MEMORANDUM

TO:

Council, SSC and AP Members

FROM:

Clarence G. Pautzke

Executive Director

DATE:

November 27, 1991

SUBJECT:

Staff Tasking

ACTION REQUIRED

Review reports from the agency bycatch team, the IPHC and ADF&G regarding analysis of bycatch management measures and provide further direction as appropriate.

BACKGROUND

Strategic Bycatch Plans

In September the Council requested the Plan Teams to work on comprehensive solutions to the broader issues concerning fishery management. With respect to bycatch, the Council requested that a progress report be prepared for the December meeting, with another report in April.

An analytical Bycatch Team was formed to plan and prepare bycatch amendment packages. It consists of staff who currently are involved with the bycatch issue, who can commit substantial amounts of time to bycatch issues, and who can draw on additional resources as necessary to assist the Council in addressing bycatch issues successfully. This Bycatch Team is comprised of individuals from the Council staff, NMFS-AKR, NMFS AFSC, IPHC, and state agencies. The Team met on November 14 in Seattle and again via teleconference on November 25. A report from the Team will be made available at the Council meeting.

IPHC Report

At the September Council meeting, the Council requested the IPHC to indicate to the Council in December the extent to which they would be able to assist in the following halibut bycatch management analyses:

- 1. Reduce halibut PSC caps by 10% per year for 5 years;
- 2. Change accounting of halibut bycatch from halibut handled to mortality of halibut discarded; and
- 3. Preferentially allocate PSC to gears or fisheries with low bycatch rates.

Bob Trumble of the IPHC will present a report indicating the Commission's ability to analyze these proposals. A letter from IPHC is under $\underline{D-3(a)}$.

State of Alaska Report

Also at the September Council meeting, as part of a bycatch amendment package, the Council requested the State of Alaska to perform analyses of the following proposals:

- 1. Close the Eastern Gulf to all Trawling;
- 2. Improve salmon bycatch management measures in the BSAI and GOA;
- 3. Improve the herring bycatch management measures in the BSAI;
- 4. Prohibit bottom trawling adjacent to the Pribilof Islands; and
- 5. Use individual transferable quotas to allocate PSC limits among fishing operations.

A status report will be presented by ADF&G personnel regarding these proposals.

Terms of Reference for Plan Teams

The Council should discuss the structure of the teams and changes that should be made, if any, to enhance their responsiveness to Council needs. A discussion paper from the team chairmen is available under agenda item B-1, the Executive Director's Report.

COMMISSIONERS:

UNDA ALEXANDER FARRSVALLE B.C.
RICHARD LIBEAMISH NAVAMO, B.C.
RICHARD ELIASON STIKA AK
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INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AGENDA D-3(a) DECEMBER 1991 20 30x 05009 SEAMLE, NA 33145-2009

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November 27, 1991

Dr. Clarence Pautzke North Pacific Fishery Management Council P.O. Box 103136 Anchorage, Ak 99510

Dear Clarence:

At the September meeting, the Council asked the IPHC to report on our ability to provide analysis for several bycatch proposals recommended by the IPHC staff. The Commissioners discussed the issue at the IPHC Interim Meeting on November 26, 1991. They could not commit to providing amendment proposal analysis because of uncertainty in the Council's direction for bycatch management. The Commissioners heard a report for the Council's Bycatch Team that recommended emphasis on a long term approach to bycatch management rather than work on measures that address symptoms. The National Marine Fisheries Service was unable to tell us the resources needed to complete the long term work. IPHC Chairman Steve Pennoyer told us that he would have a proposal for consideration by the Commissioners at the Annual Meeting in January. The cost to the Commission for ammendment proposal analysis could be high, at a time when our resources are declining. We will evaluate at the Annual Meeting any proposal from the Council and the NMFS for IPHC funding of bycatch analysis, and consider the request along with other demands on our resources. Steve Pennoyer will be available to provide additional information at the Council meeting.

Sincerely,

Donald A. McCaughran Director

cc. Commissioners

BYCATCH TEAM REPORT

November 29, 1991

The following is the result a Bycatch Team meeting at the Alaska Fisheries Science Center on November 14th and a teleconference on November 26, 1991. Both the meeting and the teleconference were open to the public.

A. Bycatch Team

In September the Council requested the plan teams to work on comprehensive solutions to the broader issues concerning fishery management, such as limited access and bycatch. With respect to bycatch, the Council requested that the teams prepare reports for the December, January, and April Council meetings.

An analytical bycatch team was formed to plan and prepare both plan and regulatory amendments to the bycatch management regimes. It consists of staff who currently are involved with bycatch issues, who can commit substantial amounts of time to bycatch issues, and who can draw on additional resources as necessary to assist the Council in addressing bycatch issues.

This includes providing assistance in identifying bycatch problems and their solutions. The immediate focus of the Bycatch Team will be on the problem of crab, halibut, herring, and salmon bycatch in the groundfish fisheries. Eventually, the Team will assist the Council in addressing other bycatch problems such as the bycatch which may result in overfishing for some groundfish species and bycatch in other fisheries. The management measures that are developed as a result of the immediate focus of the Team are expected to be applicable to other bycatch problems.

The Team will report to the Council and the Team's reports will be reviewed by the SSC, AP, Council, public, and others. Each of seven agencies has been asked to provide one person to serve on the Team. Currently, the Team members are as follows:

Council Staff

Brent Paine

NMFS AKR

Sue Salveson

NMFS AFSC

Joe Terry (chairman)

Rebecca Baldwin (alternate)

IPHC

Bob Trumble

Gregg Williams (alternate)

ADF&G

Dave Ackley

ODF&W has not yet appointed a representative. WDF has assigned Sam Wright to provide peer review, but not work on the Bycatch Team directly. With two exceptions, alternate members have not been identified.

B. Council Requests/Expectations

In addition to giving Council and agency staff an opportunity to work on comprehensive solutions to the bycatch problems, the Council identified six specific bycatch management measures for development and analysis in 1992 as part of the next bycatch amendment package:

- 1. Change the sunset date for the king crab protection zones near Kodiak Island so that these measures will not expire at the end of 1992.
- 2. Close the Eastern Gulf to all trawling.
- 3. Improve salmon bycatch management measures in the BSAI and GOA.
- 4. Improve the herring bycatch management measures in the BSAI.
- 5. Prohibit bottom trawling adjacent to the Pribilof Islands.
- 6. Use individual transferable quotas to allocate PSC limits among fishing operations.

The Council requested the State of Alaska to help in analyzing the last five items. The Council also requested the IPHC to report on its willingness to provide the resources required to develop and analyze three measures proposed by IPHC staff. The proposals are listed below.

- 1. Switch to bycatch mortality limits in the BS/AI.
- 2. Impose scheduled reductions in halibut PSC limits.
- 3. Allocate groundfish TACs or PSC limits to fisheries with lower bycatch rates.

The Bycatch Team recommends that all the development and analysis of bycatch amendment packages be done under the direction of the Team. This includes the bycatch management measures assigned to the State of Alaska at the September meeting and the IPHC Staff proposal with which the IPHC may assist. If it is determined by the Council that the State's assignment with respect to the trawl closure of the Eastern Gulf is not principally a bycatch issue, that action would not be part of the bycatch amendment and, although the Bycatch Team would not have the principal responsibility for the analysis of that action, it could provide some assistance with that analysis.

The tentative schedule for the amendment package that would include these items is as follows. A list of bycatch management measures to be analyzed in 1992 and, potentially, implemented for 1993 would be available in December. The list would be changed as necessary in January. A draft EA/RIR/IRFA would be available for the Council to review in April. The draft would be improved based on comments during the April meeting and available for public review within a month after the April meeting. This would allow final action by the Council in June and implementation by January 1, 1993.

C. Review of Amendment 19/24

The Council is scheduled to take final action on Amendment 19/24 in December. Some or all of the Council's recommendations will be implemented by emergency rule and be in place by early 1992. The amendment package was briefly discussed by the Bycatch Team.

The updated halibut bycatch mortality rate estimates for the trawl fisheries and Amendment 19/24 will have effects on halibut bycatch mortality in the groundfish trawl fisheries. Estimates of the effects are summarized in an attachment.

D. Justification for Management Action

The Team prepared the following statement concerning the justification for management action in the groundfish fishery.

The total cost of bycatch includes benefits foregone from the species taken as bycatch, the total cost of actions taken by groundfish fishermen to reduce bycatch, and agency costs associated with bycatch management. In the absence of regulatory intervention, the total cost of bycatch will be too high, the levels of bycatch will be too high, the actions taken by groundfish fishermen to control bycatch will be inadequate, and the total cost will be borne principally by those who benefit from catch in the other fisheries. This is because, in the absence of regulatory intervention, groundfish fishermen bear much of the cost of controlling bycatch but do not receive the benefits. Therefore, some actions to control bycatch that would provide positive net benefits to society are not taken because, for the fisherman who decides what actions to take, the costs exceed the benefits. More succinctly, fishermen are making the wrong decisions from society's perspective because there are external benefits and costs. Therefore, regulatory intervention can increase the total benefits derived from the fisheries.

E. Goals and Objectives of Bycatch Management

The Team prepared the following goals and objectives statement.

The goal of bycatch management is to reduce bycatch to the level beyond which further reductions would be expected to increase the total cost of bycatch by preventing the groundfish OYs from being taken in a cost effective manner.

In interpreting this goal, costs are as broadly defined as is appropriate given the biological and socioeconomic goals and objectives of the FMPs, the MFCMA, the Halibut Act, Federal law, and international treaties. The costs include, those associated with: (1) not meeting conservation objectives; (2) disrupting traditional fisheries; (3) foregone catch; (4) decreased product prices; and (5) increased harvesting and processing costs.

The objectives of bycatch management are listed below.

- 1. Prevent overfishing.
- 2. Provide the groundfish fishery with incentives and the freedom to develop and use effective and efficient methods of reducing bycatch mortality.
- 3. Use bycatch management measures that minimize the cost of attaining specific reductions in bycatch.
- 4. Improve our ability to estimate bycatch mortality and its effects.
- 5. Assist the groundfish fishery in identifying effective methods of reducing bycatch rates and handling mortality rates.
- F. Characteristics of a Comprehensive Long-Term Solution to the Bycatch Problem for the Groundfish Fishery

To provide a better understanding of what is meant by a comprehensive long-term solution to the bycatch problem for the groundfish fishery and to prevent false expectations concerning such a solution, the Bycatch Team prepared the following statement.

The following are among the characteristics of a comprehensive long-term solution to the bycatch problem.

- 1. It is based on a well defined problem and goal.
- 2. It addresses the source of the problem, not just the symptoms.
- 3. It provides the flexibility required to:
 - a. be extended readily to other bycatch species and fisheries and
 - b. remain effective as biological and economic conditions change and as fishing operations respond to the bycatch management measures.
- 4. It is not based on data and information requirements that cannot be met.
- 5. It may be developed and implemented in stages so that the existing bycatch management measures can be supplemented or replaced gradually if necessary.
- 6. It will be constrained by a number of factors including:
 - a. funding and staffing,
 - b. the MFCMA, other laws, and international treaties. and
 - c. the race for fish associated with open access fisheries.
- 7. It will have consistent bycatch management measures between areas unless differences are justified.
- 8. It will maximize the net benefits that accrue to the nation from actions taken to control bycatch. The Council and Secretary must decide how to weight various benefits and costs. The weights given to different benefits and costs determine the net benefits of various alternatives. The benefits include reductions in the types of costs identified in the goal statement (Section E).

G. Definitions of Terms

In order to facilitate discussion of the issue and to avoid one potential source of confusion, the Team will be using the following definitions of commonly-used terms.

Bycatch:

Any species, size class, or sex that a fisherman is not attempting to harvest intentionally, under the current regulatory or economic environment.

Target fishery:

A management definition for regulatory use and enforcement purposes that

categorizes the aggregate activity of a fishing vessel during a fishing trip.

Cost:

This is not necessarily equivalent to monetary expenditures, but rather reflects the opportunity value foregone or alternate use of the resource. Components of cost could include use of time, effort, money, etc that reflect their foregone value. The measurements would be compatible with the types of costs listed in Section E.

Benefit:

Again this is not necessarily limited to actual monetary expenditures, but reflects a value or use gained from the resource.

Additional terms will be defined as is necessary.

H. Process for Selecting Short and Long-Term Alternatives

The Team recommends that the statements concerning the goal and objectives and the characteristics of a comprehensive long-term solution to the bycatch problem for the groundfish fishery be used to identify tentative solutions and that the list of measures to be considered then be narrowed based on feasibility with respect to:

- 1. time.
- 2. resources,
- 3. data.
- 4. legal issues, and
- other constraints.

I. Initial List of Bycatch Management Measures for the Team to develop and Analyze in 1992

Based on the above process for selecting alternatives for analysis, the Team identified three measures that represent potential intermediate steps that are compatible with a comprehensive long-term solution. They are:

- replacing bycatch limits with bycatch mortality limits in the BSAI;
- using individual bycatch quotas (IBQ) to allocate PSC limits among individual fishing operations; and
- 3. replacing the current incentive programs with a pay as you go program in which each individual groundfish fishing operations pays for its bycatch.

The last two measures are alternative market solutions. A brief introduction to these alternatives is presented in the attached working document. This initial presentation of these alternatives is not with the intent to start debate on whether either is a preferred approach, but rather to flesh out some optional features that may or may not be incorporated into the program. The relative merits of these two programs will only become clear once a comprehensive analysis is undertaken during 1992.

These three measures can address most of the problems identified in the long list of bycatch proposals that were submitted to the Council in response to its annual solicitation. A list of those proposals and an

indication of the extent to which the three measures respond to them is being prepared.

In September, the Council tasked staff with one specific bycatch management measure, tasked the State of Alaska with five measures, and asked for a report from the IPHC concerning its willingness to be tasked with three other measures (see Section B). The three measures identified in this section specifically include two of these nine measures and may be substitutes for all but three of the rest of the nine measures. The responses of the State and IPHC concerning the nine measures will affect which of the other seven measures will be developed and analyzed by the Bycatch Team in 1992. Written responses are expected to be available to the Council at its December meeting.

J. Data and Analytical Tools Available/Required

The Team will identify data and analytical tools available and required to evaluate the bycatch management measure changes to be considered.

K. Products, Schedules, and Assignments

The immediate task of the Team will be to begin analysis on the three measures listed in Section I and the other measures that the Council identifies in December. Although implementation of either market solution may be possible for 1993, there are issues that could prevent the implementation of either prior to 1994.

The products, schedules, and assignments will be developed more fully in subsequent reports. The following attended the Bycatch Team meeting November 14, 1991.

IPHC AFSC Bob Trumble and Gregg Williams Rebecca Baldwin and Joe Terry

AK Region

Steve Pennoyer and Sue Salveson

Council

Brent Paine

Public

Dave Fraser and George Anderson

The following participated in the Bycatch Team teleconference November 25, 1991.

IPHC

Gregg Williams

ADF&G **AFSC**

Dave Ackley and Paul Hooker Rebecca Baldwin and Joe Terry

AK Region Council

Sue Salveson

AK CFEC

Brent Paine

Public

Ben Muse and Kurt Schelle

Shari Gross (ANA), Brian Begler (Wards Cove), Steve Finley (Emerald Seafoods), Wally Pereyra (ProFish Int.), Bert Larkins (AFTA), Dave Olney,

Paul McGreger (AFTA), and Arni Thomson (ACC)

Working Document

Market Solutions

The Bycatch Team has identified two alternative market solutions to the bycatch problem in the groundfish fishery. They are:

- 1. use individual bycatch quotas (IBQs) to allocate PSC limits among individual operations, and
- 2. use a pay as you go (PAYG) program in which each individual groundfish fishing operation pays for its bycatch.

The objective of a market solution to the bycatch problem is to internalize the external costs of bycatch so that each fishing operation considers the cost of bycatch and, therefore, will tend to make the right decisions concerning the control of bycatch. A secondary objective may be to compensate the crab, halibut, salmon, and herring fishermen who bear the cost of bycatch in the groundfish fishery.

With an IBQ program, the external cost would be internalized because fishing operations either would have to purchase IBQs from those who are given IBQs for a year or they would have to use IBQs that they are given. In the former case the cost is what they pay for the IBQs. In the latter case, the cost is the income they forego from the sale of IBQs by using them themselves. In either case, fishing operations would pay for their estimated bycatch.

With a PAYG program, the external cost would be internalized by requiring each operation to pay for the bycatch that it is estimated to have taken. The price of bycatch would be based on an estimate of the impact cost per unit of bycatch.

An initial list of options for each of these two programs is presented below. For some sets of options, IBQ and PAYG are identical, for other sets of options, they are quite different.

Options for an IBQ Program

- 1. IBQs can be given away annually or the ongoing rights to annual IBQs can be given away be the government.
- 2. The retention of bycatch may continue to be prohibited or it may be permitted.
- 3. The transferable IBQs can be given to groundfish fishermen, other fishermen, or others.
- 4. Once it is determined which type(s) of persons will be given IBQs, the amount to be given to each person must be determined.
- 5. Transferability can be monitored but otherwise unregulated or it can be regulated. For example, the maximum price to be charged for IBQ may be regulated.
- 6. The total IBQs could be limited to the current PSC limits or they could be determined annually.

- 7. The current time/area closures could be supplemented or replaced by an IBQ program.
- 8. IBQs could be used with or without PSC allowances to separate fishing categories.

Options for the PAYG Program

- 1. The PAYG program can be used with the existing PSC limits and the allowances of the limits among the specific fisheries or it can be used in place of the PSC limits.
- 2. The retention of bycatch may continue to be prohibited or it may be permitted.
- 3. The payments made for bycatch can be used: 1) to meet directly the secondary objective of compensating crab, halibut, herring, and salmon fishermen; 2) to meet this objective indirectly by providing funds for fishery research, management or enhancement programs; or 3) to meet some other objective.
- 4. A PAYG program could be implemented by changing the MFCMA or by implementing an IBQ program with properly selected options. The former could be done by changing the part of the Act that authorizes the North Pacific Fisheries Research Plan. The latter may include price controls on IBQs or the IBQs could be given to a third party who would then make them available to groundfish fishermen at a fixed price.
- 5. The mechanism to establish the price per unit of bycatch must be determined.
- 6. The PAYG program can be designed to internalize the marginal cost of bycatch or both the marginal and total costs of bycatch.
- 7. The current time/area closures could be supplemented or replaced by a PAYG program.
- 8. A PAYG program could be used with or without PSC allowances to separate fishing categories.

Fundamental Difference between IBQ and PAYG Programs

The fundamental difference between the programs is that, with a PAYG program that supplements the PSC limits and their apportionment, groundfish operations become liable for bycatch as they take it rather than allowing them to purchase part of the limit in advance of taking bycatch. This would mean that a fishery would close as it does now once its PSC allowance is taken. No individual operation would be prohibited from fishing until the fishery closes. However, most operations will find it beneficial to fish differently when they have to pay for bycatch and some operations may decide not to participate in certain groundfish fisheries. Both types of changes will tend to reduce bycatch rates and increase the amount of groundfish that can be taken in a fishery before its PSC limit allowance is taken and, probably decrease bycatch.

With some IBQ programs, fishing operations that are not able to acquire adequate IBQs would be in violation and would not be permitted to participate in certain fisheries.

ESTIMATED REDUCTIONS IN HALIBUT BYCATCH MORTALITY RESULTING FROM 1992 MANAGEMENT MEASURES

Summary

The bycatch model used to estimate the combined effects of the enhancements to bycatch management proposed under Amendment 19 to the BSAI FMP suggests that there would be a 14% reduction in halibut bycatch. This combined with the 25% reduction in the trawl discard mortality rate, results in an estimated reduction in BSAI halibut bycatch mortality of about 35%.

Given a 2,000 mt trawl mortality limit in the GOA, the increase in the assumed trawl discard mortality rate from 50% to 65% would result in a 23 percent reduction in trawl bycatch (from 4,000 mt to 3,077 mt) and discard mortality (from 2660 mt to 2000 mt). This level of reduction in the allowable amount of halibut bycatch is expected to exceed the bycatch savings resulting from the proposed changes under Amendment 24 to the GOA FMP and, therefore, tend to decrease the amount of groundfish that can be taken in the trawl fisheries.

Bering Sea and Aleutian Islands (BSAI)

Both the new estimate of the halibut discard mortality rate for the BSAI trawl fisheries and the bycatch management measures of Amendment 19, if approved, are expected to reduce halibut bycatch mortality in the BSAI groundfish fisheries and, therefore, decrease the adverse effects of bycatch on the halibut fishery.

Through early November of 1991, it was estimated that the BSAI trawl fisheries had taken about 6,258 mt of halibut as bycatch and until recently it was assumed that this resulted in 6,258 mt of halibut bycatch mortality. Based on the updated estimate that the handling mortality rate is 75%, a more accurate estimate of the trawl bycatch mortality through late September is 4,694 mt. Therefore, the reduction in the 1992 halibut fishery quota due to 1991 bycatch in the BSAI trawl fishery will be reduced by 25%.

One measure proposed in Amendment 19 would impose a non-trawl gear halibut PSC limit that could result in a corresponding reduction in the trawl halibut PSC limit. Other measures in Amendment 19 are

expected to reduce halibut bycatch in the BSAI trawl fisheries by; (1) expanding the vessel incentive program, (2) closing more trawl fisheries once the other trawl fishery halibut PSC allowance is taken. and (3) more effectively closing bottom trawl pollock and cod fisheries once the bottom trawl PSC allowances are taken. Through early November of 1991, the 5,333 mt trawl fishery limit was exceeded by 925 mt. The last two changes would have prevented much of this overage. If these changes, combined with better in-season monitoring, would have eliminated the overage, there would have been a 14.8% reduction in halibut bycatch in the trawl fishery. The analysis developed for Amendment 19 estimated that the expansion of the existing incentive program to all trawl fisheries would have decreased halibut bycatch in those fisheries by 30.7% in 1990 and 1991 combined. In 1991, trawl fisheries not included under the incentive program (i.e., all trawl fisheries except the Pacific cod. rock sole, and yellowfin sole/other flatfish fisheries) accounted for about 20% of the total trawl bycatch of halibut. Therefore, including all trawl fisheries under the rate based incentive program would have resulted in about a 6.1% reduction (.2 x 30.7%) in the total trawl bycatch in 1991. Finally, it was estimated that a two to three week season delay would have decreased chinook bycatch substantially but increased halibut bycatch by about 2.3%.

Although these estimated savings of each part of Amendment 19 are not additive, the estimates suggest that, in combination or separately, the proposed changes could result in substantial reductions in halibut bycatch which coupled with the new estimate of the discard mortality rate could result in more than a 35% reduction in halibut bycatch mortality in the BSAI trawl fisheries. For example, if only the overage in 1991 had been prevented and the new discard mortality rate had been used, the bycatch mortality savings would have been about 36%. The other changes would have helped the trawl fishery keep within its PSC limit and perhaps would have prevented the limit from being taken.

The bycatch model, which was used to estimate the combined effects of most of these changes, indicates that there would be a 14% reduction in halibut bycatch. This estimated reduction assumed (1) all trawl fisheries are delayed until January 20, (2) the trawl halibut PSC limit is allocated to revised fishery categories as proposed, (3) the expansion of the incentive program is implemented and effective in reducing bycatch rates, and (4) a non-trawl gear halibut PSC mortality limit of 500 mt is imposed and the trawl halibut PSC limit is

reduced by 500 mt. Note that the last change had no effect on the model's estimate of the halibut bycatch savings because the other changes were estimated to reduce bycatch sufficiently that the halibut PSC limits were not taken. When the 14 percent reduction in halibut bycatch mortality estimated under Amendment 19 is combined with the 25% reduction in the trawl discard mortality rate, an estimated reduction in halibut bycatch mortality of about 35% results.

Gulf Of Alaska (GOA)

The measures in Amendment 24 are expected to reduce halibut bycatch in the GOA trawl fisheries by; (1) expanding the vessel incentive program, (2) more effectively closing bottom trawl pollock and cod fisheries once the bottom trawl PSC allowances are taken, and (3) delaying the rockfish fishery until mid July. These changes are expected to result in relatively small decreases in halibut bycatch rates that will make it easier for the trawl fishery to stay under its PSC limit, which in recent years has been set at 2,000 mt of halibut mortality. However, with the expected expansion of the bottom trawl fisheries in the Gulf, the 2,000 mt limit will probably constrain total groundfish catch. The revision of the estimated discard mortality rate for the trawl fleet from 50% to 65% will add to this problem. If the PSC limit remains at 2,000 mt of halibut mortality, the proposed changes in the bycatch management measures and the estimate of the discard mortality rate are expected to affect the trawl groundfish fishery but not the total halibut mortality in that fishery.

Given the existing 2,000 trawl mortality limit, the increase in assumed mortality rate means that the halibut bycatch that can be taken given that limit is reduced from 4,000 mt to 3,077 mt. Similarly the bycatch mortality would be reduced from 2660 mt to 2000 mt, or a 23% reduction in halibut bycatch and bycatch mortality. This level of reduction in the allowable amount of halibut bycatch is expected to exceed the bycatch savings resulting from the proposed changes of Amendment 24 and, therefore, tend to decrease the amount of groundfish that can be taken in the trawl fisheries if the limit remains at 2,000 mt.

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STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

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November 29, 1991

Dr. Clarence G. Pautzke, Executive Director North Pacific Fishery Management Council P.O. Box 103136 Anchorage, AK 99510

Dear Clarence:

I have received your letter from the Council requesting the State to analyze five bycatch proposals: Pribilof Closure, Bycatch ITQs, Herring Bycatch, Salmon Bycatch, and the Eastern Gulf Closure. It is encouraging to me that the Council and the National Marine Fisheries Service acknowledges the importance of addressing these critical conservation and management issues.

We are presently in the process of reviewing our own staff capabilities to deal with these proposals. Though the Alaska Department of Fish and Game possesses many qualified analysts, many are seriously over committed with existing priorities. Therefore, we are evaluating other options which would allow us to provide the required analysis for these proposals. I now believe that completion of some or all of these proposals would require some non-agency analytical help.

Once we have fully analyzed our staffing options, we will inform the Council of our intent to deal with these proposals.

Sincerely,

Carl L. Rosier Commissioner