limitation program is sufficient opportunities for the small boat fleet. To me, the small boat fleet are the less than sixty foot vessels. Any program for hook and line groundfish should have vessel categories that correspond with the IFQ program. Vessel categories were included in IFQ's for a good reason and the same rational should apply on CRP. By the same token, qualifying criteria should be historic and not be so restrictive that it limits opportunities for the under sixty foot vessels.

Maintaining a diversified fleet was a major goal when developing IFQ's. I hope the Council won't overlook the importance of this while blue-printing the future for the rest of our groundfish fisheries.

Thank you for considering my concerns.

Sincerely,

Robert Younger

810 District Line Road
Burlington, WA 98233
April 12, 1995

Mr. Richard B. Lauber
Chairman
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, AK 99501

Re: Crab License Limitation Plan

Dear Mr. Lauber:

I am a crab fisherman and currently operate the DEBRA D, a 110 foot long crabber in the North Pacific. I understand that the Council plans to adopt a license system at its meeting this month and I am very concerned that it might keep me from continuing to fish. I strongly urge the Council to adopt a qualifying period that recognizes those of us who are currently participating in the fishery rather than giving windfall profits to those who left years ago.

In addition to the DEBRA D, I have owned and operated other fish tender vessels. My wife and business partner, Debbie Warren, and I have a long-time commitment to this industry. Having earned enough in the tendering business to start fishing on my own, we rebuilt the DEBRA D, beginning in the late 1980's. Shortly after the boat was completed in 1990, but before we could get her fishing, I suffered a serious back injury which prevented me from taking the boat fishing. This was a very difficult time for our family and was very expensive. Fortunately, however, we were able to hold on to the boat, and by 1993 I was well enough that I could take the boat fishing for the first time.

Once I started fishing again, I knew that the Council was looking at ITQs at some point in the future but was very surprised to learn late last year that the Council was considering a license system that might kick me out of the fishery. I was even more surprised to learn that you might reward others who fished years ago, even though they had no current, or even recent, involvement in crab fishing. It is only fair, when a change in the laws and regulations takes place, to recognize the current participants who will be affected the most by such a change. While I recognize the need to limit fishing effort to prevent harm to the resource, it makes

no sense to me to create a windfall benefit for those who have voluntarily left the fishery already and kick out those of us who are presently fishing. It makes even less sense to force me to pay money to someone who has already left (to get his license) just so that I can continue to fish. I hope the Council will do better than that. I urge you to adopt the January 1, 1992 -- December 31, 1994 qualifying period, or the January 1, 1978 -- December 31, 1993 period, or any other proposal that recognizes current participants in the crab fishery.

At the very least, if the Council chooses a qualifying period that eliminates recent participants, I strongly ask the Council to add special authority to create a "hardship exception" for those who can show that their late entry to the fishery was caused by reasons outside of their control. The guidelines for these hardship cases could be carefully drawn so that they could not be taken advantage of, while still providing a way for those, like myself, who took concrete steps to enter the fishery at an earlier time but were actually physically precluded because of health or similar reasons.

Finally, if the Council is unable to adopt either of the above recommendations, I request that the Council make the licenses transferable, at least in limited circumstances, so that fishermen like myself could try to purchase the rights to stay in the fishery. Anything that can be done to make licenses available for loan collateral is also important, since very few fishermen will be able to buy these rights unless they can also use them as security for the loans needed to pay the sellers.

I appreciate your attention to my comments and ask that they be included in the meeting notebooks for the Council and the Advisory Panel. I hope that the Council will do the right thing so that fishermen who are currently in the fishery will not be forced out or forced to buy expensive rights from former fishermen.

Sincerely,

Brad Warren

Brad Warren

C-3

MR. RON HEGGE
C/O NPFMC
FAX 1 907 345 8213

FROM : F/V KODIAK PARTNERSHIP
F/V DETERMINED PARTNERSHIP

DEAR MR. HEGGE

OUR TWO VESSELS HAVE PARTICIPATED IN THE ALASKAN CRAB FISHERIES SINCE 1979, OF THE FOUR PARTNERS IN THE TWO PARTNERSHIPS, THREE OF US ARE ALASKAN RESIDENTS. WE FEEL THAT THERE ARE MORE THAN ENOUGH VESSELS PARTICIPATING IN THE FISHERIES AT THE PRESENT TIME AND THAT THE COUNCIL SHOULD CAP THE NUMBER CLOSE TO THE PRESENT NUMBER OF PARTICIPANTS AND NOT ALLOW MORE ENTRANTS INTO THE CRAB FISHERIES.

WE WOULD URGE THE COUNCIL TO ACCOMPLISH THIS USING THE PUBLISHED MORATORIUM DATE OF JUNE 27 TH 1992 AS THE LAST QUALIFYING DATE FOR A LICENSE, AND CHOOSE ONE OF THE PUBLISHED OPTIONS. WE PREFER THE OPTION WITH THREE DELIVERIES OVER THREE YEARS FOR A GENERAL LICENSE WITH ENDORSEMENTS.

A GENERAL LICENSE OPTION THAT WILL LICENSE FIVE HUNDRED VESSELS THAT CAN FISH ANY AREA, IS NOT IN THE INDUSTRIES BEST INTEREST. IF THE CRAB STOCKS RECOVER YOU CAN BE CERTAIN THAT THESE LICENSES WILL BE FISHED AT SOME TIME. THE FLEET IS ALREADY OVER CAPITALIZED AND WE DON'T NEED ANY MORE VESSELS PARTICIPATING .

WE ARE NOT BEING REPRESENTED BY ANY OF THE ORGANIZATIONS AT THIS COUNCIL MEETING , AND THAT IS THE REASON FOR THIS LETTER. THANK YOU FOR CONSIDERING OUR INPUT.

Tim Longrich

TIM LONGRICH

F/V KODIAK
F/V DETERMINED

C-3

TO: ACC
FROM: PAUL
I SENT TODAY

GOLDEN SHAMROCK, INC.
FISHERMAN'S TERMINAL - WESTWALL BLDG., SUITE 218
SEATTLE, WASHINGTON 98119
TEL: (206) 282-5825 / FAX: (206) 282-3697

TO: North Pacific Fishery Management Council

ATTN: c/o Ron Hegge

FAX#: 1 907 345-8213

FROM: Pro Surveyor Partnership

DATE: April 20, 1995

TOTAL NUMBER OF PAGES INCLUDING COVER: 1

IF YOU DO NOT RECEIVE ALL PAGES IN GOOD ORDER,
PLEASE CONTACT US AT THE ABOVE NUMBERS.

Dear Mr. Ron Hegge, After having just spoken to my partner Lou Laferriere, we feel the need to write this letter.
We have been in the crab industry for a very long time. One partner, Paul Duffy, has been in the crab industry since 1966. Paul is a resident of Alaska and also currently on the board of directors of the Alaska Crab Coalition. Our company has one of the finest, state of the art, crab catcher/processor vessels in the industry.

We feel very strongly that the qualifying period for a crab license limitation program should mirror the FINAL MORATORIUM DATE OF JUNE 27, 1992! This date was published in the Federal Register and has been previously voted on and accepted by the North Pacific Council.

Your option #30 under the Qualifying Period (6/28/89-6/27/92) is consistent and FAIR with your previous rulings.

Everyone in this industry has been fully aware of the moratorium.

We prefer three deliveries in any federally managed fishery during the qualifying period. One delivery over three years is simply not enough. We simply request that the Council not get side-tracked by lobbying efforts to extend the qualifying period. Granting additional licenses will only jeopardize the future of the crab fisheries in the BSAI. We ask that you do the right thing not only for the legitimate participants but also for the resource itself.

Respectfully, Pro Surveyor Partnership,
Paul J. Duffy, Louis P. Laferriere

Paul J. Duffy

#1

PG#1

DAVID HILLSTRAND
BOX 1500
HOMER, ALASKA 99603
(907) 235-8706

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
ADVISORY PANEL
ALASKA DEPT. OF FISH AND GAME

It is imperative that we create a license limitation program for the crab fisheries! The reason being is that the State of Alaska will lose control of management of the crab fisheries; giving it to the Federal government!

The ADFG is the best equipped to manage the crab fishery. To loss this management would not be prudent.

I would like to propose a way to fund the general management and enforcement for the westward crab fisheries. Currently the budget is $ 2.2 million dollars per year.

I would impose a tax upon the fleet but only after a fair license limitation program is in place. The tax would be 10% in addition to the 5% ; for borough and observer fees. This would be for a two year period of time. Currently we are generating $241. million dollars per year; at 10% for two years we would create a fund of $48.2 million dollars. At 5% interest we would generate $2,410,000.00; this would support the crab management for the State of Alaska. An additional 1% added to the 3% for borough and 2% for observer fees may be needed. This would be added in the future years to the general fund to help rebuild the stocks, as well as for creating a cushion for future surveys, as well as inflation for management.

A yearly tax to generate revenue will not be a steady source of revenue for ADFG. With the fluctuations in stocks it would be better to create a general fund ~~will~~ WHILE we have the resource that is generating excellent values. The $241 million does not include the fisheries that are shut down; the Bristol Bay Red crab and the Bristol Bay Baridi east of 163 degrees.

David Hillstrand

FAX 235-4008

DAVID HILLSTRAND
BOX 1500
HOMER, ALASKA 99603
(907) 235-8706

TO HOUSE AND THE SENATE:

It is imperitive that the funding for genral management be reinstated for the crab fisheries; to escape fedral controll! This is needed until a limited entry system can be put in place. At that time a 10% tax for two years to create a genral fund; with the intrest paying for management.

David Hillstrand

#2 #1

DAVID HILLSTRAND
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(907) 235-8706

N.P.C. RICHARD LAUBER
NMFS ROLLAND SCHMITTEN
SENATORS MR. STEVENS & MR. MURSOWSKI
CONGRESS MR. DON YOUNG

LIMITED ENTRY COMPARED TO IFQ'S

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a. This allows the fleet to be prepared before each opening. Ensuring their vessels are equipped and prepared for any weather or breakdown!
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f. We ultimately choose when we fish and do not fish, no matter if others are! This year from November of 1994 - March of 1995 have been the roughest and coldest I have seen in some years. Our vessel has its limits and we know them, if you chose to exceed them you will die. The weather can pick up in a 12 hour period when your out there; you better be prepared! No running to port, your in it and you better slow down. The accidents that are happening are from those who become lazy and do not stop to chip ice, unexpericenced crews, or those who do not value their lives over money, they forget about the ones that could be left behind ! We slow down to fish another day! Thats our famous saying. Or run from the Ice to fight another day!

3. Bycatch in a LE system is solved by

a. closing areas, gear restrictions, careful returns; or by reserving a portion of the quota to be retained when a established fishery occurs; such as a trip limit of a certain species.

6. When others chose not to fish or drop out, those that remain gain access to the quota with out additional cost or debt.

7. Each permit or entity stays intact. This provides the onshore facilities the needed product, along with supplies, and repairs that are created from each vessel.

8. limited entry with a control plan to determine economic dependence will stop overcapitalization.

IFQ's help management in limiting entrants but will cause problems with inseason management; by not allowing a season to close early from the catch per unit being to low.

a. Timed openings will not be used as practical as they are now; loosing and causing additional enforcement.

b. Safety will decrease with extra time spent at sea.

c. Vessels may venture to places they have never been before, not allowing the time to return if the weather picks up. Kodiak gives a two day out look of the weather.

d. The time of year determines when the weather will be nice, which is usually in the summer. Now we will be allowed to fish from March through November in the Sablefish and Halibut fisheries. The Halibut fishery occurred in June under a timed

opening; usually the calmest time of the year. This was prudent management and helped the smaller vessels participate.
e. Rescues will not be as timely from other vessels or the USCG; because each vessel will come and go as it pleases!
f. IFQ's do not fairly allocate the resource when first implemented. A few bad years or just starting to fish with only one year of qualifying out of three. Some chose to learn new areas to fish and do not do as well; or the fish moved from last year. All of these reduce and penalize ones catch record. A word not found in the Magnuson Act.
g. IFQ's allow one to increase their catch unless one occurs debt!
h. If a IFQ holder chooses not to fish the others can not catch that % percentage of the quota! **That reminds me of the large amount of IFQ's confiscated by the IRS!**
i. IFQ's can be consolidated creating lost employment to the crew and the onshore infrastructure!
j. Bycatch is not solved; but is justified and continues to allow the gear that causes this waste to still fish! **Yes we need to change the way we fish!**
k. IFQ's do not require or ensure that all species caught with a certain gear be retained; but only when it is convenient for the catcher! They do give a vessel more time to sort and discard fish that are not desired! Hopefully with observer coverage! Probable not!

CONCLUSION:

WE THE UNDERSIGNED HAVE CONCLUDED THAT WE DO NOT WANT IFQ'S FOR THE CRAB FISHERIES. WE HAVE A SMALL BYCATCH WHICH WILL CONTINUE TO BE FINED TUNED WITH GEAR RESTRICTIONS!

WE PREFER OUR TIMED OPENINGS AND FISHING TOGETHER AS A FLEET FOR SAFETY!

#84

WE DO NOT WANT TO OCCUR DEBT IF OTHERS DROP OUT! WE CHOSE TO IMPROVE OUR CATCH BECAUSE OF OUR KNOWLEDGE AND NOT BE BUYING ADDITIONAL SHARES!

POSITION	ADDRESS	SIGNATURE
		David Hillstrand

We the undersigned petition the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL AND ADVISORY PANEL MEMBERS to eliminate all BSAI CRAB FISHERIES from any IFQ plans or proposals submitted to them.

Being directly involved in or linked to these fisheries we demand you stop any IFQ plans IMMEDIATELY. It is not needed under the current MORATORIUM. LICENSE LIMITATION plans and MANAGEMENT SYSTEM now already in PLACE.

NAME	DATE	POSITION	ADDRESS
R. Michael Fitchfield	9/6/94	Deck hand	
Andrew Hillstrand / Audrey Hillstrand		owner operator	/ Po. Box 3626 Homer,
Alan L Bain		~~Deck Hand~~ owner operator	/ Po. Box 463
JAMES BREWER		Deck Hand	/ PO Box 706 Homer AK.
EDWARD CADY		Deck Hand	PO Box 2050
Buck Angela	9/6/94	394	Crab Stake
CLARK SPARKS	9/6/94	DECK HAND	Po Box 4141 Homer AK 99603
KEVIN LENT	9/6/94	DECKHAND/MATE	92738 KNABB R
PORT ORFORD ORE 97465			
John Knight	John Knight 9-6-94	Deck Hand	P.O Box 3453 Homer AK 99603

We the undersigned petition the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL AND ADVISORY PANEL MEMBERS to eliminate all BSAI CRAB FISHERIES from any IFQ plans or proposals submitted to them.

Being directly involved in or linked to these fisheries we demand you stop any IFQ plans IMMEDIATELY. It is not needed under the current MORATORIUM, LICENSE LIMITATION plans and MANAGEMENT SYSTEM now already in PLACE.

	DATE	sign name PRINT NAME	address	position
1	9-3-94	Don Hall	POB. 3084 Homer	OWNER/Captain
2	9/3/94	Stewart Browne	POB 1404 Homer	Captain
3	9/4	Jonathan M. Hillstrand	Box 3186 Homer	OWNER-operator
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14				
15				

We the undersigned petition the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL AND ADVISORY PANEL MEMBERS to eliminate all BSAI CRAB FISHERIES from any IFQ plans or proposals submitted to them.

Being directly involved in or linked to these fisheries we demand you stop any IFQ plans IMMEDIATELY. It is not needed under the current MORATORIUM, LICENSE LIMITATION plans and MANAGEMENT SYSTEM now already in PLACE.

DATE	NAME	ADDRESS	Position
2 Sept 94	Wayne Emery	PO Box 471 Homer AK	cook - deckhand
9-3	[signature]	FV KONA-kai	Chief

ANOTHER 20 signatures crew members and skippers and owners

AGAINST

IFQs

FOR

BSAI CRAB FISHERIES

We the undersigned petition the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL AND ADVISORY PANEL MEMBERS to eliminate all BSAI CRAB FISHERIES from any IFQ plans or proposals submitted to them.

Being directly involved in or linked to these fisheries we demand you stop any IFQ plans IMMEDIATELY. It is not needed under the current ~~MORATORIUM~~ LICENSE LIMITATION plans and MANAGEMENT SYSTEM now already in PLACE.

Date	Signature	Printed name	Address	Fishery position
1.	JONNATHAN M HILLSTRAND		Box 3186 Homer AK	OWNER OPERATI
	Jonathan M. Hillstrand			
2.	Philip Twohy	Philip Twohy	Box 1842 Kod. AK	0|0
3.	David Hillstrand	DAVID HILLSTRAND	BOX 1500 HOMER AK 99603	OWNER OPERATOR
4.				
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We the undersigned petition the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL AND ADVISORY PANEL MEMBERS to eliminate all BSAI CRAB FISHERIES from any IFQ plans or proposals submitted to them.

Being directly involved in or linked to these fisheries we demand you stop any IFQ plans IMMEDIATELY. It is not needed under the current MORATORIUM. LICENSE LIMITATION plans and MANAGEMENT SYSTEM now already in PLACE.

DATE	name	ADDRESS	position
8/29/94	Mark D. Edminster	PO Box 3295 Homer Ak.	CAPTAIN
8-28-94	Phillip Neal Hellstrand	P.O Box 163 Anchorpoint AK	op. owner
8/-28/94	Wayne M Vanderburg	C PO Box 512 Anchor Point	Deck Hand
9-3-94	John J Butcher	Box 3685 East End Rd Homer, A.K.	Capt.

#3

DAVID HILLSTRAND
BOX 1500
HOMER, ALASKA 99603
(907) 235-8706

North Pacific Fishery Council
Richard Lauber

NEW ERA ALASKA INC. has done a survey through its corporation with ALASKAN INDEPENDENT CRABBERS, INC.
Autumn Pearson 235-2976

Here is the survey we sent out:

Alaskan Independent Crabbers, Inc.
Formed together for the sole purpose of preserving our resource and way of life.

The North Pacific Fishery Management Council is finalizing plans on limited entry and individual transferable quotas (IFQ's) for crab in the Berring Sea and Aleutian Islands.

We would like to hear from you. Please fill this card out and send it back so the voice of the fleet can be heard.

1.	IFQ's Individual Fishing Quotas	Yes	No
2.	Limited Entry qualifying dates Jan., 1st/1992 - Dec., 31st 1994	Yes	No
3.	Dutch Harbor Red June 25,1980 - June 25,1983		
4.	Pribilof blue June 25, 1985 - June 25, 1988	Yes	No

The results are as follows out of 600 questionnaires ~~returned~~ sent out 225 returned

1. 110 are against IFQ's
a. 81 want current dates
b. 13 want Historic dates
c. 16 want open access

2. 55 want IFQ's
a. Out of those 41 wanted current dates
b. 14 want 1989-1992

3. 14 Returned incomplete

4. 46 returned because of no fowarding address.

David Nilsthand

NAMES - COLLECTED FROM: STATE OF ALASKA COMMERCIAL ENTRY COMMISSION.

LIST NO. 1

All parties named below voted "No" on ITQs

Out of 110 total -- 13 want 6/28/89 - 6/27/92
6/29/80 - 6/25/83 DH Red
6/29/85 - 6/25/88 Prib Blue

81 want current participation

16 want free enterprise

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1. J. Porter O'Hara - Box 3132, Homer, AK 99603 (Susitna)
2. Amatuli Ent. - 3600 15th Ave. W #202, Seattle, WA 98119 (Amatuli)
3. Fred Yeck - Box 352, Newport, OR 97365 (Seadawn)
4. Ludger Dochtermann - Box 714, Kodiak, AK 99615 (Belair)
5. Autumn Dawn Part. - 3600 15th Ave. W. #202, Seattle, WA 98119 (Autumn Dawn)
6. Timothy Kennedy - 5407 Village Park Dr., Bellevue, WA 98006 (Secret Island)
7. Jeff Steele - Box 1732, Kodiak, AK 99615 (Obsession)
8. Walter Mezich - 3233 Lake Park Circle, Anchorage, AK 99517 (Nowitna)
9. Viking Boat Co., Inc. - 3801 14th Ave. W., Seattle, WA 98119 (Western Viking)
10. James Niemela - Box 2382, Homer, AK 99603 (Norquest)
11. Steve Rienhart - Box 1717, Homer, AK 99603 (Anna Marie)
12. Olav Larsen - 6513 24th Ave NW, Seattle, WA 98117 (Adventure)
13. Ian Pitzman - 1611 Early View Drive, Anchorage, AK 99504 (F/V Ferrar Sea)
14. David Harris - 13017 44th St. NE, Lake Stevens, WA 98258 (Botany Bay)
15. Terry Millbrooke - Box 1062, Kodiak, AK 99615 (Rougue)
16. Philip Twohy - Box 1842, Kodiak, AK 99615 (Polestar)
17. Beauty Bay AK. Corp. - Box 130, Homer, AK 99603 (Beauty Bay)
18. Rick Mezich - 3600 15th Ave. W #202, Seattle, WA 98119 (Fierce Allegiance)
19. Lady Blackie, Inc. - Box 959, Homer, AK 99603 (Lady Blackie)
20. Kevin Suydam - Box 980, Kodiak, AK 99615 (Lady Aleutian)
21. Siberians Sea Part. - 3859 Yaquina Bay Rd., Newport, OR 97365 (Siberian Sea)
22. Andrew Hillstrand - Box 3626, Homer, AK 99603 (Time Bandit)
23. Robert Wood - Box 1728, Kodiak, AK 99615 (Shelikof)
24. Jelmer McNabb - Box 633, Pineville, OR 97754 (Golden Pride)

6. Aleutian Ballad, Inc. - Box 892, Chehalis, WA 98532 (Aleutian Ballad)
26. Robert Wood - Box 1728, Kodiak, AK 99615 (Ocean Tempest)
27. John W. Hillstrand - Box 674, Homer, AK 99603 (Time Bandit)
28. Rosie G/Part. - Box 17012, Seattle, WA 98107 (Rosie G)
29. John Clausen - 23118 23rd DR NW, Arlington, WA 98223 (Aleutian Rover)
30. Charles Rehder - No address given - (F/V Kustatan)
31. Marcy J, Inc. - 1217 Kouskov St., Kodiak, AK 99615 (Marcy J)
32. David Hillstrand - Box 1500, Homer, AK 99603 (Time Bandit)
33. Jelmer McNabb - Box 683, Pineville, OR 97754 (Golden Pisces)
34. AMU InterFish, Inc. - 13047 12th NW, Seattle, WA 98177 (Bristol Storm)
35. Anita J. Fisheries, Inc. - 1217 Kouskov, Kodiak, AK 99615 (Anita J)
36. Mike Tolva - P.O. Box _____, Homer, AK 99603 (Ferrar Sea)
37. David Mathison - Box 3316, Kodiak, AK 99615 (Moriah)
38. Blue No. Fisheries, Inc. - (No address given) (Sultan)
39. Michael Goad - 910 District Line Rd., Burlington, WA 98233 (Lady Selket)
40. Nor/Am Fishing - 173 N. Welcome Slough, Cathlamet, WA 98612 (Brittany)
41. Dennis Deaver - 1223 Parkway Dr., Richmond, CA 94803 (Pacific Sun)
42. Michael Jones - 1917 N. Bear Crk. Rd., Seal Rock, OR 97376 (Guardian)
3. Timothy Cosgrove - 14007 SE 45th Crt., Bellevue, WA 98086 (Vesteraalen)
44. Kim Boddy - Box 99071, Seattle, WA 98199 (Sea Producer)
45. Ronald Lively - Box 3242, Kodiak, AK 99615 (Providence)
46. Johnathan Hillstrand - Box 3186, Homer, AK 99603 (Time Bandit)
47. Robert Wood - Box 1728, Kodiak, AK 99615 (Magnum)
48. Oregon Seafood Prod. - 3859 Yaquina Bay Road, Newport, OR 97365 (Alaska Trojan)
49. Kiska Sea Part. - 3859 Yaquina Bay Road, Newport, OR 97365 (Kiska Sea)
50. Kevin Suydam - Box 980, Kodiak, AK 99615 (Lady Kodiak)
51. Michael Fox - 9201 24th Ave. NW, Seattle, WA 98117 (Island Mist)
52. David Loebsack - 941 Rd C NW, Waterville, WA 98858 (Karin Lynn)
53. Richard Shelford - 2129 143rd PL SE, Mill Creek, WA 98012 (Aleutian Lady)
54. Samish Maritime, Inc. - 75-5680 Kuakini Hwy #106, Kailua, HI 96740 (Rebel)
55. Stan Ellis - Box 1092, Kodiak, AK 99615 (Viekoda Bay)
56. Brad Warren - 1593 Dunbar, Mt. Vernon, WA 98273 (Debra D)
57. Brad Lewis - Box 2009, Kodiak, AK 99615 (Marcy J)

58. Raymond Bellamy - 60080 Skyline Drive, Homer, AK 99603 (Kustatan)
59. Raymond Bellamy - 60080 Skyline Drive, Homer, AK 99603 (Farrar Sea)
60. Ronald Frels - Box 3353, Kodiak, AK 99615 (High Spirit)
61. Ronald Tennison - Box 2206, Kodiak, AK 99615 (Destiny)
62. William Renfro - 173 N Welcome Slew Rd., Cathlamet, WA 98612 (Brittany)
63. Robin Bellamy - 1101 Cordova St. #121, Anchorage, AK 99501 (Northern Belle)
64. Kevin Suydam - Box 980, Kodiak, AK 99615 (Lady Alaska)
65. Samish Maritime, Inc. - 75-5680 Kuakini Hwy #106, Kailua, HI 96740 (Renegade)
66. David Lethin, Box 892, Chehalis, WA 98532 (Ocean Ballad)
67. Ocean Ballad, Inc. - Box 892, Chehalis, WA 98532 (Ocean Ballad)
68. Icy Bay, Inc. - 2629 NW 54th St., Seattle, WA 98107 (Icy Bay)
69. Tempest Fisheries, Inc. - 1130 NW 45th St., Seattle, WA 98107 (Tempest)
70. Andy Hillstrand - Box 3626, Homer, AK 99603 (Time Bandit)
71. Michael Wilken - 1718 Selief Ln., Kodiak, AK 99615 (Pacific Mist)
72. Jay Hebert - Box 2336, Ferndale, WA 98248 (Southern Wind)
73. No. Am. Joint Ventures - 2320 NW 96th, Seattle, WA 98117 (North American)
74. Kenneth Simpson - Box 240449, Anchorage, AK 99524 (Lady Simpson)
75. The Spray Group - 3228 Magnolia Blvd., Seattle, WA 98199 (Aleutian Spray)
76. Robert Carlton - 16220 224th Ave. NE, Woodinville, WA 98072 (Ocean Olympic)
77. William Prout - Box 8809, Kodiak, AK 99615 (Lady Kodiak)
78. Sea Venture Part. - 3228 Magnolia Blvd. W., Seattle, WA 98199 (Sea Venture)
79. Donald Hall - Box 3084, Homer, AK 99603 (Lady Blackie)
80. Kenneth Simpson - Box 240449, Anchorage, AK 99524 (Lady Simpson)
81. Mar Del Sud, Ltd. - Box 1573, Kodiak, AK 99615 (Mar Del Sud)
82. Michael Simpson - 9331 W. Kanaga, Eagle River, AK 99577 (Lady Simpson)
83. Kale Garcia - 17640 SE 295th St., Kent, WA 98042 (Auriga)
84. Scott Adams - (No address given), (Kustatan)
85. Lee Shelford - 15508 Country Club Drive, Mill Creek, WA 98012 (Kodiak Queen)
86. Danny Ertsgaard - Box 797, Pineville, OR 97754 (Melanie)
87. Charles King - Box 1573, Kodiak, AK 99615 (Mar Del Sud)
88. Jan Medhaug - 1328 NW 201 St., Seattle, WA 98177 (Silver Wave)
89. Alan Lauritzen - 24129 95th Pl., Edmonds, WA 98020 (Bering Star)
90. Jeff Hochstein - 5425 Peninsula Dr. SW, Olympia, WA 98513 (Pacific Sun)
91. Nordic Marine, Inc. - 200 W 34th #981, Anchorage, AK 99503 (Last Frontier)
92. James Brisco - Box 310, Sheridan, TX 77475 (Beauty Bay)

93. Paul Mutch - 200 W. 34th #981, Anchorage, AK 99503 (Last Frontier)
94. Jens Fjortoft - 4520 146th Pl. SW, Lynnwood, WA 98037 (West Point)
95. Norman Lenon - 1218 Madsen Ave., Kodiak, AK 99615 (Lady Jessie)
96. Timothy Deplazes - Box 2923, Kodiak, AK 99615 (Ice Lander)
97. Charles Dye - 34930 30th Ave S, Federal Way, WA 98003 (Secret Island)
98. Jim Brady - 1143 NW 45th St., Seattle, WA 98107 (Arctic Sea)
99. William Wichrowski - 27409 226th Ave. SE, Maple Valley, WA 98030 (Zone Five)
100. Charles Keim - HC 67 Box 1263, Anchor Point, AK 99556 (Tony B)
101. William Swimelar - 17210 105th Ave NE, Bothell, WA 98011 (Farwest Leader)
102. Jonas Jakobsen - 1023 C Ave., Edmonds, WA 98020 (Grizzly)
103. Douglas Roadruck - 1812 214th St SW, Lynnwood, WA 98036 (Bountiful)
104. Richard Quanshnik - 790 SE 13th St., Warrenton, OR 97146 (Maverick)
105. Ronald Briggs - 1548 Wagon Rd., Toledo, OR 97391 (Trail Blazer)
106. James Stone - 7216 Interlaaken Dr. SW, Tacoma, WA 98499 (Retriver)
107. Soren Sorensen - 1805 Village Grn. Dr. #1, Millcreek, WA 98012 (Airedale)
108. Wayne Baker - 1860 NE Cliff Dr., Bend, OR 97701 (Trail Blazer)
109. Sigmund Andreassen - 101 Nickerson 340, Seattle, WA 98109 (Silent Lady)
110. Charles Hosmer - 1925 E. Shore Ave., Freeland, WA 98249 (Baranof)

LIST NO. 2

All parties named below voted "Yes" to ITQs

Of the 55 - 41 voted yes but want current participation dates:
January 1, 1992 - December 1, 1994
14 want other dates 1989 - 1992

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1. Spencer Bronson - 18202 Bellflower Rd., Bothell, WA 98012 (Husky)
2. Mike Nyberg - Box 1043, Petersburg, AK 99833 (Theresa Marie)
3. Lady Jessie Group - 15209 72nd Ave. NE, Bothell, WA 98011 (Lady Jessie)
4. Vidar Luung - 1968 Thorndyke Ave. W, Seattle, WA (No zip) (?)
5. Kenneth E. Humlick - 11717 Meridian Pl. SE , Lake Stevens, WA 98258 (Keta, Shellfish)
6. John Seville - 1910 E. Viewmount Dr., Mt. Vernon, WA 98273 (North Pacific)
7. Pacific Star, Inc. - 3825 14th Ave. W, Seattle, WA 98119 (Pacific Star)
8. Port Lynch, Inc. - 6920 Roosevelt Way NE, Seattle, WA 98115 (Tanya Rose)
9. Ballyhoo & Owners - 4025 21st Ave. W, Seattle, WA 98119 (Ballyhoo)
10. Scandies Ltd. PS - 627 NW 51st St., Seattle, WA 99107 (Scandies Rose)
11. Stephen Berets - 819 Harvest Dr., Tumwater, WA 98501 (Golden Dawn)
12. Mark Donovick - 2205 Eldridge Ave., Bellingham, WA 98022 (Cape Devine)
13. Kenneth Hendricks - 2338 N 186th, Seattle, WA 98133 (Sea Star)
14. Bruce Joyce - 1314 NW 175th, Seattle, WA 98177 (Kristen Gail)
15. Lady June Fish Co., Inc. - 8208 19th Ave NE, Seattle, WA 98115 (Lady June)
16. Pavlof, Inc. - 4025 21st Ave West, Seattle, WA 98199 (Pavlof)
17. Shishaldin Boat Co. - 4025 21st Ave West, Seattle, WA 98199 (Shishaldin)
18. Christopher Jones - 1410 Dan Kelly Rd., Port Angeles, WA 98362 (Anita J)
19. Nick Kelly - 3201 Upland Ave., Everett, WA 98203 (Ocean Tempist)
20. Willard Ferris - Box 1641, Kodiak, AK 99615 (Seabrooke)
21. William Williams - 720 11th St. B-1, Bellingham, WA 98225 (Magnum)
22. Joseph Wabey - 1600 NW 198th, Seattle, WA 98177 (Arctic Eagle)
23. Michael Lynch - 6920 Roosevelt Way M327, Seattle, WA 98115 (Tanya Rose)
24. Vidar Stubberud - Box 652, Unalaska, AK 99685 (Cape Devine)
25. Jerry Wollen - 176 Mauerman Rd. N, Chehalis, WA 98532 (Royal Pacific)
26. Richard Newby - 2510 Aspen Dr., Anchorage, AK 99517 (Red Baron)
27. Ronald Painter - Box 3065, Kodiak, AK 99615 (Katrina Em)
28. SW Fish & R Moore - 8005 SE 28th St #200, Mercer Is., WA 98040 (Sea Wind)
29. North Command, Inc. - 999 3rd Ave. 30th FL, Seattle, WA 98104 (North Command)
30. San Michelle, Inc. - 4225 23rd Ave. W, Seattle, WA 98199 (San Michelle)
31. Sjovind Fisheries Joint V - 8005 SE 28th St. #200, Mercer Is., WA 98040 (Sjovind)
32. Geoffrey Bowser - 3218 NW Esplanade, Seattle, WA 98117 (Northern Orion)

. Mark Johnston - 31003 230th PL SE, Kent, WA 98012 (Westward Wind)
34. Joseph Dragseth - 36725 Chinulna Dr., Kenai, AK 99611 (Gulf Winds)
35. Michael Hendel - Box 1804, Kodiak, AK 99615 (Sea Venture)
36. Charles Velasco - 27421 227th SE PL, Maple Valley, WA 98038 (Deep Sea Harvest)
37. Robert Miller - 3214 W. McGraw #300, Seattle, WA 98199 (Northern Cascade)
38. Robert Haerling - Box 339, North Powder, OR 97867 (Confidence)
39. Aleut. Mariner & Owners - 250 NW 39th #8, Seattle, WA 98107 (Aleutian Mariner)
40. Steuart Fish., Inc. - 18798 Ridgefield Rd. NW, Seattle, WA 98177 (Half Moon Bay)
41. Steuart Fish., Inc. - 18798 Ridgefield Rd. NW, Seattle, WA 98177 (Sunset Bay)
42. No. Pacific Ent. - Box 17389, Seattle, WA 98107 (North Pacific)
43. Pacific Mariner & Owner - 250 NW 39th #8, Seattle, WA 98107 (Pacific Mariner)
44. Northwest Mariner - 250 NW 39th #8, Seattle, WA 98107 (Northwest Mariner)
45. Paul Kristensen - 4074 W Antler Ave., Redmond, OR 97756 (Barbara J)
46. Dale Dorsey - Box 105, Unalaska, AK 99685 (Tiffany)
47. Stanley Hovik - 1103 12th Ave. No., Edmond, WA 98020 (Ocean Fury)
48. Randolf Hutchins - 18013 73rd W., Edmond, WA 98020 (Entrance Point)
49. Robert Tremain - Box 746, Kailua Kona, HI 96745 (Lady Alaska)
50. Frank Tegdal - 13813 65th Ave. W #2, Edmonds, WA 98026 (Endurance)
. Gordon Kristjanson - 20301 191st Ave NE, Woodinville, WA 98072 (Aleutian Mariner)
52. Clarence Helgevold - Box 126, Unalaska, AK 99685 (Arctic Dawn)
53. Alan Baur - Box 1754, Bothell, WA 98041 (Half Moon Bay)
54. Ronald Loyd - 8419 Point No. Point Rd., Hansville, WA 98340 (Pacific Mariner)
55. Arctic Mariner & Owner - 250 NW 39th #8, Seattle, WA 98107 (Arctic Mariner)

LIST NO. 3

List Incomplete/Didn't state either the years or whether they wanted ITQs or not

1. Gene Watson - 480 Hyacinth, Manson, WA 98831 (Norseman)
2. Elmer Shehaug - 3412 Glacier Peak Ave., Everett, WA 98208 (Northwind)
3. Paul Poulsen - 1143 NW 45th ST, Seattle, WA 98107 (Bering Sea)
4. Caprice, Inc. - 2105 135th Pl. SE, Bellevue, WA 98005 (Caprice) (Denali) (Entrance Point)
5. Alsea Fisheries - 5349 229th Ave SE, Issaquah, WA 98027 (Alsea)
6. F/V Northwind, Inc. - 2602 39th W., Seattle, WA 98199 (Auriga)
7. Larry Hendricks - Box 99367, Seattle, WA 98199 (Sea Star)
8. Robin Bearden - 11716 77th Ave. Ct. SW, Tacoma, WA 98498 (Alaskan Enterprise)
9. Gregory Meyer - Box 135, Cordova, AK 99574 (Snug Harbor)
10. Magne Nes - Box 79021, Seattle, WA No Zip (Shilshole?)
11. Aleutian #1 & Owners - 101 Nickerson St. #340, Seattle, WA 98109 (Aleutian #1)
12. Marvin Dragseth - Box 224, Kenai, AK 99611 (Gulf Winds)
13. George Walters - 6458 NE 186th St., Seattle, WA 98155 (North Pacific)
14. Trident Seafoods Corp., 5303 Shilshole Ave. NW, Seattle, WA 98107 (Barbara J)

LIST NO. 4

All returned/Not Valid or No Forwarding Address:

1. David Malmgren - 11527 6th N.W., Seattle WA 98177 (Constellation)
2. American Star & Owners - 1200 Westlake AVE. N., Seattle, WA 98109 (American Star)
3. Bjorn Nymark - 1136 Vista PL, Edmonds, WA 98020 (Sea Rover)
4. Philip Harris - 16400 NE 180th St., Woodinville, WA 98072 (Cornelia Marie)
5. Kenneth Ostebo - Box 466, Dutch Harbor, AK 99692 (Platonida)
6. Paramount J/V - Box 17012, Seattle, WA 98107 (Paramount)
7. Boggs/Kim Hansen Ent. - 5305 Shilshole AV NW 200, Seattle, WA 98107 (Karila Faye)
8. Boggs & Hastings Ent. - 5305 Shilshole AV NW 200, Seattle, WA 98107 (Karin Lynn)
9. Even Thorsen - 636 NW 185 Apt 5C, Seattle, WA 98177 (US Dominator)
10. Sten Skaar - 1156 N 198th, Seattle, WA 98117 (North American)
11. Kurt Ochsner - 4724 164th St SW, Lynnwood, WA 98037 (Karla Fay)
12. Jon Jorgenson - 303 E 30th, Bremerton, WA 98310 (Zolotoi)
13. Tex Showalter - Box 251, Port Lions, AK 99550 (Karin Lynn)
14. Helga Vea - 23317 Cedar Way L-105, Mount Lake, Terrace, WA 98043 (Royal Viking)
15. Provider, Inc. - Box 1281, Kodiak, AK 99615 (Provider)
    Rainier Investments - 605 12th Ave N., Edmonds, WA 98020 (Rainier)
17. Erling Bendiksen - 4005 20th Ave W #116, Seattle, WA 98199-1295 (Silver Wave)
18. Harold Rice - 606 N 178th, Seattle, WA 98133 (Bering Star)
19. Cannon Lloyd - Box 585, Kodiak, AK 99615 (Juno)
20. Olav Austneberg - 940 Viewmoor Pl., Edmonds, WA 98020 (Royal American)
21. Kona Fisheries - 4055 21st Ave. W., Seattle, WA 98199 (Sitkin Island)
22. Star Fish Group - 4039 21st Ave. W. #401, Seattle, WA 98199 (Star Fish)
23. Karl Nelson - 103 W. Hemlock Way, Sequim, WA 98382 (Bristol Storm)
24. Timothy Gerding - Box 56, Kodiak, AK 99615 (Alsea)
25. James Garbrick - 3116 NW 95th, Seattle, WA 98117 (Mark I)
26. Tor Ferkingstad - 12550 Greenwood No. 206, Seattle, WA 98133 (Lady Jessie)
27. Sea Fisher Fisheries - 4055 21st Ave. NW, Seattle, WA 98199 (Sea Fisher)
28. Gary Howell - 12108 8th Ave W., Everett, WA (948024?) (Andronica)
29. Stein Nyhammer - 261 4th Ave S., Edmonds, WA 98020 (Rollo)

30. Tom Hamner - Box 1601, Cordova, AK 99574 (Spartan)
31. Terrence Greenawald - 1544 NW Nye St., Newport, OR 97365 (Silver Spray)
32. Dan Jansen - 5302 104th St SW, Mukilteo, WA 98275 (Icy Bay)
33. Edward Jackson - Box 142, King Cove, AK 99612 (Tuxedni)
34. Michael McFadden - 101 Nickerson St. #340, Seattle, WA 98109 (Endurance)
35. Rick Mezich - 3600 15th Ave. W #202, Seattle, WA 98119 (Fierce Contender)
36. Nyhammer Svino Ent. - 16905 13th Ave NW, Seattle, WA 98177 (Rollo)
37. Peter Liske - 2718 B Ave., Anaortes, WA 98221 (Amatuli)
38. Ronald Zwahlen - Box 3128, Kodiak, AK 99615 (Alaska Spirit)
39. Henry Litzinger - Box 992, Kodiak, AK 99615 (American Way)
40. Endurance Corp. - 101 Nickerson St. 340, Seattle, WA 98109 (Endurance)
41. Retriever Co-Owners - Box C5030 Univ. Sta., Seattle, WA 98105 (Retriever)
42. Rondys - Box 37, Kodiak, AK 99615 (Rondys)
43. Prof. Fisherman's Ass. - Box 669, Bellingham, WA 98227 (Stormy Sea)
44. Alf Forde - 17124 17 West, Lynnwood, WA 98037 (Royal Pacific)
45. Glenn Jahnke - 1207 212th Ave. NE, Seattle, WA (Sitkin Island)
46. Isafjord Fish Co. - Box 99216, Seattle, WA 98199-0216 (Isafjoyd)

#4 STABILITY

DAVID HILLSTRAND
BOX 1500
HOMER, ALASKA 99603
(907) 235-8706

N.P.C. **RICHARD LAUBER**
NMFS **ROLLAND SCHMITTEN**
SENATORS **MR. STEVENS & MR. MURSOWSKI**
CONGRESS **MR. DON YOUNG**

If the NPC feels we need IFQ's than postpone them for a three to twelve year period after a limited entry system is in place and all other restrictions and management tools are applied and used to reduce bycatch, and overcapitalization.

Rolland Schmitten has said IFQ's will work for some fisheries but not for others. This was during his visit Alaska in 1994. I would like to thank him for proceeding with caution. Mr. Schmitten what would your father and your brother in the Salmon troll and seine fisheries have to say if IFQ's were done instead of limited entry? Or all the other salmon permit holders?

Jim Seger of the Pacific Fisheries Management Council is proceeding slowly with IFQ's; he should be highly commended! He and others on the council were " still unsure about how a ITQ plan could be fairly implemented". They were waiting for the Magnuson Act to be amended! Hopefully it will be done by our Senators and Congressmen in Fairness! Why did the NPC not wait?

Here is an excerpt of the Pacific Fishing magazine; Dec. 1994. Where a high ranking NMFS official and Steven Shapiro the editor have a conversation #1.

Why should we have to spend our money to influence and fight for what is fair and equitable to all? Should not the laws that we

have ensure this? Or why should others spend money to influence it to go their way **at the cost to others**?

Why the law suit against IFQ's? Why the overwhelming pubiic testimony against IFQ's?

The NPC implemented its IFQ plan that reduced current participants of one or two year by being divided by three years. This reduced and penalized ones current catch!

The NPC failed to use a range of years where all participates current and historical had consistence landings! They are suppose to be a group of people who have the knowledge and wisdom to administer a system that is fair. Their knowledge should have included other ITQ and IVQ systems; such as in Canada.

The Canadian IVQ system was not put in place until 1991. Prior to that they had a Limited Entry system for twelve years 1979. #1 University of Alaska of Alaska.

The Canadian government created a stable environment first through a limited entry system!

A IFQ system that is put in place prior to creating a stable fleet causes even further instability and unfair allocations!

David Hillstrand
DAVID HILLSTRAND

STATE OF ALASKA: KURT SCHELLE
SUMMARY: MOST FISHERIES HARD A L.E. sipter PRIOR to IFQS.

STATE OF ALASKA

COMMERCIAL FISHERIES ENTRY COMMISSION

TONY KNOWLES, GOVERNOR

8800 GLACIER HWY, #109
JUNEAU, AK 99801
(907) 789-6150 Licensing Calls
(907) 789-6160 Other Business
(907) 789-6170 FAX

April 13, 1995

David Hillstrand
Box 1500
Homer, AK 99603

Dear Mr. Hillstrand:

In response to your phone call last week, Kurt Schelle has asked me to send you copies of several CFEC publications dealing with individual fisherman's quotas. He also asked me to summarize the information on limited entry and individual quota program start dates contained in those publications.

I am enclosing copies of the following three publications:

New Zealand's ITQ Program (CFEC 88-3),

Individual Fisherman's Quotas: A Preliminary Review of Some Recent Programs (CFEC 89-1), and

Survey of Individual Quota Programs (CFEC 91-7).

I hope these will be helpful.

I have checked these reports to find out when individual quotas were introduced into the different fisheries, whether or not individual quotas were preceded by limited entry programs, and the dates on which any limited entry programs were introduced. I did not look beyond these three reports and am only summarizing the information I was able to find in them. The main source used for each fishery is identified by its CFEC report number in parentheses.

I note where a description of a program does not mention of limited entry. The absence of a reference does not mean that there was no limitation. Discussions of limited entry are more frequent in the more detailed case studies in CFEC 88-3 and in CFEC 89-1. They are less frequent in the less detailed studies in CFEC 91-7.

New Zealand (88-3, pages 3-5)

A rock lobster permit moratorium was introduced in 1978. The moratorium was extended to inshore vessel permits in 1982. During 1983-84 efforts were made to eliminate many part time fishermen. Individual quotas were introduced in the deep water fishery in 1983 (I can't tell if entry into the deep water fishery was limited prior to the individual quotas), and in the inshore fisheries in 1986.

Bay of Fundy herring (89-1, pages 3, 10)

Limited entry was introduced in the early 1970s. Individual quotas were started in 1976. The individual quota program was substantially revised in 1983.

Atlantic Canada Offshore Groundfish (89-1, pages 15-16)

Vessel limited entry was introduced in the early seventies. Vessel individual quotas were introduced in 1982.

Atlantic shellfish fisheries (91-7, page 14)

The reports contain no information on limited entry in these fisheries. Individual quotas were introduced in offshore scallops in 1986, offshore surf clams in 1987, offshore lobsters in 1988, Gulf of St. Lawrence shrimp in 1991, Cape Breton inshore opilio in 1979, Quebec inshore opilio in 1990, and Gulf of St. Lawrence midshore opilio in 1990.

Newfoundland inshore cod (89-1, page 23-24)

There was a pre-existing otter trawl limited entry program. In 1982 new entrants were allowed into the otter trawl fishery, notwithstanding the limited entry program. The individual quota program was started in 1984.

Other Gulf of St. Lawrence groundfish (91-7, pages 9-11)

Individual quota programs were started in cod and plaice fisheries in the southern Gulf of St. Lawrence in 1989 and in a small cod fishery in the Gulf in 1991. The report does not discuss pre-existing limited entry programs.

Ontario (89-1, pages 32-33)

There were preexisting "limits on commercial fishing licenses." There were also local individual quota programs before the extension of the program province-wide in 1984.

Iceland groundfish (89-1, page 48)

There is no mention in the report of a limited entry program before individual quotas were introduced in 1984. Entry was free at least as late as 1982, possibly later.

Other Icelandic fisheries (91-7, page 21)

Herring was under individual quotas as early as 1976, and most other fisheries are now under individual quotas. The report does not have any information on limited entry.

Wisconsin Lake Superior Lake Trout (89-1, page 59)

Limited entry was introduced in 1968. Individual quotas were introduced in 1971.

Wisconsin Green Bay yellow perch (89-1, pages 65-66; 91-7, page 3)

91-7 implies that there was limited entry before the individual quotas were introduced. Individual quotas were introduced for Green Bay yellow perch in 1983.

Wisconsin Lake Michigan chub (89-1, pages 71-72; 91-7, page 3)

91-7 implies that there was limited entry before individual quotas were started in 1983.

Other Wisconsin fisheries (91-7, page 3)

In 1989 individual quotas were brought in for yellow perch in Lake Michigan, menominees in Green Bay and Lake Michigan, and whitefish on Green Bay and Lake Michigan. The report implies that limited entry was in place prior to the programs. There appear to have been 21 permits to fish on Lake Superior, and 127 to fish on Lake Michigan.

Australian Southern Bluefin Tuna (89-1, page 78)

Individual quotas were introduced in 1984. There was limited entry in the fishery before then.

South Australian abalone (89-1, page 87)

There was limited entry before individual quotas were started in 1985.

Australian Southeast Trawl (91-7, page 26)

Individual quotas were started for gemfish in 1989 and extended to other species about 1991. There is no mention of a previous limited entry program in the report.

Tasmanian abalone (91-7, page 27)

Individual quotas appear to have been introduced in 1984. They were preceded by a limited entry program.

Western Australia pearl oysters (91-7, page 28)

A moratorium on new licenses and individual quotas were brought in together in 1982.

Mid-Atlantic surf clams and ocean quahogs (91-7, page 1)

A license moratorium was imposed in 1977 and individual quotas were started in 1990.

San Francisco herring seine and lampara net (91-7, pages 4-5)

Individual quotas were started in the 82-83 season. Previous status of limited entry is unclear from the report.

Yaquina Bay herring (91-7, page 5)

Individual quotas were started in 1989. A previous limited entry program is implied by the report.

Sitka herring sac roe (91-7, page 6)

There have been sporadic one year individual quota or cooperative fishing agreements in this fishery, which is under limited entry.

Manitoba (91-7, page 15)

This fishery was closed for two years before individual quotas were started. Individual quotas and limited entry were brought in together in 1972.

British Columbia abalone (91-7, page 18)

Individual quotas were brought in in 1979. The report mentions a pre-existing

limited entry program.

B.C. geoducks (91-7, page 18)

Individual quotas were started in 1989. There was a limited entry program before they were started.

B.C. black cod (91-7, page 19)

Individual quotas were started in 1990. There was a limited entry program before they were started.

B.C. halibut (91-7, page 20)

Individual quotas were started in 1991. There was a limited entry program before they were started.

I hope this information is helpful.

Best regards,

Ben Muse

Ben Muse
Economist

cc. Kurt Schelle

Fishing to Proceed With Limited Entry

A. 1. Pollock
2. Bristol Bay Red Crab
3. Bristol Bay & Bering Sea Baridi
4. Bristol Bay & Bering Sea Opilio
5. Norton Sound Red
6. St. Mathew Blue
7. Pribilof Island Blue & Red Crab; by catch
8. Adak Bed Crab
9. Adak Brown Crab
10. Wet in Aleutian Baridi Crab
11. Dutch Harbor Brown Crab
12. Eastern Aleutian Baridi Crab
13. Tanneri - Bering Sea, East and West Aleutian Islands
14. Scallops

B. **Limited Entry with a point system to determine economic dependence.**

Pollock

	Req	Fished	Total Landings
1. 3 landings in the moritorium 6/28/89 - 6/27/92			
2. 2 landings 1992	?	?	
3. 2 landings 1993	?	?	
4. 2 landings 1994	?	?	
3. Total landing			9
4. Total vessels			

Bristol Bay Red Crab

	Reg	Fished	Total Landings
1. 3 landings in Red, Baridi or Opilio during 6/28/89-6/27/92			
2. 1 landing 1992	281		
3. 1 landing 1993	292		
4. Closed 1994	0		
3. Total landing			5
4. Total vessels			281

A. 319 vessels created with 3 landings in 6/28/89 - 6/27/92.

Bristol Bay & Bering Sea Baridi

	Reg	Fished	Total Landings
1. 3 landings in Red Baridi or Opilio 6/89 - 6/92			
2. 1 landing 1992	285	?	
3. 1 landing 1993	294	?	
4. 1 landing 1994	186	?	
5. Total landing			6
6. Total vessels			

A. 318 vessels created with 3 landings in 6/28/89 - 6/27/92

B. 281 vessels in Bristol Bay Red Crab would be able to harvest Baridi as by catch in the November 1st opening. This has solved by catch and reduced expense as well as time spent at sea.

Bristol Bay & Bering Sea Opilio

	Reg	Fished	Total Landings
1. 3 landings in Red, Baridi or Opilio 6/89 - 6/92			
2. 2 landings 1992	250	?	
3. 2 landings 1993	254	?	
4. 2 landings 1994	255	?	
5. Total landing			9
6. Total vessels			

A. 279 vessels created with 3 landings in 6/28/89 - 6/27/92.

Norton Sound Red Crab

	Reg	Fished	Total Landings
1. 1 landing 1993	23	?	
2. 1 landing 1994	36	?	
3. Total landing			1
4. Goes to permit holder			
5. No vessel can receive 2 permits			
6. Total vessels			

A. 60 vessels created with 1 landing in either year.

St. Mathew Blue

	Req	Fished	Total Landings
1. 1 landing 1993	92	92	
2. 1 landing 1994	80	80	
3. Total landing			2
4. Total vessels			

A. 90 vessels created with 3 landings in 6/28/89 - 6/27/92.

Pribolof Blue & Red one permit mixed fisheries with Red Crab by catch.

	Reg	Fished	Total Landings
1. 1 landings 1993	112	?	
2. 1 landings 1994	113	?	
3. Total landing			2
4. Except 1 landing for vessels 58' and less in 1993or 1994			
5. Total vessels			

A. 166 vessels created with 3 landings in 6/28/89 - 6/27/92

Adak Red Crab

	Reg	Fished	Total Landings
1. 2 landings 1992	12	12	
2. 2 landings 1993	14	12	
3. 2 landings 1994	29	20	
4. Total landing			6
5. Total vessels			12

A. 14 vessels created with 3 landings in 6/28/89 - 6/27/92.

Adak Brown Crab

	Reg	Fished	Total Landings
1. 2 landings 1992	18	?	
2. 2 landings 1993	12	?	
3. 2 landings 1994	19	?	
4. Total landing			6
5. Total vessels			12

A. 32 vessels created with 3 landings in 6/28/89 - 6/27/92.

Western Aleutian Baridi

1. To be given to all vessels who qualify for Adak Red and Brown for by catch purposes.

Adak Brown Crab

	Reg	Fished	Total Landings
1. 2 landings 1992	18	?	
2. 2 landings 1993	12	?	
3. 2 landings 1994	19	?	
4. Total landing			6
5. Total vessels			12

A. 32 vessels created with 3 landings in 6/28/89 - 6/27/92.

Scallops

Area Bering Sea Aleutian Islands

	Vessels	Landing	Total Landings
1. 2 landings 1991	Confidential		
2. 2 landings 1992	Confidential		
3. 2 landings 1993	10	38	
4. Total landing			6
5. Total vessels			3

A. Confidential less than 3

B. Area's need to be closed due to high by catch most fishing occurred in 5 statistical area's North West of Unimak Island in Bristol Bay. Determine highest by catch area's and close them down. This is Prime Tanner Crab grounds.

Eastern Aleutian Baridi

	Reg	Fished	Total Landings
1. 1 landing 1992	6	6	
2. 1 landing 1993	7	7	
3. 1 landing 1994	10	8	
3. Total landing			1
4. Total vessels			8

Deep Sea Tarneri

Bering Sea

	Reg	Fished	Total Landings
1. 1 landing 1993	6	6	
2. 1 landing 1994	4	4	
3. Total landing			1
4. Total vessels			6

East Aleutian

	Reg	Fished	Total Landings
1. 1 landing 1993	1	1	
2. 1 landing 1994	3	3	
3. Total landing			1
4. Total vessels			3

West Aleutian

	Reg	Fished	Total Landings
1. 1 landing 1993			
2. 1 landing 1994	6	2	
3. Total landing			1
4. Total vessels			2

Dutch Harbor Brown

	Req	Fished	Total Landings
1. 2 landings 1992	10	10	
2. 2 landings 1993	5	4	
3. 2 landings 1994	15	14	
4. Total landing			4
5. Total vessels			10

Scallops

Area Dutch Harbor

	Vessels	Landing	Total Landings
1. 1 landing 1991	Confidential		
2. 1 landing 1992	Confidential		
3. 1 landing 1993	3	6	
4. Total landing			3
5. Total vessels			

Area Kodiak

	Vessels	Landing	Total Landings
1. 3 landings 1991	7	75	
2. 3 landings 1992	3	43	
3. 3 landings 1993	10	57	
4. Total landing			9
5. Total vessels			3

Area Alaska Peninsula

	Vessels	Landing	Total Landings
1. 1 landing 1991	Confidential	75	
2. 1 landing 1992	Confidential	43	
3. 1 landing 1993	6	9	
4. Total landing			3
5. Total vessels			3

A. Confidential less than 3 vessels

B. Area's need to be closed due to high by catch 18,000 crab per day 135,407 pounds of scallop with a total of 151,000 x 2.2 332,200 pounds of crab

Scallops

Area Dutch Harbor

	Vessels	Landing	Total Landings
1. 1 landing 1991	Confidential		
2. 1 landing 1992	Confidential		
3. 1 landing 1993	3	6	
4. Total landing			3
5. Total vessels			

A. Confidential less than 3 vessels

B. Area's need to be closed due to high by catch of Tanner crab. 39,346 pounds of scallops with a total of 50,800 crab X 2.2 +111,760 pounds of crab as by catch in 1993. Total harvest was blow GLH of 170,010 pounds.

C. Rookery or Nursry for Tanners 3 miles and closer.

Fisheries Not to Proceed With Limited Entry

1. P. Cod
   A. Jig Fisheries expanding
   B. 32' exemption for Bristol Bay and Aleutian Islands
   C. Pot Cod crossover and I endorse trawling and longlines being able to harvest cod with pots and jig gear.

Summary: A. These fisheries are just developing.
B. Jig and pots are clean and selective, their growth should be encouraged among the users.
C. Cod use to be used as by catch in harvesting Pollock when the Japanese fished. They would target Cod when it increased in its Biomass.
1. State of Alaska study
D. Most vessels can convert to pots and jig gear. Harvest would be longer; only nation with fresh Cod year long.

2. Dutch Harbor Red Crab
   A. Did not have a fishery in the moritorium period; of 6/28/89 - 6/27/92
   B. Does not have a current fishery in the last 2-3 years.
   C. Should be tied in under an umbrella license with St. Mathew and the Pribilof Islands.
      1. 58' vessels in the Pribilof Islands would be able to qualify
      2. November 1st opening would split up the fleet in the future for Bristol Bay Red Crab.

3. Rocks and Yellow Fin Sole
   A. Its a wasteful fishery, which needs to be cleaned up! We are going to encourage vessels to have a chance at doing it!

Leonard 1KR 206

License Limitation C-3 Crab

RECENT PARTICIPATION ALTERNATIVE
BEST FOR CRAB LICENSES

1. Magnuson act objective is to favor analysis of recent participation to prevent economic dislocation.

2. In December of 1994 this Council asked staff to evaluate the 1992 to 1994 years as a method of producing data for the distribution of crab licenses. That data is available is available to the council under level 40 for qualifying years. (See attached)

3. The analysis indicated that a total of 368 vessels participated in the 1993 Bering sea crab fisheries, AND THAT GIVING A LICENSE TO ALL VESSELS PARTICIPATING FROM January 1, 1992 to December 31, 1994 will only result in 388 total vessels. Further restrictions could be made where necessary for management by using additional landing requirements or requiring participation in 1993 or 1994.

4. USING THE MORATORIUM DATES OF 6/28/89 to 6/27/92 WOULD AWARD MORE PERMITS AND TO THE WRONG BOATS. Boats that fished in 1989, 1990 AND 1991 but left the fishery because they were sold to Russia, returned to the East Coast, or sunk or went into disrepair without replacement during the last three years would receive permits while economically dependent vessels would not.

5. BASING LICENSES ON RECENT PARTICIPATION WOULD MAKE THE "PLAYERS" MORE AMENABLE TO FURTHER RATIONALIZATION SUCH AS A QUOTA SYSTEM BECAUSE THE "PLAYERS" WOULD RECEIVE THE QUOTA NOT PAST PARTICIPANTS.

6. Smaller 80 to 90 foot vessels from Kodiak historically participated in both the crab and groundfish areas and the 1992-1994 years will create less economic dislocation.

7. Using the 1992-1994 dates for crab would mirror the approach taken by the AP on groundfish area restrictions.

8. If the June 27, 1992 control date is utilized it should only be as a general requirement that a vessel be moratorium qualified by making a delivery in a federally managed fishery. Vessels that crabbed prior to the JV years and returned to crabbing when JV mothership opportunities were not available should receive crab licenses.

9. If further fleet reduction is necessary in a given crab fishery it would be best accomplished by looking harder at the last two years, 1993 and 1994, or by requiring

additional landings so that the boats most dependent on the fisheries can continue to work.

10. The fleet has adapted itself to the most recent pot limits sending the smaller boats that can work economically in the areas with the most restrictions.

11. Reduced pot limits and higher valued crabs have made it economical for smaller boats to again pursue local crab fisheries. The introduction of the 160-180 foot mud boats in the mid to late 1980's carrying 500 to 800 pots made it uneconomical for smaller 70-90 foot boats to fish.

CONCLUSION: Where fishing effort in the major crab fisheries has not increased, there is no rationale to go back 5 or 6 years and give vessels crab licenses that have not recently participated, while not issuing licenses to moratorium qualified vessels that have been actively engaged in the fisheries from 1992 to 1994. Where smaller fisheries need more protection, further reductions should be implemented by looking at 1993 and 1994 participation to limit economic dislocation or to increased landings requirements.

submitted by Leonard Herzog, Anchorage Alaska

Table 2.2.4 Number of crab vessels under various qualifying periods and landings requirements compared to 1993.				
Landings Requirements	Configuration # 1314___	Numbers of Vessels		
		Catchers	Catcher Processors	Total
"Current" Fleet 1993	X1	346	22	368
No Minimum	21*	523	28	551
	31	428	26	454
	41	362	26	388
	51	375	27	402
One for Red and Blue	32	419	26	445
Three for Brown and Tanner	52	358	27	385
Three for King or Tanner	33	328	26	354
	53	332	27	359

*Qualifying Periods:

2-: 6/28/89 - 6/27/92 — 6/29/80 - 6/25/83 for D.H. Red, 6/29/85 - 6/25/88 for Pribilof Blue 20

3-: 6/28/89 - 6/27/92 — 6/29/80 - 6/25/83 for D.H. Red, 6/29/85 - 6/25/88 for Pribilof Blue. These two groups must also have made a landing in any federally managed crab fishery between 6/28/89 - 6/27/92. For Norton Sound Red and Blue King Crab fisheries, and for Pribilof Red King Crab, must have made a landing in 1993 or 1994 30

4-: 1/1/92 - 12/31/94 — 6/29/80 - 6/25/83 for D.H. Red and 6/29/85 - 6/25/88 for Pribilof Blue. These two groups must also have made a landing in any federally managed crab fishery between 1/1/92 - 12/31/94. For Norton Sound Red and Blue King Crab fisheries, and for Pribilof Red King Crab, must have made a landing in 1993 or 1994 40

5-: 1/1/88 - 6/27/92 50

Groundfish License and Endorsement Structures

Three possible (umbrella) license structures for groundfish and their impact on fleet growth are discussed.

Non-Separable FMP Licenses

Under this FMP umbrella license system, licenses would be issued for GOA, BSAI, and BSAI/GOA if a license was earned in both areas. The number of vessels fishing groundfish in the North Pacific would be capped at the number of vessels initially licensed. This license structure is represented in Figure 2.3.1

Separable FMP Licenses

The number of vessels fishing groundfish in the North Pacific could increase over the number of vessels initially licensed under separable FMP licenses (Figure 2.3.2). Given the license distribution in configuration 1B15811 and this FMP umbrella license, we can determine the maximum number of vessels that could fish in the North Pacific groundfish fishery at any one time. Because 395 fishers hold licenses for both the GOA and BSAI these fishers could sell one FMP license and continue to fish the other. This means that 395 new vessels could enter the fishery.

Unalaska Native Fisherman Association

P.O. Box 591, Unalaska, Alaska 99685 Phone: (907) 581-3474 (FISH) Fax: (907) 581-3644

RESOLUTION 95-01

A RESOLUTION SUPPORTING EXEMPTIONS FOR FISHING VESSELS IN THE BSAI AND GOA UNDER THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL'S COMPREHENSIVE RATIONALIZATION PLAN

WHEREAS, the small boat fleet owned by the residents of the coastal communities of Alaska catch a very small percentage of the TAC in the fisheries in the CRP; and

WHEREAS, these same residents rely heavily on commercial fishing for their livelihood; and

WHEREAS, the small owner-operator vessels generally utilize cleaner fishing methods when compared with the industry as a whole; and

WHEREAS, the jig fishery is historically among the cleanest fisheries ever utilized; and

WHEREAS, the NPFMC recently ruled to set aside 2% of the TAC on P-cod in the Bering Sea to the jig fishery; and

WHEREAS, the small, local and clean fishermen feel it should be their right to be able to gain access to fisheries under CRP; and

WHEREAS, over-capitalization in the industry is at the root of many of the major problems in fisheries management; and

WHEREAS, the local, small boat fleet which utilizes clean fishing methods in the fisheries under CRP feel that they were not a part of this over-capitalization problem; and

WHEREAS, the jig fishery produces a higher quality product which demands a higher price; and

WHEREAS, exemptions for small boats and clean fishing methods would only be the fair thing to do;

NOW THEREFORE BE IT RESOLVED that the Unalaska Native Fisherman Association supports a total exemption for 35' fishing vessels in the BSAI and GOA under the NPFMC's CRP; and

BE IT FURTHER RESOLVED that the UNFA supports a total exemption for the jig fishery with a limit of five jigging machines per vessel, no matter what size the vessel is, under the NPFMC's CRP; and

BE IT FURTHER RESOLVED that UNFA supports expanding jig quotas to other species, including Atka mackerel, rock fish, halibut and black cod.

We do certify that the above resolution was passed and approved at a meeting of the Board of Directors therefore duly called and held this 26TH day of FEBRUARY 1995. At which a quorum was present and resulted in a vote of 6 ayes, 0 nays, and 0 abstaining.

Emil W. Berthoff, President

John Moller, Secretary/Treasurer

TOTAL P.01

CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION NO. 95-24

A RESOLUTION OF THE UNALASKA CITY COUNCIL SUPPORTING THE EXEMPTION OF VESSELS UP TO 35' FISHING IN THE BERING SEA/ALEUTIAN ISLANDS AND GULF OF ALASKA AREAS AND THE EXEMPTION OF VESSELS IN THE JIG FISHERY WITH A LIMIT OF FIVE JIG MACHINES FROM THE NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL'S (NPFMC) COMPREHENSIVE RATIONALIZATION PLAN (CRP) AND SUPPORTING THE EXPANSION OF JIG QUOTAS TO OTHER SPECIES.

WHEREAS, the small boat fleet owned by the residents of the coastal communities of Alaska catch a very small percentage of the TAC in the fisheries listed in the CRP; and

WHEREAS, residents of coastal Alaska rely heavily on commercial fishing for their livclihood; and

WHEREAS, the small boat fleet, which utilizes cleaner fishing methods in the fisheries listed in the CRP, believe they are not part of the over-capitalization problem and should be able to gain access to all fisheries listed in the CRP; and

WHEREAS, the jig fishery is historically a clean fishery which produces a higher quality product and demands a higher price; and

WHEREAS, the North Pacific Fishery Management Council recently ruled to set aside 2% of the TAC on P-cod in the Bering Sea for the jig fishery; and

WHEREAS, the small boat fleet wish to see jig quotas expanded to include other species, including Atka mackerel and rock fish.

NOW THEREFORE BE IT RESOLVED that the Unalaska City Council supports the exemption of vessels up to 35' fishing in the Bering Sea/Aleutian Islands and Gulf of Alaska areas from the NPFMC's Comprehensive Rationalization Plan; and

BE IT FURTHER RESOLVED that the Unalaska City Council supports exemption of vessels participating in the jig fishery with a maximum of five jig machines per vessel regardless of vessel size from the NPFMC's Comprehensive Rationalization Plan; and

BE IT FURTHER RESOLVED that the Unalaska City Council supports expanding jig quotas to include other species, including Atka mackerel and rock fish.

PASSED AND ADOPTED BY A DULY CONSTITUTED QUORUM OF THE UNALASKA CITY COUNCIL THIS 14 DAY OF March, 1995.

MAYOR

ATTEST:

CITY CLERK

AFTA Position on License Limitation

I. We recommend rejecting the license limitation program

But If the AP/Council want to proceed with a License Limitation Program then the Association believes an option that best mimics the moratorium should be adopted

"Moratorium License Limitation" (1111810)

A- Single class of license - no "B" permits 1 000 000
B- No Restrictions on Areas or Species 100 000
C- License should be issued to current vessel owners 10000
D- No Restrictions on license designations 1000
E- Qualifying Period of Jan 1, 1988 - June 27, 1992 800
F- One landing for general license qualification 10
G- Landing for endorsement qualification - NONE 0

Other Elements

H- Vessel/License Linkages - Option 2: licenses may be transferred without a vessel
I- Separability of Species and/or area designations - Option 3: Species and/or area designations shall be regarded as separable endorsements which require the owner to also own a general license before use or purchase
J. Vessel Replacement and Upgrades - Option 3 - use 20% rule of the moratorium
K. Ownership Caps - Option 1 - NO limit
L. License Use Caps - Option 1 - No limit
M. Vessel Designation Limits - Option 1 - No restriction
N. Buy Back - NO Position
O. Skippers License - Option 1 - NONE

(2)

AFTA Position on License Limitation

P. CDQ - Option 1 - None

Q. Community Development License - Option 2 - 3%

Other Provisions:

- We support items 1-5
- To the degree that Provision 6 is consistent with the moratorium we support it.

Tom Sargan

SEA

SKIPPERS FOR EQUITABLE ACCESS

LICENSE PROGRAM FOR CAPTAINS

I **Licenses are for Captains, not crewmen.**

II **At least one license holder must be present on board the vessel when fishing.**

III **Captain licenses will be good for any fishing area or species.**

IV **Transferability:**

These licenses are transferable only to other qualified Captains: but leasable in case of emergencies, and, for the purpose of training, to crewmen working toward the position of Captain.

V **Endorsements:**

No endorsements; each Captain license will be good for all species and areas covered by the vessel license plan. No vessel size classes.

VI **Eligibility criteria builds upon Bona Fide Captain criteria.**

i A Coast Guard Fishing Master License.

ii Must have at least three documented landings per year in the subject areas and fisheries for a minimum of three years.

iii A year is defined as a calendar year.

VII **Qualification period:**

Must have participated as a Captain in the subject fisheries for at least three years from the beginning of the vessel qualification period until the time of publication.

VIII **There will be specific criteria for those who are eligible to purchase or obtain Captain licenses:**

In order for a crewman to qualify for a license after publication of the regulations he/she must meet the aforementioned fishing history and possess a USCG Fishing Master License.

IX **Qualified Captains under this management method will qualify for inclusion in all future Quota Share or alternative allocation methods.**

REV 4/94 (ID 9/94)

1515 NW 51st, Seattle, Washington 98107 • Phone (206) 782-4454 • Fax (206) 783-4342

City of Old Harbor

P.O. Box 109
Old Harbor, Alaska 99643

CITY OF THE THREE SAINTS

(907) 286-2203 OR 286-2204

FAX: 286-2278

Resolution #95-03

RESOLUTION TO PRESERVE LOCAL ECONOMIC OPPORTUNITY IN THE GROUNDFISH INDUSTRY.

WHEREAS: The Magnussen Act is under review and reauthorization by the U.S. Congress.

WHEREAS: The North Pacific Management Council is considering a Limited Access or Restricted Access plan to aid in management of the groundfish fishery.

WHEREAS: The only economic industry for the community of Old Harbor is commercial fishing.

WHEREAS: The Halibut / Sablefish IFQ program as adopted eliminated and reduced the Local small boat fleets' opportunity to fish these fisheries and causing an economic impact on the overall yearly production and income of the Old Harbor fishing fleet.

WHEREAS: This economic loss and the loss in fishing time creates a greater burden on the social programs of the State and Federal Governments and the services of the local municipality.

NOW THEREFORE BE IT RESOLVED: Any plan adopted to restrict access into the Groundfish Fishery retain the opportunity for the smaller fleets of the coastal communities of Alaska to enter into and harvest these resources.

Passed and adopted this 6th day of April 1995.

Rita Bern
Mayor

Lydia Lazelle
City Clerk

Oh LS

GOAL AND PURPOSE FOR INCLUDING CDQ'S IN LICENSE LIMITATION

The Council finds that:

- The coastal communities of western Alaska are geographically isolated, have few natural resources with which to develop their economies, and have a high unemployment rate with substantial social problems.
- Participation in the full range of Bering Sea commercial fisheries has been closed to western Alaska coastal communities because of the required high capital investments.
- The economics of Bering Sea commercial fisheries are volatile due to fluctuating TACs and changing market conditions for individual species.

In recognition of these conditions, the allocation of CDQs as a part of the license limitation program for BSAI groundfish and crab would provide western Alaska communities a fair and reasonable opportunity to participate in the full complex of Bering Sea commercial species in order to develop:

1. A solid, diversified economic base.
2. Stable, long term employment.
3. An ongoing, regionally-based, diversified and self-sustaining commercial fishing industry based on access to Bering Sea fisheries.

WAFDA, 4/21/95

City and Borough of Sitka

100 LINCOLN STREET.SITKA, ALASKA 99835

April 20, 1995

North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Council Members:

(The following testimony was given in person at the April, 1995 North Pacific Fishery Management Council meetings.)

My name is Dan Keck and I come before you today representing the Assembly of the City and Borough of Sitka. As a representative of this body, I wish to speak in support of the proposed ban on trawling in the Eastern Gulf of Alaska, east of 140 degrees West longitude.

Fishing is the year-round, life blood of my community. In Sitka, commercial fishing goes on nearly every day of the year.

Since the times described by our earliest local Tlinget oral histories, the area has supported the inhabitants with an abundance of fish of many species. With the passage of time, chronicles have repeatedly recorded that the surrounding coastlines attracted robust fleets of hook and line fisherman hailing from ports all along the west coast of North America.

Presently, the City of Sitka is the homeport of one of the most proficient longline fleets fishing the Gulf of Alaska. This fleet is made up of small to medium sized vessels, with most averaging less than 50 feet in length wand with each vessel employing 3 to 5 crewmen. But, despite the comparable small size of the vessels, their longlining operations range along the entire continental shelf of the Southeast Alaskan coast in pursuit of halibut, sablefish and many species of rockfish.

The catch success of our Sitka longline fleet can be measured by the continued growth and upgrading of the fish buying and processing sector of our business community. The adaptability of the longline fleet has allowed for a small measure of dependability in hook and line production across the docks at Sitka. Over the course of the past 30 years, the continued production of the local longline fleet has helped these onshore processors make ends meet during periodic shortfalls of salmon, herring, and shellfish production.

In recent years, reductions in the length of fishing periods for both halibut and sablefish have focused more attention on the Sitka area rockfish stocks for fresh market longline products. With the incorporation of good marketing and a lot of hard lessons, the rockfish products of Sitka enjoy a strong demand throughout the fresh fish markets of both the U.S. west coast and the Orient.

However, just as we finish writing the last bright chapter of their longstanding, successful market development, the longline fishermen of Sitka face certain economic dislocation at the hands of the northwest trawl industry. The ecosystem offshore of Southeast Alaska, which as sustained the pressure of the longline fishery over the past 100 years, is very fragile. Federal and State biologists maintain that the key element that has made this area so productive for hook and line fishermen for so long are the forests of coral which provide necessary protection and cover for juvenile rockfish and other important commercial species. These coral grounds cannot withstand the effects of trawling.

The Assembly of the City and Borough of Sitka passed this resolution after the local industry gave a presentation outlining the dynamics of this situation. Quite naturally, we all share their feelings of alarm and frustration, and we wish to impress upon the Council that our apprehension stems from our community's dependence upon a healthy hook and line fishery offshore of Southeast Alaska.

I would like to read the Assembly's resolution at this time.... *(see attached.)*

Sincerely,

Dan Keck
Representative for the Assembly
of the City and Borough of Sitka

Sponsor: Hallgren/Smith

RESOLUTION NO. 95-601

A RESOLUTION OF THE ASSEMBLY OF THE CITY AND BOROUGH OF SITKA, ALASKA SUPPORTING A BAN ON TRAWLING IN THE EASTERN GULF OF ALASKA EAST OF 140 DEGREES WEST LONGITUDE

WHEREAS, the Eastern Gulf of Alaska has been a significant hook and line fishing area for almost 100 years; and

WHEREAS, this southeast community is one of the larger fishing areas in the State of Alaska and proper management is necessary to ensure continued access of local fishermen to Southeast fish stocks; and

WHEREAS, the trawl fishing effort is expected to exert undue fishing pressure on fish stocks and displace traditional hook and line fisheries threatening the sensitive habitat unique to Southeast; and

WHEREAS,the eastern Gulf of Alaska contains an unique assemblage of valuable rockfish species in amounts small enough that the rockfish stocks could be easily damaged by large vessel activity; and

WHEREAS, given the need to improve the management of our fisheries resources, if any single species of rockfish reaches its over fishing level, the entire rockfish complex and any other fishery that might take any of the over fished rockfish species are closed; and

WHEREAS, an eastern Gulf of Alaska trawl fishery can seriously disrupt the traditional fisheries on which 3,000 Southeast Alaska hook and line fishermen depend; and

WHEREAS, Southeast Alaska contains limited smooth bottom areas suitable for trawls, but instead many rocky areas that support an abundant, diverse, yet fragile deep water habitat; and

WHEREAS, the impact of the trawl gear adversely affect corals and associated hard bottom species; and

WHEREAS, only by closing the eastern Gulf of Alaska east of 140 degrees west longitude to trawl fishing, can the stability of Southeast Alaska fisheries be protected.

NOW, THEREFORE, BE IT RESOLVED by the Assembly of the City and Borough of Sitka, Alaska that the City and Borough of Sitka endorses House Joint Resolution No. 25 relating to a ban on trawling in the eastern Gulf of Alaska east of 140 degrees west longitude.

PASSED AND APPROVED by the Assembly of the City and Borough of Sitka, Alaska on February 28, 1995.

Anne M. Morrison

Anne Morrison, Deputy Mayor

ATTEST:

Colleen Pellett, Municipal Clerk

155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801

March 21, 1995

The Honorable Rocky Guiterrez, Mayor
City and Borough of Sitka
100 Lincoln Street
Sitka, Alaska 99835

Dear Rocky Gutierrez;

Following his visit with you in Sitka, Assemblymember Rod Swope called the Assembly's attention to Sitka's Resolution 95-601.

At the Assembly Meeting on March 20, 1995, the Assembly of the City and Borough of Juneau endorsed Sitka Resolution No. 95-601 entitled:

> A RESOLUTION OF THE ASSEMBLY OF THE CITY AND BOROUGH OF SITKA, ALASKA SUPPORTING A BAN ON TRAWLING IN THE EASTER GULF OF ALASKA EAST OF 140 DEGREES WEST LONGITUDE.

We understand that the endorsement will be included in materials forwarded to the national and state legislative delegations.

Thank you for your support of the residents of Juneau. We are working hard to improve the Capital City and we look forward to working with you on matters of mutual concern.

Sincerely,

Dennis W. Egan
Mayor

DWE:ets

Enclosure

Tom Casey
Apr '95

Alaska Fisheries Conservation Group

P.O. Box 910 Woodinville, WA 98072 (206) 488-7708 Fax (206) 823-3964

Recommended Crab License Limitation Criteria
April 20, 1995

1. Qualifying Vessels: 250-300 maximum

A.	Single class of license	100,000
B.	All species/All areas	10,000
C.	Current vessel owner	1,000
D.	Catchers & CP's by length-class	400
E.	'88-92 plus somecurrent participation	50+
F.	Sufficient minimum landing requirements to demonstrate economic dependence on the crab fisheries	(7-10)
G.	License transfer w/o vessel (to replace casualties)	
H.	Upgrade: 20% rule within class	
I.	No ownership cap	
J.	No skipper license	
K.	No ITPQ	
L.	No CDQ's without an ANCSA-discount and implementation of CDQ's in the State's salmon and herring fisheries. (Alaska natives are already good competitiors in the Alaska crab fisheries).	
M.	Non-transferable (No windfall profits)	
N.	No sunset	
O.	Simultaneous openings with sliding-scale pot limit/GHL for Dutch Harbor, Pribilofs and St. Mat	

Recommended Public Process

A. Special 2-day meeting in August for Groundfish and Crab License-Limitation only

B. Publish qualifying vessel lists for each of the final three options before any Council vote

NOME FISHERMEN'S ASSOCIATION STATEMENT IN OPPOSITION TO THE LICENSE LIMITATION PROPOSAL FOR NORTON SOUND CRAB FISHERIES.

Presented to the North Pacific Fisheries Management Council at the April 1995 Meeting in Anchorage, Alaska.

Tim Smith, President, Nome Fishermen's Association. Box 747, Nome, Alaska 99762
Tel. 907-443-5352 Fax 907-443-5014.

Summary Statement
The Nome Fishermen's Association unanimously opposes application of the license limitation proposal before the North Pacific Fisheries Management Council in any of the published permutations of options for crab fisheries in Norton Sound. We conclude that license limitations at this time as proposed will arbitrarily and permanently exclude the majority of our member fishermen from a fishery that occurs directly offshore of our communities. We recommend that the NPFMC defer action on limiting entry into Norton Sound until an equitable plan can be worked out in consultation with local fishermen.

History Of The Norton Sound Red King Crab Fishery

Background
Norton Sound residents have harvested red king crabs for generations for subsistence and unregulated commercial trade. The bulk of the harvest was taken in the winter through the sea ice. In the late 1970's Nome fishermen lobbied for the establishment of a recognized commercial harvest. These proponents recognized the threat of domination of the new fishery by the large Bering Sea crab fleet and advocated that the commercial harvest be taken in the winter. The state and federal regulatory agencies adopted regulations to initiate a commercial crab harvest. However the first fishery to occur in 1977 was a summer harvest which was in fact dominated by large boats from outside Norton Sound. In subsequent years the non-local crab fleet continued to exploit the Norton Sound crab stocks in summer with insignificant participation by local fishermen.

Excessive summer harvests in the early 1980's peaking at 3 million pounds severely impacted the ability of local commercial and even subsistence fishermen to harvest crabs in winter. There were several attempts to mitigate this situation through regulations implemented in the 1980's. Nearshore waters were closed to summer commercial crabbing, although in some years the closed waters were opened by ADFG managers in order to facilitate the harvest of crabs. Many winter fishermen and crab researchers and managers are of the opinion that commercial harvests in the summer season continue to negatively impact the ability to harvest crabs in the winter season.

A forty pot limit was imposed to make the fishery more manageable which tended to discourage participation by large vessels.

Superexclusive
The most significant regulatory change for local fishermen came in 1993 when the fishery was designated superexclusive. That regulation along with the 40 pot limit appeared to open the door to participation by local fishermen. However, understanding of the new regulations was sketchy and there was little time to acquire boats and gear up to enter the fishery prior to the season opening. Only 2 Norton Sound boats fished and one of them was an open plywood skiff. Neither boat took a significant harvest. Another development that discouraged investment in the new fishery by locals was a challenge by the Seattle based Alaska Crab Coalition and before the 1993 season was over the superexclusive designation was eliminated.

In late spring 1994 after protracted effort by local interests and Alaska's state and federal representatives the superexclusive designation was reinstated for the Norton Sound king crab fishery. Again, little time was available for local fishermen to locate and purchase boats and gear and many of us were more than a little suspicious of investing in the fishery given the transitory nature of the 1993 regulations. The majority of the 18 Nome and Norton Sound boats that participated in the fishery in 1994 were marginally suited to crabbing; most of them herring skiffs pressed into service to test the waters. Eight of the boats are 30 feet or less. Boats from Nome and other Norton Sound communities together took only 18% of the 1994 harvest.

License Limitations
Local fishermen who had gained a little confidence in 1994 in the security of the superexclusive crab fishery were caught completely off guard by the proposal to limit access to the fishery to those who owned the boats that for one reason or another had reported selling at least one crab in the summer seasons of 1993 and 1994. The proposal based on one of two magical years was not tied to individual participation or investment in the fishery and provided no credit to those who had fished the winter season for years and had in some cases taken larger annual harvests of crabs than the combined historical harvests of many of the boats which would qualify for limited licenses. What bothered us most is that there appears to have been no attempt to communicate with the affected fishermen in drafting a plan which would have such far reaching consequences.

Summary and Recommendations
The members of the Nome Fishermen's Association unanimously oppose the implementation of the license limitation plan at this time according any of the options we have seen. Although we agree with the benefits of some form of limited entry and are aware of the risks associated with leaving the fishery open when other Bering Sea crab fisheries are closed or have adopted limited entry, we believe that these risks are, preferable to the impact of locking up the fishery with a plan that is arbitrary and was developed without the involvement of local fishermen.

The northern Norton Sound no longer has a commercial salmon season. The herring fishery located in eastern Norton Sound has been severely depressed to the point that economic viability is questionable. Beginning in 1996, CDQ regulations will eliminate the

potential for local fishermen to harvest halibut in Norton Sound. For all practical purposes, Norton Sound king crab is the only fishery available to us.

If license limitations are imposed as recommended, Nome, a community of 4,100 residents will have 3 boats over 30 feet, 2 open skiffs 25 and 30 feet, an 18 foot Lund and a 30 foot daysailer catamaran licensed to fish crabs.

Historically, nearly all of the crab harvested in both summer and winter in Norton Sound have been taken within a 50 mile radius of our community; most within 15 miles. If this proposal is adopted we will find ourselves in the same situation as in the bad old days, when outside vessels owned by corporate entities monopolized crab harvests virtually on our doorsteps.

We recommend that the NPFMC defer action on license limitations for the Norton Sound and St. Lawrence Island Sections until there is a clear need to limit access to the fishery and an equitable method of distributing licenses to insure fair participation by local fishermen. Until that time we recommend that the current superexclusive designation with a pot limit be maintained.

Catcher/Processor Vessel Classification Scheme

1. ALL VESSELS WHICH HARVESTED AND PROCESSED CRAB OR GROUNDFISH = If vessel processed (crab-fish tickets; all others-weekly processor reports) groundfish or crab than vessel would be classified as a processor else vessel is a harvest vessel only.

    a. TRAWLERS
        i. TP1 = Trawler Processor 1 - Processing vessels equal to or greater then 190 feet that trawled and processed surimi between 1988-1993. These vessels also have the ability to do fillets and H&G.
        ii. TP2 = Trawler Processor 2 - Processing vessels equal to or greater then 150 feet that trawled and their total processed product of pollock and/or pcod during the April to December portion of each year between 1988-1993 was more than or equal to 60% fillets. These vessels also have the ability to do H&G.
        iii. TP3 = Trawler Processor 3 - Processed H&G and used trawl gear only between 1988-1993.
        iv. TP3* = Trawler Processor 3* - Processed H&G and in addition to trawl gear used longline and/or pot gear type between 1988-1993.
    b. POT VESSELS
        i. CP1 = Crab Processor 1 - Processed king and/or Tanner crab and only used pots between 1988-1993 (only has chilling tanks and brine freezers for processing crab).
        ii. PCP1 = PCOD Processor 1 - Processed only PCOD and pots are the only gear used between 1988-1993 (only has a head &gut line and plate freezers for processing pacific cod).
    c. LONGLINERS
        i. LP1 = Longline Processor 1- Processor that used only longline between 1988-1993.
    d. POT/LONGLINE VESSELS
        i. CP1/LP1 = Crab Processor 1/Longline Processor 1 - Processed crab and either longline caught groundfish or pot caught PCOD between 1988-1993(vessel has both crab processing line and head & gut line).

Catcher Vessel Classification Scheme

2. ALL VESSELS WHICH ONLY HARVESTED CRAB OR GROUNDFISH = If vessel did not process groundfish or crab than the vessel is designated a catcher vessel.
   a. TRAWLERS
      i. TH1 = Trawler Harvester 1- Trawlers 125ft and over that used only trawl gear between 1988-1993.
      ii. TH2 = Trawler Harvester 2- Trawlers 90ft to 124ft in length and used only trawl gear between 1988-1993.
      iii. TH3 = Trawler Harvester 3- Trawlers less then 90ft and used only trawl gear between 1988-1993.
      iv. TH1* = Trawler Harvester 1* - Trawlers 125ft and over that used trawl gear in addition to other gear types between 1988-1993.
      v. TH2* = Trawler Harvester 2*- Trawlers 90ft to 124ft in length and used trawl gear in addition to other gear types between 1988-1993.
      vi. TH3* = Trawler Harvester 3*- Trawlers 58ft to 90ft in length and used trawl gear in addition to other gear types between 1988-1993.
   b. POT VESSELS
      i. PH1 = Pot Harvester 1- Vessels 125ft or greater in length that harvested king crab,Tanner crab, and/or PCOD using only pot gear between 1988-1993.
      ii. PH2 = Pot Harvester 2 - Vessels 58ft - 124ft in length that harvested king crab,Tanner crab, and/or PCOD using only port gear between 1988-1993.
      iii. PH1* = Pot Harvester 1* - Vessels 125ft or greater in length that harvest king and/or Tanner crab using pot gear and used either longline, jig, or dredge (didn't trawl) between 1988-1993.
      iv. PH2* = Pot Harvester 2* - Vessels 58ft - 124ft in length that harvest king and/or Tanner crab using pot gear and used either longline, jig, or dredge (didn't trawl) between 1988-1993.
   c. LONGLINE VESSELS
      i. LH1= Longline Harvester 1- Longline vessels that are greater than 58ft and used only longline and/or jig gear between 1988-1993.
      ii. LH2= Longline Harvester 2 - Longline vessels that are less than 58ft and used only longline and/or jig gear between 1988-1993.
   d. SEINE VESSELS WHICH HARVEST GROUNDFISH
      i. SEN/TH4 = Seiner/Trawler Harvester 4 - Vessels less then 58 feet which used seine gear and also used trawl gear between 1988 - 1993.
      ii. SEN/PH2 = Seiner/Pot Harvester 2 - Vessels less then 58 feet which used seine gear and also used pot gear between 1988 - 1993.
      iii. SEN* = Seiner * - Vessels less than 58 feet which used seine gear and also used longline and/or jig (didn't trawl or pot) between 1988-1993.
      iv. CSEN* = Chignik Seiner* - Vessel less than 58 feet which used seine gear and also fished in Chignik fishery between 1988 - 1993.
   e. GILL VESSELS WHICH HARVEST GROUNDFISH
      i. GL1* = Gill Net 1* - Vessels greater than or equal to 32 but less than 58 feet which used gill nets rather than seine nets between 1988 - 1993.
      ii. GL2* = Gill Net 2* - Vessels less than 58 feet which used gill nets rather than seine nets between 1988 - 1993.
   f. DREDGE VESSELS WHICH HARVEST GROUNDFISH
      i. DRG = Dredge Vessel - Vessels that only used dredge gear between 1988 - 1993.
   g. MISCELLANEOUS
      i. MSC = Those vessels that harvested groundfish or crab but did not fall within the vessel classification between 1988-1993.

Brent C. Paine
Executive Director

UNITED CATCHER BOATS
U C B
Washington · Oregon · California · Alaska

Steve Hughes
Technical Director

April 13, 1995

Mr Rick Lauber, Chairman
North Pacific Fishery Mangement Council
P.O. Box 103136
Anchorage, Alaska 99510

Dear Rick,

We would like to take this opportunity to present our choices of options for license limitations, as well as our suggestions on individual bycatch quotas. We met with the UCB Board of Directors on Tuesday, April 11, and what follows is their recommendations on the various options of the present License Limitation analysis.

1. License Classes

We support #1,000,000 -- a single class of licenses, but we are open to suggestions, particularly from small boats.

2. Nature of Licenses

We support #200,000 -- licenses for Gulf of Alaska and Bering Sea / Aleutian Islands FMP areas, meaning the licenses are separate for each area and that a vessel would receive a license for each if qualified for each. The #200,000 option is not clear in species specifications but we would support all species by FMP area rather than groups of selected species or individual species.

3. License Recipients

We support current owners, #10,000 -- the only exception being by private contract between parties in which an old owner specifically retained any future ownership.

4. License Designations

We understand the State to endorse either #5,000 or #8,000. The UCB Board has recommended that licenses be designated by just vessel length (#3,000). We feel that

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in certain groundfish trawl fisheries there is a future opportunity for catcher boats to do some primary processing on board. We have the opportunity to do so now, and would not want a license designation to preclude us in the future. Regarding vessel length and possible sale between designated classes, the analysis lacks any information in combining of vessel licenses so that a larger vessel could acquire a number of smaller vessel licenses.

5. Qualifying Period

We support #800 -- January 1, 1988-June 27 1992. We strongly oppose any qualifications being granted after the moratorium date and we strongly oppose granting any special favors for the Pacific cod freezer longline fleet as noted in #700. They don't deserve any special favors! We all lived with the same cod import quota problems--check it out!!

6. Landing Requirements for General License Qualification

If the Nature of Licenses is established at #200,000 (all FMP areas), we favor #50, and we would support the 20,000 lb. quantity being increased substantially for larger vessels, i.e. step up by vessel size. The landing criteria needs to be clarified in regard to the time period to which it applies. We favor making the landing quantity even larger and applying it to a multi year qualification period. This will avoid a lot of "single year" problems which we all know will show up, especially within the smaller vessels.

If the Nature of Licenses is established at a level greater than the FMP areas level, we do not support #50. Rather we would support #10, one landing. In addition, regardless of what option is chosen, we strongly support basing the decision on federal catch record data, not just ADF&G fish ticket data. By using just ADF&G data, many landings made by our vessels will be excluded because motherships are not required to issue ADF&G fish tickets for deliveries received by catcher boats.

7. Landing Requirements for Endorsement Qualification

We understand this is being omitted and that sounds good to us.

8. Who May Purchase Licenses

We support a modified version of #1. Our intent is to not allow any additional foreign ownership into our fisheries. We also recognize the present and past involvement of foreign investment into the fisheries and some form of grandfather clause should be acceptable to allow this foreign investment to remain productive.

9. Vessel / License Linkages

We support #2 -- it is the only practical option.

10. Options Regarding the Separatability of Species

We suggest this be omitted, as it would be handled by the "Gulf of Alaska all species" and "Bering Sea / Aleutian Islands all species" concept under Nature of Licenses.

11. Vessel Replacement and Upgrades

We support #3 -- consistent with the moratorium language. This assumes that the qualification dates within the present version of the moratorium remain the same and that vessels cannot upgrade once under the moratorium provisions and then again under a license limitation provision. The upgrade provisions should be one and the same for both programs.

12. License Ownership Caps

We support #2 -- i.e., five area licenses with the grandfather provision, assuming that "area" is defined as an FMP Area. This needs to be clarified. Our endorsement of five area licenses also assumes that under the Nature of Licenses, option 200,000 is used.

13. Vessel License Use Caps

We support #1 -- no limit. This item could actually be eliminated to shorten the options.

14. Vessel Designation Limits

We support #1 -- we participate under any designation for which the vessel qualifies.

15. Buy-Back Retirement Program

We support #1 -- no buy-back program is going to work.

16. Two Tiered Skipper License Program

This one needs some work, lets develop some ideas at the Council meeting.

17. CDQ

We support #2 -- i.e., 3% of all TAC's. Our reasons are both to spread the CDQ cost over all the fisheries and to provide more than the factory trawlers with an opportunity

to participate. We see this as a win/win. We don't see this being forever, are there other options? We also discussed a new sub-option of sectoring the CDQ into a factory trawler/catcher boat allocation, for both groundfish and crab in order for the coastal communities to fully reap the maximum benefits from this program.

18. CDL

Eliminated

19. Other Provisions

Need to be studied further.

Regarding other issues, we simply cannot emphasize enough the importance of building an individual vessel bycatch plan into our management. As you indicated, this plan should not interfere with the CRP package, but in our view it must be quickly developed on a "catch-up schedule". The VIP program is a total shamble (they have three cases pending and have settled on case in four years for $34,000--big deal). We need individual vessel accountability, it's a win/win for all but the dirty dozen. Please give this some serious thought as to the best procedure and political support and have a look at the attached list.

We look forward to seeing you in Anchorage April 19-23 and to the continuation of our discussions.

Sincerely,

UNITED CATCHER BOATS

Steven Hughes
Technical Advisor

Brent Paine
Executive Director

04/12/95a

Drogue Survey

Westward released drogues at the surface and at depths of 5 m at three stations, and at the surface and at a water depth of 15 m at a fourth station within 500 ft of their seafood waste outfall in Captains Bay. The purpose of the drogue study was to obtain information on diffusion for modeling purposes.

The results of this drogue study were evaluated to determine if any relationship existed between movement of surface waters and tidal currents. From the information presented no relationships were detected. However, it appears that the movement of the upper 5 m layer of the water column is strongly affected by the wind. This is not surprising since the magnitude of the tidal exchanges during the drogue studies ranged from only 0.3 to 4.2 ft.

Circulation Study

SAIC (1993) completed a one-year circulation study within Captains Bay. Water currents were measured at the north end of the bay near the entrance, in the northeast part of the bay, and near the west shoreline at about midbay. Currents were generally low at all locations, rarely exceeding 10 cm/sec. Maximum currents of 20-24 cm/sec were measured in the winter months (Oct-Feb), primarily associated with a north wind. Circulation in the bay had two distinct components: surface currents directed to the south and a persistent counter-clockwise circulation under the surface flow.

National Marine Fisheries Service Study

As part of an overall field investigation in the Dutch Harbor-Unalaska area June 8 to 11, 1992, the National Marine Fisheries Service conducted a water quality study in Captains and Unalaska bays (NMFS 1992, field report). They reported that seafood waste was being discharged from all outfalls at that time.

In Captains Bay, the NMFS measured water quality at some of the stations monitored by Westward Seafoods; one station was near Westward's outfall and 10 stations were located in the bay. Except for one station, which remained above 6 mg/L at all water depths and was located in the south channel leading to Iliuliuk Harbor, they found DO levels below 6 mg/L throughout the bay at water depths from 25 to 43 m. Below this depth range the DO usually remained below 6 mg/L at each station; the lowest DO measured was 4.7 mg/L.

The NMFS measured water quality at three stations in the vicinity of the seafood waste outfalls on the west side of Amaknak Island. DO levels from 5 to 6 mg/L were only found at one station and at water depths greater than approximately 25 m. This station was located offshore of Alyeska Seafoods' outfall.

They also surveyed the bottom near Westward Seafoods outfall in Captains Bay with divers. They found an accumulation of fish waste in this area that was surrounded by a larger zone of impact as noted by extensive mortality to a previously observed population of rock oysters (sometimes called jingle shells), which are bivalves that attach to rocks. Another notable difference from prior observations was the absence of green sea urchins, which were found in large numbers in June 1991.

Summary

Dissolved Oxygen

Unalaska Bay has been identified as water quality-limited due to violations of the dissolved oxygen standard. Ambient water quality monitoring indicates that marine waters in the Unalaska Bay experience low dissolved oxygen levels at times during late summer and fall months. During this 4-month period, discharges from seafood processors have a major influence on water quality in the area.

Indications of significantly impaired water quality conditions have recently been observed in the Unalaska area. Near the end of July 1991, a fish kill was observed in Unalaska Bay on the west side of Amaknak Island near the seafood waste outfalls. The fish kill involved both pelagic and benthic fish species and bottom invertebrates (e.g., sea urchins). The cause of the kill was not determined.

In late August 1992, dead and dying sub-adult red king crab were observed on the east shore of Captains Bay. The cause of the mortality was attributed to a combination of poor water

quality (elevated water temperature and low dissolved oxygen) and heavy gill fouling by a diatom.

An assessment of the effects of seafood processing activities on Captains Bay requires a thorough understanding of the seasonal variations in dissolved oxygen. Natural, seasonal DO depressions could occur because of the sill at the entrance to Captains Bay. Bottom waters in Captains Bay will tend to be replaced in late summer or fall under the influence of winds and cooler air temperatures. Consequently, Captains Bay may experience anoxic or recurrent hypoxic conditions. Other factors contributing to low dissolved oxygen could include loading from seafood processing activities in both Captains Bay and Unalaska Bay, high marine organic production in early spring continuing through the summer, and organic loads resulting from NPS runoff.

Another concern related to dissolved oxygen is a near-surface DO depression. This event appears to be transient and may result from a combination of factors. This could include thermal stratification stabilized by a fresh water lens along the eastern boundary of Captains Bay, high organic loading from seafood processing waste discharges in both Unalaska and Captains Bay, and organic loads from nonpoint sources.

Benthic Accumulations

Another concern identified during the assessment process has been the accumulation of fish processing wastes on aquatic life. Past studies have documented biologically stressed benthic communities in the vicinity of seafood processing outfalls. Burrowing and attached benthic organisms have been observed to be completely eliminated from areas covered bywastes deeper than about 1 inch.

Concern over the growing size of the waste piles continued through the 1980's. As of November 1992, divers measured 18 acres of bottom that were covered by seafood wastes in the four disposal areas on the west side of the Amaknak Island (Table C-4). At Bailey Ledge in Captains Bay, an additional 2 acres of bottom appear to be covered by seafood wastes. Adverse bottom affects extend beyond the perimeter of these 20 acres when shallow, less dense waste slurries move away from the main piles by dispersive forces. Screening of sediment samples in these areas, taken during EPA's 1990 survey, found the substrate devoid of detectable aquatic life. The total bottom area affected by the wastes in Unalaska and Captains bays is unknown.

Table C-4. Waste Pile Sizes -- Unalaska Area

Source Area	Pile Area (acres)		Pile Volume (cubic yards)	
	6/92	11/92	6/92	11/92
Aleyska	7.18	8.03	14,535	13,211
Unisea	7.87	7.59	22,364	19,521
Royal Aleutian	1.54	1.49	3,095	2,853
Queen Fisheries	0.68	0.46	520	467
Westward Seafoods	0.60		4,000	
TOTAL	17.87		44,514	