

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke  
Executive Director *Cg*

DATE: April 7, 1997

SUBJECT: Bering Sea/Aleutian Islands Groundfish Management

ESTIMATED TIME  
2 HOURS

ACTION REQUIRED

- (a) Final review of forage fish amendment (BSAI and GOA).
- (b) Initial review of 2% jig allocation of Atka mackerel.
- (c) Approve VIP standards for second half of year.

BACKGROUND

(a) Forage Fish

In January 1995, the Council directed staff to prepare an EA/RIR to examine potential impacts of prohibiting a directed fishery on forage fish. Forage fish are an important ecosystem component, and are prey for marine mammals, seabirds, and commercially important fish species. Recent changes in predator abundance have raised concerns that forage fish may require additional protection.

In December 1996, the Council reviewed the draft EA/RIR, and released it for public review with several revisions suggested by the SSC and AP. A revised draft was distributed to the public and Council in early February, 1997. An executive summary is attached as Item D-2(a). NMFS staff will be on hand to review the analysis. Two main alternatives were examined, along with several options for Alternative 2. The alternatives are as follows:

Alternative 1: Status quo. Catch of forage fish could be retained under either the "other species" category TAC or as a "non-specified species".

Alternative 2: A "forage fish species" category would be established for both the BSAI and GOA groundfish FMPs. There are four options for this alternative.

- Option 1: Manage the forage fish species category as for other groundfish with a TAC, ABC, and OFL.
- Option 2: Restrict the forage fish species category to a bycatch only fishery. *5%*
- Option 3: Manage the forage fish species category as a prohibited species with no retention allowed.
- Option 4: Prohibit the sale, barter, trade, other commercial exchange, and processing of forage fish. *1%*

*Opt 2 = MRB of 1%*  
*Opt 4 = ends up in process = need parallel state*

(b) Atka Mackerel Jig Gear Allocation

In December 1996, the Council adopted for analysis a proposal from the Unalaska Native Fishermen's Association for a 2% allocation of Atka mackerel to jig gear. Such an allocation would provide more opportunity to the local small vessel jig gear fleet. Under the existing management program, directed fishing for Atka mackerel closes to all vessels, including those that fish with jig gear. An analysis of the proposal was mailed out to the Council family prior to the meeting, and an executive summary is provided as Agenda Item D-2(b)(1). Alternatives examined in the analysis include the following.

Alternative 1: Status quo, no action. The jig gear fleet would continue to compete with trawl gear operations for access to the Atka mackerel fishery.

Alternative 2: Allocate a portion of the annual Atka mackerel TAC specified for one or more of the Aleutian Island (AI) districts to vessels using jig gear.

Option 1: Allocate 2 percent of the Atka mackerel TAC specified for the Eastern AI/ Bering Sea subarea to vessels using jig gear.

Option 2: Allocate 1 percent of the Atka mackerel TAC specified for the Eastern AI/ Bering Sea subarea to vessels using jig gear.

Option 3: Allocate 2 percent of the Atka mackerel TAC specified for the BSAI.

Option 4: Allocate 1 percent of the Atka mackerel TAC specified for the BSAI.

Alternative 3: Authorize the exemption of vessels using jig gear from closures of the directed fishery for Atka mackerel.

Alternative 4: Establish separate Atka mackerel TACs for the Eastern Aleutian Islands District and the Bering Sea and authorize directed fishing for Atka mackerel in the Bering Sea only by vessels using jig gear.

(c) VIP Rate Standards

The Vessel Incentive Program (VIP) rate for halibut and crab Prohibited Species Catch (PSC) includes all trawl fisheries in both the BSAI and GOA. The grouping for VIP fishing categories is:

	<u>Fishery</u>	<u>PSC Species</u>	<u>Current Standards</u>
BSAI	midwater pollock	halibut	1.0 kg halibut / metric tons groundfish
BSAI	bottom pollock	halibut	7.5 kg (1st quarter), 5.0 (2-4 quarters)
BSAI	yellowfin sole	halibut	5.0 kg halibut / metric tons of groundfish
		red king crab	2.5 crab / metric tons of groundfish
BSAI	other trawl	halibut	30.0 kg halibut / metric tons groundfish
		red king crab	2.5 crab / metric tons of groundfish
GOA	midwater pollock	halibut	1.0 kg halibut / metric tons of groundfish
GOA	other trawl	halibut	40.0 kg halibut / metric tons of groundfish

Note that regulations specify that the vessel incentive program for the midwater pollock fishery becomes effective after the directed fishery for pollock by trawl vessels using non-pelagic gear is closed. Item D-2(c)(1) is a letter from the Regional Director containing the VIP rate standards used in the first half of 1997 and catch rates observed during past years for these fishery categories. The Council will need to recommend to the Regional Director the bycatch rate standards for these categories for the second two quarters of the 1997 fishery.

## EXECUTIVE SUMMARY

Forage fish species (FFS) are abundant fishes that are preyed upon by marine mammals, seabirds and other commercially important groundfish species. Forage fish perform a critical role in the complex ecosystem functions of the Bering Sea and Aleutian Islands management area (BSAI) and the Gulf of Alaska (GOA) by providing the transfer of energy from the primary or secondary producers to higher trophic levels.

Significant declines in marine mammals and seabirds in the GOA and the BSAI have raised concerns that changes in the FFS biomass may contribute to the further decline of marine mammal, seabird and commercially important fish populations. Members of the fishing industry have expressed concern that the current FMP structure with respect to FFS may allow unrestricted commercial harvest to occur on one or more of these species.

For purposes of this analysis forage fish species have been defined to include Osmeridae (which includes capelin and eulachon), Myctophidae, Bathylagidae, Ammodytidae, Trichodontidae, Pholidae, Stichaeidae, Gonostomatidae, and the Order Euphausiacea. These species have been grouped together because they are considered to be primary food resources for other marine animals and they have the potential to be the targets of a commercial fishery. These forage fish species are currently managed under the BSAI and GOA FMPs under either the "other species" or "non-specified species" categories.

This analysis examines two alternatives:

**Alternative 1: Status quo.** Catch of forage fish could be retained as groundfish under either the "other species" category TAC or as a "nonspecified species". Under this alternative a relatively unrestricted commercial fishery could develop for these species. Catch of those forage fish in the "other species" category are restrained by an overall TAC limit set for the whole category but any one of the forage fish species could be harvested in relatively large and unconstrained amounts within the "other species" TAC. The non-specified species would not be subject to any catch restrictions or reporting requirements.

**Alternative 2: A Forage Fish Species (FFS) category** would be established for both the BSAI and GOA FMPs. Four options for management of the FFS category are presented.

Option 1: Manage the FFS category as for other groundfish species with an ABC, TAC and overfishing limit.

Option 2: Restrict the FFS category to a bycatch only fishery. A directed fishery for the FFS would not be allowed but these species could be harvested as bycatch in other directed fisheries. A suggested 1 percent maximum retainable bycatch amount could be established for the forage fish species category in aggregate.

Option 3: Manage the FFS category as prohibited species. Under this option the incidental catch of these species would not be retained and any incidental catch would need to be returned to the sea with a minimum of injury, as is currently done with other prohibited species.

Option 4: The sale, barter, trade and any other commercial exchange, as well as the processing of FFS in a commercial processing facility, would be prohibited. However, some forage fish species are harvested in subsistence activities and this Option does not intend to prohibit subsistence take and traditional trade and barter of FFS.

Under Alternative 2, Option 1 entails the setting of an ABC and TAC amount for the FFS category. This may be difficult given the lack of information on the abundance of the forage fish species and the limited catch history.

In addition, an overfishing limit (OFL) would be established based on historical catch, which, when reached, could potentially result in the closure of other target species groups that incidentally harvest forage fishes. Option 2 would establish the FFS category as a bycatch only category with the harvest limited to 1 percent of the harvest of those species for which a directed fishery occurs. Option 2 would allow incidental harvest amounts of the FFS category while preventing a directed fishery from occurring and would not have the constraints of establishing an ABC, TAC or OFL. Management under Option 3 would treat the FFS category as prohibited species to be discarded at sea with a minimum of injury. This management strategy is typically reserved for economically important species other than federally managed groundfish. Option 3 could result in unnecessary discards and cause an unnecessary burden to catcher vessels that do not sort at sea and to processors who must handle these prohibited species. Option 2 would accomplish the objective of preventing the establishment of a directed fishery on forage fish, while minimizing any unnecessary discards and avoiding the problems associated with establishing an ABC, TAC and OFL amount. Option 4 would prevent a directed commercial fishery from developing on any of the FFS; while avoiding the problems associated with Option 1 or 3. Option 4 would also alleviate the potential for any "topping-off" activities that may be associated with a bycatch only status, as outlined under Option 2.

Based on historical information, the total burden to the Alaska fishing industry resulting from restricting a fishery on the FFS species would be minimal because a total of only 6 vessels have reported targeting any species in this proposed category from 1984-1994, no annual commercial fishery has been established, and market availability for capelin varies.

## Executive Summary

At its December 1996 meeting, the Council reviewed proposals received from management agencies, the fishing industry, conservation groups, and other interested members of the public for changes to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands (FMP) or regulations implementing the FMP. One proposal received from the Unalaska Native Fishermen's Association requested that 2 percent of the TAC annually specified for Bering Sea Atka mackerel be allocated to vessels using jig gear. The purpose of this proposal would be to provide more opportunity to a local small-vessel jig gear fleet to fish for Atka mackerel and supply a bait fishery and a small, but allegedly growing fresh fish market for this species, without direct competition from the large trawl fleet that harvests Atka mackerel.

Under the existing FMP, a closure to directed fishing for Atka mackerel applies to all vessels. Thus vessels using jig gear are prevented from directed fishing for Atka mackerel once these directed fishing closures are effective, although bycatch amounts of Atka mackerel may be retained during a fishing trip equal to 20 percent of the retained amount of other species open to directed fishing. Atka mackerel may not be retained on board a vessel once Atka mackerel becomes a prohibited species upon the attainment of TAC or because of overfishing concerns for other species taken as bycatch in the Atka mackerel fishery.

Vessels using trawl gear harvest over 99 percent of the available Atka mackerel. In 1994 and 1995, 15 and 19 vessels using jig gear harvested 36 and 13 metric tons (mt) of Atka mackerel, respectively, in the combined Eastern Aleutian Islands District/ Bering Sea management area. All of this harvest occurred in the southern Bering Sea (reporting areas 519 and 518). These amounts equate to 0.22 percent and 0.09 percent of the harvest in the Eastern AI/Bering Sea during these 2 years. Based on ADF&G fish tickets, no Atka mackerel were harvested by vessels using jig gear in 1996, although the reasons for this are not clear. Vessels using jig gear have not fished in the Central or Western AI districts, which is not surprising considering that most vessels (71 percent) permitted to use this gear type are less than 60 ft LOA.

### Alternatives Considered

**Alternative 1:** Status quo, no action. The jig gear fleet would continue to compete with trawl gear operations for access to the Atka mackerel fishery.

**Alternative 2:** Allocate a portion of the annual Atka mackerel TAC specified for one or more of the Aleutian Island (AI) districts to vessels using jig gear.

- Option 1: Allocate 2 percent of the Atka mackerel TAC specified for the Eastern AI/ Bering Sea subarea to vessels using jig gear.
- Option 2: Allocate 1 percent of the Atka mackerel TAC specified for the Eastern AI/ Bering Sea subarea to vessels using jig gear.
- Option 3: Allocate 2 percent of the Atka mackerel TAC specified for the BSAI.
- Option 4: Allocate 1 percent of the Atka mackerel TAC specified for the BSAI.

**Alternative 3:** Authorize the exemption of vessels using jig gear from closures of the directed fishery for Atka mackerel. If Atka mackerel becomes a prohibited species because of the attainment of TAC or overfishing concerns, this species could not be retained by vessels using any gear type, including jig gear.

**Alternative 4.** Establish separate Atka mackerel TACs for the Eastern Aleutian Islands District and the Bering Sea and authorize directed fishing for Atka mackerel in the Bering Sea only by vessels using jig gear. If a prohibition of directed fishing for Atka mackerel by non-jig vessels is deemed unnecessary, this alternative could be implemented under the annual groundfish specification process.

The potential total revenue to vessels using jig gear that results from an allocation of Atka mackerel under Alternative 2 could range from \$ 88,000 to \$ 177,000 annually, depending on the percentage of TAC allocated to the jig gear fleet and assuming that all Atka mackerel caught are retained and delivered shoreside. These results are intended to show a relative potential for revenue. In reality, these results overstate the potential gains to these vessels because of physical limitations in their ability to actually harvest the amount of Atka mackerel allocated to them and the assumption that all Atka mackerel harvest would be retained.

Similarly, the potential loss to vessels using trawl gear to harvest Atka mackerel in at-sea processing operations (\$153,000 - 306,000) likely is overstated under Alternative 2 to the extent that a portion of the Atka mackerel harvested is not retained or to the extent that TACs or TAC allocations are not fully harvested during a year. Regulatory provisions that would allow unharvested portions of the jig gear allocation to be reallocated to vessels using other gear types (i.e., the trawl gear fishery) may reduce potential losses to the trawl fleet that could result from an allocation of Atka mackerel to jig gear vessels. Conversely, any reallocated amounts likely would be so small relative to the fishing capacity of the trawl fleet that little or no additional fishing time would result.

Under Alternative 2, option 2 most closely reflects historical needs of the jig gear fleet, although this option still would allocate an amount of Atka mackerel to vessels using jig gear that exceeds by 7 times the largest harvest of this species by the jig gear fleet as recorded in 1994 on ADF&G fish tickets (36 mt). The extent to which the jig fleet would have expanded its historical harvesting activities for Atka mackerel but was preempted from doing so because of fishery closures is not known. Conversely, option 3 seems to provide an unjustified excess of Atka mackerel relative to historical needs. Furthermore, access to fishing grounds west of the Eastern AI district may be increasingly difficult for the small boat jig-gear fleet and the potential benefits to the jig gear fleet of allocations of Atka mackerel in the Central and Western AI likely would not be realized for this reason.

Alternative 4 most closely reflects the status quo alternative while providing for increased opportunity for a near-shore jig fishery in the southern Bering Sea. This alternative would not address jig gear exemption concerns if the jig gear fishery expanded beyond the southern Bering Sea into the Aleutian Island Districts. To date, however, the nature of the bait fishery for Atka mackerel suggests that expansion is unlikely in the near future. Vessels using trawl, pot, or hook-and-line gear in the Bering Sea catch relatively small bycatch amounts of Atka mackerel that typically are not retained. The directed fishery for Atka mackerel with trawl gear occurs east of the southern Bering Sea in the Aleutian Islands districts and would not be directly impacted under Alternative 4. The current maximum retainable bycatch (MRB) percentage for Atka mackerel relative to other groundfish species is 20 percent. This MRB percentage would allow for the retention of bycatch amounts of Atka mackerel in the Bering Sea by non-jig fishing operations should the vessel operator desire.

The potential economic impact on catcher vessels under the proposed action would depend upon the alternative implemented. The greater the amount of Atka mackerel allocated to jig gear vessels, the greater the potential economic gain to this sector of the harvesting fleet. These gains could exceed 5 percent of existing gross annual revenues currently experienced by this fleet. Although quantitative data are not available to assess whether a significant positive economic impact would occur, a 5 percent gain in total annual revenues is not unreasonable for the small vessel jig gear fleet.

The benefits to the jig gear fleet under Alternative 4 would be similar in scope to those discussed for Alternative 2. The compensatory impact on the trawl fleet likely would be minimized because no changes are proposed to the management of the Atka mackerel fishery in the Aleutian Islands districts, the area where the directed trawl fishery for Atka mackerel occurs. Alternative 4 also provides enhanced flexibility to accommodate changing needs of the jig gear fishery by not limiting it to a predetermined quota.

Any loss in gross annual revenues that would be incurred by trawl catcher vessels under Alternatives 2, 3, or 4 likely would not be significant (exceed 5 percent of a vessel's total annual revenue) because these vessels are larger (> 60 ft LOA) and participate in other lucrative groundfish fisheries. Potential economic impacts to trawl vessels under Alternative 2 could be minimized to the extent that the authority to allocate Atka mackerel to vessels using jig gear is restricted to the Eastern AL/Bering Sea area (options 1 or 2) or if provisions are established that provide for the reallocation of unharvested amounts of the jig gear allocation to vessels using other gear types within a time frame that would allow for its harvest.

Significant positive impacts on the small jig gear fleets could occur under Alternatives 2, 3 or 4 to the extent the jig gear fleet realized potential gains through increased harvests of Atka mackerel.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668


April 8, 1997

Mr. Richard B. Lauber  
Chairman, North Pacific Fishery  
Management Council  
605 W. 4th Avenue  
Anchorage, Alaska 99510

Dear Rick,

Bycatch rate standards for trawl fisheries under the Pacific halibut and red king crab vessel incentive program during the second half of 1997 are scheduled to be published in the Federal Register by July 1, 1997. A summary of 1993 - 1997 observer data on fishery bycatch rates is listed in the attached table for review by the Council. Recent halibut and crab bycatch rates in the groundfish trawl fisheries do not appear to warrant a change in the bycatch rate standards recommended by the Council during the past several years. Unless the Council recommends a change in these standards, we will continue to use the halibut and red king crab bycatch rate standards listed in the attached table for the second half of 1997.

Sincerely,

  
Steven Pennoyer  
Administrator, Alaska Region

Attachment





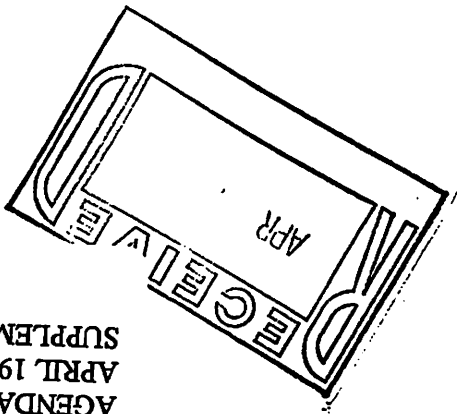
1993 - 1997 (through March 1997) observed bycatch rates, by quarter, of halibut and red king crab in the fishery categories included in the vessel incentive program. Also listed are the bycatch rate standards established since 1995.

Halibut Bycatch (Kilograms Halibut/metric ton Allocated Groundfish Catch)

Fishery and quarter	Bycatch Rate Standards	Observed Bycatch Rates				
		1993	1994	1995	1996	1997
BSAI Midwater Pollock						
QT 1	1.0	0.95	0.17	0.05	0.10	0.14
QT 2	1.0	0.20	0.01	0.07	0.02	
QT 3	1.0	0.06	0.30	0.12	0.09	
QT 4	1.0	0.12	0.06	0.19	0.21	
Year to date		0.43	0.22	0.09	0.12	
BSAI Bottom Pollock						
QT 1	7.5	7.49	2.71	1.93	2.22	1.36
QT 2	5.0	2.72	29.67	5.50	12.84	
QT 3	5.0	0.84	2.61	1.98	0.41	
QT 4	5.0	25.28	0.38	0.14	0.64	
Year to date		6.86	2.66	1.92	1.40	
BSAI Yellowfin sole						
QT 1	5.0	****	2.70	3.67	2.89	5.83
QT 2	5.0	13.02	5.93	4.54	4.19	
QT 3	5.0	1.82	1.15	2.93	6.86	
QT 4	5.0	3.34	4.57	4.49	12.41	
Year to date		6.18	3.92	3.67	5.25	
BSAI Other Trawl Fisheries						
QT 1	30.0	8.80	9.02	11.27	10.66	8.74
QT 2	30.0	13.69	19.94	16.93	12.71	
QT 3	30.0	4.66	3.30	10.33	6.37	
QT 4	30.0	3.91	4.00	21.23	34.24	
Year to date		9.25	12.04	12.96	11.18	
GOA Midwater Pollock						
QT 1	1.0	0.01	0.06	0.34	0.26	0.02
QT 2	1.0	0.02	0.07	0.05	0.04	
QT 3	1.0	0.03	0.55	0.54	0.03	
QT 4	1.0	0.05	0.04	0.13	0.47	
Year to date		0.03	0.17	0.24	0.12	
GOA Other Trawl fisheries						
QT 1	40.0	34.49	19.97	16.55	14.65	19.97
QT 2	40.0	26.80	42.78	63.93	49.01	
QT 3	40.0	33.90	26.49	18.48	24.71	
QT 4	40.0	37.81	43.76	48.33	46.90	
Year to date		33.04	29.91	28.45	27.36	

Zone 1 Red King Crab Bycatch Rates  
(number of crab/mt of allocated groundfish)

BSAI yellowfin sole						
QT 1	2.5	****	0.68	0.28	0.00	0.08
QT 2	2.5	2.19	0.23	0.02	0.01	
QT 3	2.5	0.00	0.00	0.00	0.00	
QT 4	2.5	0.27	0.00	****	0.00	
Year to date		1.30	0.33	0.18	0.00	
BSAI Other Trawl						
QT 1	2.5	1.78	1.78	0.31	0.14	0.44
QT 2	2.5	0.02	0.02	0.00	0.00	
QT 3	2.5	0.00	0.00	0.00	0.08	
QT 4	2.5	****	0.00	0.00	0.00	
Year to date		1.18	1.18	0.30	0.10	



March 31, 1997

North Pacific Fishery  
Management Council  
605 West 4th Ave Suite 306  
Anchorage, Alaska 99501-2252

Re: Two percent jig allocation  
of Atka Mackerel

Dear N.P.F.M.C.

I'm writing to Request you grant  
us the 2% jig allocation.

The amount it will hurt the trawl  
fleet will be minute, whereas  
the amount it could help the  
local jig fleet could be significant

I urge you to vote in favor of  
a jig allocation that can not be  
hindered because of someone  
else over fishing their quota.

Thank You

Greg Moyer  
FN Northern Light

# Alaska Groundfish Data Bank

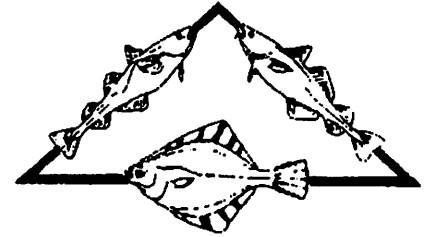
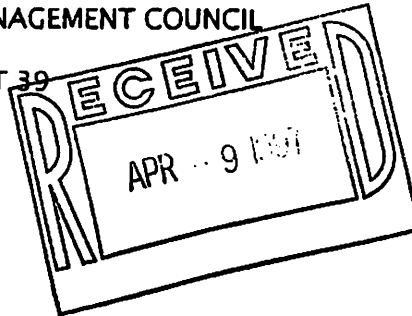
P.O. Box 2298 • Kodiak, Alaska 99615

TO: RICK LAUBER, CHAIRMAN  
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

RE: COMMENTS ON AMENDMENT 39

DATE: APRIL 9, 1997

SENT BY FAX: 2 PP



## AGDB COMMENTS REGARDING FORAGE FISH MANAGEMENT - AMENDMENT 39

The members of Alaska Groundfish Data Bank support Option 4: prohibiting the sale, barter, trade or the processing in a commercial facility of forage fish. This wording achieves the objective of eliminating the potential of a forage fish fishery and avoids the problems noted in the EA/RIR with regard to options 1 or 3.

Option 2, which restricts the forage fish category to a bycatch fishery, is not without problems: There is little data on which to set a bycatch limit, enforcement may be required to spend time dealing with any overages of that bycatch limit and additional record keeping would be required by the industry and NMFS.

The species listed in the EA/RIR as species form a group which appears to be important to the health of the ecosystem and the production of many of the species now commercially fished as well as birds and marine mammals. Prohibiting the commercial use of forage fish at this time is a pro-active move of which the Council can be proud. Harvesting both predators and prey is akin to burning a candle at both ends.

### DISPOSITION OF FORAGE FISH DELIVERED OR TAKEN AS BYCATCH

In review of the proposed EA/RIR for amendment 39 AGDB members noted that the language in option 4 would prohibit making meal out of any forage fish taken as bycatch as making meal is a commercial activity. The alternatives are (1) require that all forage fish be sorted out of the catch before delivery and dumped at sea (2) require that all forage fish delivered as bycatch be sorted out at the processing plant or (3) allow a limited amount of forage fish to be processed into meal.

Since forage fish are small and difficult for a catcher vessel to sort out of the catch prior to delivery to a processing plant, requiring that all forage fish be returned to the sea before delivery is not practical. Requiring plants to return forage fish to the sea results in additional costs for shorebased operations and may violate DEC or EPA regulations. The least onerous option appears to be to allow some meal production to take care of any forage fish delivered as bycatch.

AGDB suggests that the amendment be revised by adding the wording: "To facilitate disposition of forage fish taken as bycatch, forage fish may be used in meal production, but cannot exceed 1% (0.01) of the total amount of product (waste and whole fish) used for meal within each calendar quarter."

AGDB COMMENTS ON FORAGE FISH AMENDMENT - APRIL 9, 1997 - PAGE 2 OF 2

We suggest accountability be done on a quarterly basis to reduce enforcement responsibilities. The figure of 1% is somewhat arbitrary, but seems low enough to discourage any attempt to target forage fish for meal production.

The objective is to maintain the status quo in regard to the use of forage fish in Alaska. We do not feel that maintaining the status quo requires stringent or invasive regulations.

We thank NMFS and ADF&G for developing this proposal and the North Pacific Fishery Management Council for considering the proposal.

Sincerely,



Chris Blackburn, Director  
Alaska Groundfish Data Bank