

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver 
Executive Director

ESTIMATED TIME 6 HOURS

DATE: January 20, 2003

SUBJECT: Essential Fish Habitat

ACTION REQUIRED

- (a) Receive progress report on EIS development.
- (b) Review staff clarification of mitigation alternatives.
- (c) Receive EFH Committee report.

BACKGROUND

The Council adopted final alternatives for the EIS analysis during its December meeting (motion attached as Item C-4(a)) and a suggested methodology to proceed with the analysis. The Council directed staff within the EIS to compare all of the alternatives to a scenario (baseline) that includes status quo conditions absent all area closures, effort reduction, gear measures and rationalization programs. A draft EFH Baseline discussion paper was prepared by staff and is attached as Item C-4(b).

A preliminary draft of the Supplemental Environmental Impact Statement (SEIS) was scheduled for initial review in April 2003. However, it has become apparent that more time will be necessary to prepare the analysis. Nevertheless, the terms of the settlement agreement require that a Draft SEIS be available for public review by August 1, 2003. Staff will provide a report on the status of the project.

Review Mitigation Alternatives

At this meeting, the Council needs to finalize the boundaries for closure areas included in the mitigation alternatives. Staff will provide maps depicting closure areas designated under these alternatives.

EFH Committee Comments

The EFH Committee met in Seattle on January 26, 2002. Staff will provide a draft Committee report to the Council during the meeting.

**Essential Fish Habitat
December 2002, Final Council Motion**

The Council's adopted EFH problem statement is as follows:

The productivity of the North Pacific ecosystem is acknowledged to be among the highest in the world. The Council intends to ensure the continued sustainability of FMP species by considering additional, precautionary and reasonable management measures. Recognizing that in the North Pacific, potential changes in productivity may be caused by fluctuations in natural oceanographic conditions, fisheries, and other, non-fishing activities, the Council intends to take action in compliance with the requirements of the Magnuson-Stevens Act to protect the productivity of FMP species by considering additional measures to reduce adverse effects of fishing activities on habitat essential to managed species.

To accomplish this task, the Council will undertake an EIS analysis to:

1. Identify and designate Essential Fish Habitat,
2. Develop designation criteria for identification of Habitat Areas of Particular Concern, and
3. Consider implementation of additional management measures to minimize, to the extent practicable, adverse effects of fishing on EFH. [Intent of Council is for those FMP species where data is available, habitat measurers should be applied of minimize effects of fishing on habitat essential to continued productivity of the managed species.]

Additionally, the Council adopted the EFH Committee alternatives for EFH and HAPC designations.

The Council adopted the following EFH Mitigation Alternatives modified from the Committee and AP recommendation:

Alternative 1: Status quo. No additional measures would be taken at this time to minimize the effects of fishing on EFH.

Alternative 2: Gulf Slope Bottom Trawl Closures: Prohibit the use of bottom trawls for rockfish in 13 designated areas of the GOA slope (200m-1000m), but allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 3: Bottom Trawl Gear Prohibition for GOA Slope Rockfish on upper slope area (200-1,000m). Prohibit the use of bottom trawl gear for targeting GOA slope rockfish species on upper slope area (200-1000m), but allow vessels endorsed for trawl gear to fish for slope rockfish with fixed gear or pelagic trawl gear.

Alternative 4: Bottom Trawl Closures in All Management Areas: Prohibit the use of bottom trawl gear in designated areas of the Bering Sea, Aleutian Islands, and Gulf of Alaska. Bottom trawl gear used in the remaining open areas would be required to have disks/bobbins on trawl sweeps and footropes.

Bering Sea: Prohibit the use of bottom trawl gear for all groundfish fisheries in the Bering Sea except within a designated "open" area. The open area is designated based on historic bottom trawl effort. Within the open area, there would be a rotating closure to bottom trawl gear in 5 areas to the

west, north and northwest of the Pribilof Islands. Closure areas would be designated in Blocks 1,2,3,4 and 6 as identified by the EFH Committee, with 4 year closed periods for 20% of each block. After 4 years, the closed portion of each block would re-open, and a different 20% of each block would close for 4years, and so on thereafter. After 20 years, all area within each block would have been subject to a 4year closure, and the rotating closure areas would start over.

Aleutian Islands: Prohibit the use of bottom trawl gear for all groundfish fisheries in designated areas of the Aleutian Islands. Closure areas would be designated in the areas of Stalemate Bank, Bowers Ridge, Seguam Foraging Area, and Semisopchnoi Island.

Gulf of Alaska: Prohibit the use of bottom trawl gear for rockfish fisheries on 13 designated sites of the GOA slope (200m-1000m). Allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 5: Expanded Bottom Trawl Closures in All Management Areas: Prohibit the use of bottom trawl gear in designated areas of the Bering Sea, Aleutian Islands, and Gulf of Alaska. Bottom trawl gear used in the remaining open areas would be required to have disks/bobbins on trawl sweeps and footropes.

Bering Sea: Prohibit the use of bottom trawl gear for all groundfish fisheries in the Bering Sea except within a designated "open" area. The open area is designated based on historic bottom trawl effort. Within the open area, there would be a rotating closure to bottom trawl gear in 5 areas to the west, north and northwest of the Pribilof Islands. Closure areas would be designated in Blocks 1,2,3,4 and 6 as identified by the EFH Committee. These five blocks will be subdivided into three equal strips, representing 33 1/3 % and each block would be closed for 4 years. After 4 years, the closed area would re-open, and the next 33 1/3 % area of each block would close for 4 years, and so on thereafter.

Aleutian Islands: Prohibit the use of bottom trawl gear for all groundfish fisheries in designated areas of the Aleutian Islands. Closure areas would be designated in the areas of Stalemate Bank, Bowers Ridge, Seguam Foraging Area, Yunaska Island , and Semisopchnoi Island. These closure areas extend to the northern and southern boundaries of the AI management unit.

Suboption for Aleutian Islands: Oceana's Aleutian Seafloor Habitat Protection Alternative dated Dec. 6, 2002. Close areas to bottom trawling that have high coral and sponge bycatch rates and low target species CPUE and reduce TAC by amount that historically came from that those. No expansion of bottom trawl fisheries to new areas. Institute area-specific coral/ sponge bycatch limits that close specific areas if exceeded. If implemented it would include the following actions: Expand observer coverage to 100%, utilize the CADRES program, and require each vessel to have VMS.

Additionally the proposal requests a comprehensive plan for research and monitoring that would include: Seafloor mapping, benthic research, and habitat impacts of all bottom tending gears, annual habitat assessment reports, experimental fishing permits to identify additional open areas.

Gulf of Alaska: Prohibit the use of bottom trawl gear for all groundfish fisheries on 11 designated sites of the GOA slope (200m-1000m). Additionally, prohibit the use of bottom trawls for targeting GOA slope rockfish on the GOA slope (200-1000 meters), but allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 6: Closures to All Bottom Tending Gear

Prohibit the use of all bottom tending gear (dredges, bottom trawls, pelagic trawls that contact the bottom, longlines, and pots) within approximately 20% of the fishable waters (i.e., 20% of the waters shallower than 1,000m) in each of the regions described below.

Gulf of Alaska: The Gulf of Alaska would be subdivided into 3 regions: Western (corresponding to regulatory area 610), Central (areas (620 and 630), and Eastern (areas 640 and 650).

Aleutian Islands: The Aleutian Islands would be subdivided into 4 regions: Western (corresponding to regulatory area 543), Central (area 542), Eastern (area 541), and two smaller Bering Sea regulatory areas adjacent to the Aleutians (combination of areas 518 and 519).

Bering Sea: The Bering Sea would be subdivided into 3 regions south of St. Lawrence Island denoting each of the predominant substrate types (sand, sand/mud, and mud) and taking into consideration the varying depth distribution of each substrate.

The closed areas would be identified based on the presence of habitat such as high relief coral, sponges, and *Boltenia*, with emphasis on areas with notable benthic structure and / or high concentrations of benthic invertebrates that provide shelter for managed species. The closed areas would include a mix of relatively undisturbed habitats and habitats that currently are fished. Within a given region, existing area closures could comprise all or a portion of the closed areas for this alternative.

- In addition:**
- a) Consider the relative advantages to EFH of rationalization programs.
 - b) Each mitigation alternative shall have an experimental model developed to accomplish monitoring and research. Team EFH will be tasked to evaluate these experimental models.
 - c) The Council requests the NPRB to call for proposals and fund research that evaluates the recovery time and habitat recovery process within the Bering Sea rotating areas (i.e. – is three years more than sufficient for recovery?)
 - d) The Council requests the Joint BOF/Council committee to develop a shared process that sets up stakeholder meetings to facilitate coordinated BOF/Council evaluation of HAPC and MPA.
 - e) The Council directs staff in the EIS to compare all of the alternatives to a scenario (baseline) that includes status quo conditions absent all area closures, effort reduction, gear measures and rationalization programs.

The following points should be included/addressed in the EIS as practicable:

1. Clarification that task of EFH mitigation measures is to reduce habitat degradation that has or has the high probability of negatively impacting the productivity of FMP species.
2. An assessment of the productivity of the FMP species using the SAFE documents and other available information,
3. Information or evidence linking any adverse effects on the productivity of the FMP species to fishing.
4. Evidence that the proposed mitigation measures will properly mitigate specific adverse impacts to FMP species.

5. An assessment of the level of certainty of information used to determine adverse impacts, linkages to fishing and effectiveness of proposed measures to mitigate specific adverse effect.
6. A cost benefit analysis to determine the "*practicability and consequences*" of adopting proposed mitigation measures. This should also include an assessment of unintended consequences such as increased bycatch and bycatch-triggered closures.
7. An assessment of the costs and benefits of measures already imposed to protect the FMP species including the Bering Sea crab and Pribilof habitat closure areas, salmon, herring, walrus and Steller sea lion closures, and similar closures in the GOA including the Eastern GOA trawl closure and the Mt. Edgecomb Pinnacles and any other closed areas that restrict impact on local habitat.
8. The two million metric ton cap in the BSAI should also be factored in as an existing mitigation measure since the proposed alternatives recommend that TAC reductions should accompany area closures to further protect habitat by reducing fishing effort.
9. A table that compares the proposed mitigation measures, any adverse impacts to FMP species, certainty of scientific information used to determine adverse impact, projected effectiveness and cost of measures to coastal communities and industry participants and projected unintended consequences.
10. An evaluation and comparison of each alternative to the requirements of the National Standards.

Other Recommendations

1. If sea lion closed areas in the Bering Sea and Aleutian Islands are removed in the future, the Council will initiate an amendment to consider whether "Habitat Areas of Particular Concern" and associated measures should be developed for some or all these areas before they are opened.
2. Council concurs with the EFH Committee that the Old Alternative 5 (closure areas for all bottom tending gear in areas with gorgonian corals, sponges, and sea onions, from the October 2002 motion) be a starting point for identifying HAPC, once the Council and Committee have adopted a HAPC process.
3. Scallop and Aleutian Islands longline crab fisheries will be considered more thoroughly under HAPC.
4. Attempt to incorporate the SSCs comments to the extent possible.

EFH Baseline
Draft Discussion Paper
prepared by staff 1/17/03

In December 2002, the Council requested that the EIS being prepared for EFH contain an evaluation of status quo conditions absent all area closures, effort limitations, gear restrictions, and rationalization programs that contribute to habitat protection measures. This will not be an alternative per se, but would allow the Council to compare all the alternatives, including status quo, against a baseline of no-habitat protection measures. This discussion paper was prepared to initiate discussion by proposing some additional details of this evaluation.

Intent: The intent of a baseline evaluation is to provide a measure of the costs and benefits of the status quo relative to habitat protection. Additionally, it provides a baseline from which to compare all alternatives, so as to better understand the incremental benefits of all the alternatives relative to the history of actions taken by the Council to protect fish habitat. Question to Council: Does this accurately reflect your intent?

Measures to be Included: The baseline would include all status quo conditions absent habitat protection offered by gear restrictions, area closures, harvest limits, effort limitation, rationalization programs, and other regulations. Question to Council: This list of baseline measures includes all measures that protected habitat to some degree. Is this list complete, or are there other measures that should be excluded or included?

Specifically, the measures excluded from the baseline would be as follows:

Gear restrictions: BSAI pelagic trawl gear for pollock, biodegradable panels on pots, scallop dredge width restrictions, allowable gear definitions (e.g. sunken gillnets, explosives, hydraulic dredges not allowed). [4measures]

Area closures: Pribilof trawl closure, Bristol Bay trawl closure, Red King Crab Savings Area, Kodiak trawl closures, Southeast Alaska trawl closure, Cook Inlet trawl closure, Sitka Pinnacles Marine Reserve, Steller sea lion and Walrus closures, seasonal and trigger trawl closure areas (Area 516, chum salmon savings area, other salmon and herring areas), scallop dredge closure areas, State water trawl and dredge closures. [11 measures or groups of measures]

Harvest limits: Conservative quotas for groundfish, forage fish prohibition. [2 measures]

Effort limitation: groundfish and crab moratorium, scallop moratorium, groundfish and crab license limitation program, scallop license limitation program. [4 measures]

Rationalization programs: halibut and sablefish IFQ, groundfish and crab CDQ, AFA Bering Sea pollock. [3 measures]

Other measures: Prohibition on roe stripping, EFH designation. [2 measures]

Evaluation Methodology for Each Measure: For each measure, the EIS would provide a background and history, along with details from the analysis. Additionally, there needs to be some kind of ranking or scaling factor to evaluate the value of each measure as an EFH mitigation measure, with rationale provided in text. The history of each measure would be provided as text (along with a figure for closure areas). There would also be a summary table that lists some of the significant aspects of each measure: year implemented, size of area closed, habitat types involved, estimated cost of implementing, relative value for EFH protection [e.g., high, medium, low, or none]. An example of such a table is provided as Table 1.

Comparison of the Baseline and Alternatives: The baseline and the alternatives would be compared in both text and tables. The comparison would focus on the degree of habitat protection offered under the baseline, the status quo, and the alternatives. An example of a comparison table is provided as Table 2. We would also want to have a table showing the criteria for assigning relative protection of habitat under the alternatives [or, we could just use the significant/ conditionally significant/ not significant determinations used in Chapter 4.3].

Note to Council: The staff discussed how we might prepare some type of economic analysis (e.g., a cost-benefit analysis) to assist with quantifying the economic and socioeconomic effects of the Council's baseline query. Quantification, by definition, requires empirical observations of the behavior being evaluated. After careful review and consideration of available data sources, the staff concluded that it would be impossible to prepare a quantitative analysis of what would have happened if the measures were not implemented -- there is simply no empirical data which would support a "quantitative" estimate to predict how the fisheries would be operating today, absent this twenty or more years of sequentially implemented management measures. Sector/fleet composition, entry and exit patterns, fishing schedules, effort levels, product forms and markets, private and public capital investments, among other decisions, have all been shaped to accommodate each subsequent management action. Furthermore, each successive action was taken within the operational context (i.e., effective status quo) which contained the cumulative effects of all earlier actions. For example, had there not been Inshore/Offshore I, in 1990, would there have been the AFA, in 2000? Even had there been AFA, it is impossible to describe how its form would have been different from the 2000 action, much less what the quantitative dimensions (cited above) would have been. And, of course, Inshore/Offshore I was predicated on all the actions which came before it (e.g., the Roe Stripping Prohibition, Americanization). Just changing the sequence of a few management events would clearly have had substantial, but largely unpredictable changes on the evolution of the fisheries.

The staff suggests that the EIS include the economic cost estimates provided in the amendment analyses prepared for each measure. Although these costs would not be "comparable", for a range of technical reasons, and are certainly not additive, it would be clear to the reader that large costs have already been incurred by the fishing industry to protect habitat, and further, that significant benefits have been realized by society, in connection with this series of conservation and management actions, in the North Pacific and Bering Sea.

How Incorporated into the EIS: Chapter 2.2.2 [*Overview of Previous Actions to Protect Habitat*] would contain the background information on all the measures excluded from the baseline scenario. Chapter 4.3.1 [*Effects of Alternatives to Minimize Fishing Effects on EFH*] would contain an evaluation of the status quo alternative; that is, how well the current suite of measures excluded from the baseline serve to minimize the effects of fishing on EFH. A new chapter would need to be included to allow for the comparison and evaluation of the alternatives to the baseline. Logically, this would occur in Chapter 4.3 [*Effects of Alternatives to Minimize Fishing Effects on EFH*] just prior to the Chapter 4.4 [*Cumulative Effects*] which contains the past, present, and foreseeable future effects. So, the new chapter would become Chapter 4.3.12 [*Evaluation of All Alternatives to a Baseline*].

Table 1. Example table evaluating fish habitat protection measures previously adopted.

<u>Measure</u>	<u>Year Implemented</u>	<u>Management Area</u>	<u>Summary of Measures</u>	<u>Purpose Relative to Habitat Protection</u>	<u>Size of Area</u>	<u>Habitat types protected</u>	<u>FMP Species Protected</u>	<u>Relative costs to participants and communities</u>	<u>Relative value for EFH protection</u>
Area Closures									
Pribilof Habitat Conservation Area (Am. 21a)	1995	Bering Sea	All trawl gear prohibited in area	Primary	7,000 nm ²	shell hash, sponges	blue king crab and all others	\$\$	high
Bristol Bay Nearshore Area (Am. 37)	1997	Bering Sea	All trawl gear prohibited in area	Primary	19,000 nm ²	emergent epifauna (e.g., bryozoans)	red king crab and all others	\$\$	high
Red King Crab Savings Area (Am. 37)	1995 -96 by E.R. 1997 by reg.	Bering Sea	Bottom trawl gear prohibited in area	Primary	4,000 nm ²	sand and sand/silt	red king crab and all others	\$\$	medium
Kodiak Crab Areas (Am. 15, 26)	1986	Gulf of Alaska	Bottom trawl gear prohibited in area	Primary	1,000 nm ²	sand/silt	red king crab and all others	\$	medium
.... and so on									
Effort Limitation									
Groundfish and Crab Vessel Moratorium (Am. 23/28, 5)	1995	BSAI and GOA groundfish; BSAI crab	Only qualified vessels could participate	Incidental	na	all	all	\$\$	low
... and so on									
Gear Restrictions									
Pelagic Trawls for BSAI Pollock	1999	BSAI	Pollock fishery limited to pelagic trawl gear only	Secondary	na	all > 100m	crabs, and others	\$	low
... and so on									
Rationalization Programs									
Halibut and Sablefish IFQs (Am. 15/20)	1995	BSAI and GOA	IFQ program for halibut and sablefish fixed gear fisheries	Incidental	na	all > 50 m	all bottom dwellers	\$\$\$	low
... and so on									

Table 2 Example table comparing habitat protection of the alternatives with a baseline of no protection.

<u>Habitat Protection Indicators</u>	<u>Baseline</u>	<u>Alternative 1 No Action</u>	<u>Alternative 2 GOA slope trawl closures</u>	<u>Alternative 3 Bottom Trawl Prohibition for GOA Slope Rockfish</u>	<u>Alternative 4 Bottom Trawl Closures</u>	<u>Alternative 5 Extended Bottom Trawl Closures</u>	<u>Alternative 5, Option 1 Prohibit trawling in AI coral/sponge areas</u>	<u>Alternative 6 Closures to all bottom tending gear</u>
Area closed to trawling year-round: Bering Sea Aleutian Islands Gulf of Alaska TOTAL	0 nm ² 0 nm ² 0 nm ² 0 nm ²	30,000 nm ² 10,000 nm ² 70,000 nm ² 110,000 nm ²						
Area closed to all bottom tending gear year-round: Bering Sea Aleutian Islands Gulf of Alaska TOTAL								
Annual amount of trawl effort: Bering Sea Aleutian Islands Gulf of Alaska TOTAL								
Annual amount of fixed gear effort: Bering Sea Aleutian Islands Gulf of Alaska TOTAL								
Relative protection of large epifauna (e.g., corals, sponges)								
Relative protection of small epifauna and infauna								

<u>Habitat Protection Indicators</u>	<u>Baseline</u>	<u>Alternative 1 No Action</u>	<u>Alternative 2 GOA slope trawl closures</u>	<u>Alternative 3 Bottom Trawl Prohibition for GOA Slope Rockfish</u>	<u>Alternative 4 Bottom Trawl Closures</u>	<u>Alternative 5 Extended Bottom Trawl Closures</u>	<u>Alternative 5, Option 1 Prohibit trawling in AI coral/sponge areas</u>	<u>Alternative 6 Closures to all bottom tending gear</u>
Relative protection of pelagic habitats								
Relative protection to maintain benthic biodiversity								

Alaska Regional Office
425 G Street
Suite 400
Anchorage, AK 99501

Formerly the Center for
Marine Conservation

**AGENDA C-4
JANUARY 2003
Supplemental**

Dr. James Balsiger
Regional Administrator
Alaska Region
National Marine Fisheries Service
709 W. 9th St.
Juneau, AK 99802-1668

907-588-9922 Telephone
907-588-9923 Facsimile
www.oceanconservancy.org

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The Ocean

Conservancy



David Benton, Chairman
North Pacific Fishery Management Council
605 W. 4th Ave.
Anchorage, AK 99501

January 17, 2003

RE: Essential Fish Habitat Draft Environmental Impact Statement

Dear Dr. Balsiger and Chairman Benton:

The Ocean Conservancy appreciates NMFS' proposed no-bottom contact alternative and the NPFMC's December EFH Motion. These are both important steps in the preparation of a comprehensive DEIS and the eventual adoption of measures that mitigate the adverse impacts of fishing on essential fish habitat. We are concerned, however, that the NPFMC has indicated that this motion will be the final iteration of the range of alternatives and that the agency will consider themselves precluded from addressing several issues that will tighten up the analysis and meet NEPA's responsibility to

present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.¹

In hopes of continuing the progress made at the December council meeting, The Ocean Conservancy offers the following clarifications to what it believes would be a sound construction to the DEIS:

- The range of alternatives should eliminate redundant approaches, include protection for all FMP areas, and incorporate approaches that sharply define the issue of protecting essential fish habitat from the adverse impacts of fishing practices.

¹ 40 CFR §1502.

The Ocean Conservancy strives to be the world's foremost advocate for the oceans. Through science-based advocacy, research, and public education, we inform, inspire and empower people to speak and act for the oceans.

- The agency should ensure that the wealth of scientific literature on habitat protection is reflected in the construction of the alternatives and should retain the responsibility to modify the range of alternatives should their scientists indicate that important habitat or approaches have been omitted.
- Management measures affording protection of Habitat Areas of Particular Concern (HAPCs) must be included in the DEIS.

(1) NEPA Process and the Range of Alternatives

While the NPFMC has finally agreed to expand the range of alternatives from one approach in each area, they have not yet addressed the issue of the repetition of approaches across several alternatives. This is itself a reflection of why the NMFS and the NPFMC should not attempt to substitute the EFH Committee process for a NEPA process. While the EFH Committee process was a useful exercise in stakeholder negotiation amongst different sectors of industry, it was not a process steeped in science and consisted of minimal participation from NMFS scientific staff. NEPA requires

a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences . . . in decisionmaking.²

While there were good ideas circulated by the EFH Committee that should be included in the DEIS and considered during the future determination of what mitigation is "practicable," the alternatives proffered by the committee were largely based upon a strategy of protecting areas that are not heavily fished. Though the committee's alternatives were presented as scientifically prepared, most of the available data was not used in their preparation. This included the known locations of spawning habitats for FMP species, location of rockfish assemblages, and habitat bycatch rates of different fisheries. The committee's recommended range of alternatives was far out of compliance with NEPA and was why Oceana and The Ocean Conservancy expended a large amount of time and resources working with the NPFMC to include approaches based upon habitat information and scientifically based protection strategies such as marine reserves and areas of high bycatch of benthic structure.

In short, our concern was that the scientific component of NEPA had been largely ignored when the agency delegated its NEPA responsibilities for the creation of scientifically based alternatives for the protection of habitat. While the Rose Model

² 42 USC §4332(2)(A). Stated another way, NEPA requires that the responsible agency "initiate and utilize ecological information in the planning and development of resource-oriented projects." 42 USC §4332(2)(H).

was helpful in identifying fisheries with high levels of damage to habitat, scientific input from the agency ceased before the creation of alternatives. Indeed, it took several thousand public comments and a serious lobbying effort to force the NPFMC and NMFS to include an alternative that considered the validity of a no bottom contact approach that reflected The Ocean Conservancy's focus on the wealth of scientific literature on the designation of a 20%-50% network of marine reserves.

Since the range of alternatives predetermine the management measures on the table for consideration in the DEIS, unless this range of alternatives is sufficiently broad and individually differentiated, the final decision will not be one that has been either 'sharply defined' or 'rigorously explored,' both requirements of NEPA. Again, while the inclusion of alternatives presented by Oceana and NMFS have expanded the range of alternatives, the alternatives at present need fine tuning so one approach does not appear repeatedly and blur the exploration of the ecological efficacy and socioeconomic tradeoffs posed by each approach.

The following is a summary of the alternatives and how each management area is treated:

(A) Alternative 1: Status quo.

(B) Alternative 2: Gulf Slope Bottom Trawl Closures

GOA: bottom trawls for rockfish prohibited in 13 areas, but allowance for gear conversion in these areas.

BS: no approach.

AI: no approach.

(C) Alternative 3: Bottom Trawl Gear Prohibition for GOA Slope Rockfish on upper slope area

GOA: bottom trawls for rockfish prohibited on slope, but allowance for gear conversion in this area.

BS: no approach.

AI: no approach.

(D) Bottom Trawl Closures in All Management Areas

GOA: bottom trawls for rockfish prohibited in 13 areas, but allowance for gear conversion in these areas.

BS: rotating closures to bottom trawls in 20% of 5 areas of the Bering Sea for four years at a time.

AI: closures in Stalemate Bank, Bowers Ridge, Seguam Foraging Area, and Semisopchnoi Island.

(E) Expanded Bottom Trawl Closures in All Management Areas

GOA: bottom trawls prohibited for all groundfish in 11 areas; prohibition of bottom trawls for rockfish, but allowance for gear conversion.

BS: rotating closures to bottom trawls in 33 1/3% of 5 areas of the Bering Sea for four years at a time.

AI: closures in Stalemate Bank, Bowers Ridge, Seguam Foraging Area, Yunaska Island, and Semisopochnoi Island.

AI Suboption: Oceana bottom trawl restriction approach.

(F) Closures to All Bottom Tending Gear

GOA: 20% of fishable waters closed to bottom tending gear.

BS: 20% of fishable waters closed to bottom tending gear.

AI: 20% of fishable waters closed to bottom tending gear.

The repetition of approaches throughout the alternatives is problematic in several ways.

First, there are not six alternatives that are significantly differentiated. For the Gulf of Alaska, there are three approaches: (1) closing the entire slope to rockfish bottom trawling, (2) closing 11-13 areas that were identified by fisherman as not important to fishing to bottom trawling, or (3) a 20% no bottom contact approach. For the Bering Sea, there are 2 approaches: (1) closing either 20% or 33 1/3 % of 5 areas identified by fisherman as 'backup' fishing grounds to bottom trawling, or (2) a 20% no bottom contact approach. For the Aleutian Islands, there are three approaches: (1) closing 4 or 5 areas identified by fisherman as not important to fishing, (2) the Oceana bottom trawl restriction approach, or (3) a 20% no bottom contact approach.

Second, the approaches as formulated are not reflective of either NMFS' scientific expertise or the wealth of literature on habitat protection. A good example of this is the refusal of the committee to use sponge, coral, boltenia, and sea whips (all biogenic habitat species) as a starting point for habitat protection. Areas that can be protected with the least economic impact were used instead. Furthermore, the agency's own scientists submitted a short description of the most important habitat areas deserving protection at the Sitka meeting in March 2002. These descriptions have not been used, nor has an approach basing protection of essential fish habitat on habitat data been put forth until the December meeting and the belated acceptance of the Ocean approach and the no bottom contact approach.

NEPA requires the discussion of all reasonable alternatives. A full evaluation of all reasonable alternatives is "the heart of an Environmental Impact Statement . . ."³

³ 40 CFR §1502.14.

The Ocean Conservancy, appreciative of the fact that the NPFMC and NMFS have begun this process at the December NPFMC meeting, requests that both the agency and the Council undertake the following approach:

- constrict the range of alternatives so that each alternative reflects a singular approach. Suboptions can be used when there is only small variations from this approach⁴,
- task their scientists with a review of the range of alternatives to ensure that a range of valid scientific approaches were included for the protection of habitat⁵,
- ensure that several approaches are based upon the protection of habitat that is both biologically important and adversely affected by fishing,
- include protection of the Gulf of Alaska, Bering Sea, and Aleutian Islands through each different approach.

By undertaking this review and restructuring, the EFH DEIS will better reflect a range of alternatives that are based on both scientific and economic approaches and will have alternatives that are sufficiently differentiated from each other so that the public and the decisionmaker can readily discern the tradeoffs between approaches and the impacts to the environment. Significantly, it will reduce the number of alternatives without reducing the number of options on the table. This allows for the opportunity to expand the range of alternatives should it be determined that other scientifically justified approaches have been missed during the limited stakeholder negotiations that produced the narrow range of alternatives based largely on a premature determination of what is 'practicable'.⁶

(2) Habitat Areas of Particular Concern

Perhaps the best example of how the NEPA process has not been scientifically based is in the arena of HAPC protection. HAPC is defined as

a subset of EFH . . . that may require additional protection from adverse effects . . . and are defined on the basis of ecological

⁴ An example of this is that one approach is closures of eleven areas in the Gulf of Alaska. Although a closure of thirteen areas is considered in a different alternative, eleven of these thirteen areas are the exact same and the difference between these alternatives is minimal.

⁵ An example would be to check the alternatives as structured for compliance with the findings and recommendations of the NRC's Bottom Trawl and MPA reports.

⁶ For example, several public comments have indicated that both the NRC report and the Rose model would justify an alternative that examined the biological and socioeconomic impact of a complete ban on bottom trawling.

*importance, sensitivity to human-induced environmental degradation, stress to the habitat from development activities, and rarity of habitat.*⁷

HAPCs are EFH. They are the most important EFH. To ignore their protection during the EFH process is to ignore the protection of EFH.

The NPFMC's June 2002 motion tasked the EFH Committee to

develop a process for the public to interact with the Council to develop, and amend HAPC designations.

The NPFMC's December 2002 motion stated that the NPFMC will in the future be considering HAPCs based upon

gorgonian corals, sponges, and sea onions . . . once the Council and Committee have adopted a HAPC process.

This process already exists. HAPCs are EFH. The NPFMC and NMFS are in the process of protecting EFH. The DEIS is to include a section defining HAPCs and will provide both environmental and socioeconomic analysis of HAPC designation. The June 2002 NPFMC motion to analyze example HAPCs in the DEIS renders the discussion of HAPCs theoretical and does not meet either the Magnuson Stevens Fishery Conservation and Management Act's requirement to mitigate adverse impacts to EFH or NEPA's requirement that the analysis be of a proposed action. Therefore, all alternatives must mitigate the adverse impacts of fishing on HAPC.

In conclusion, The Ocean Conservancy appreciates that the delineation of alternatives for consideration in the EFH DEIS is a work in progress. We feel that the NPFMC and NMFS began moving in the right direction at the December 2002 meeting and hope that the Council and the agency will accept our comments as constructive and helpful for the purposes of meeting NMFS' MSFCMA and NEPA obligations to present scientifically based alternative management approaches to mitigating the adverse impacts of fishing on essential fish habitat.

Sincerely,



Kris Balliet
Alaska Region Director
The Ocean Conservancy

⁷ 67 FR 1326.



175 SOUTH FRANKLIN STREET, SUITE 418 JUNEAU, ALASKA 99801 907-586.4050 WWW.OCEANA.ORG

January 16, 2003

David Benton
Chairman
North Pacific Fishery Management Council
605 W. 4th Ave., Suite 306
Anchorage, AK 99501-2252

Dr. James Balsiger
Regional Administrator, Alaska Region
National Marine Fisheries Service
709 W. 9th St.
Juneau, AK 99802-1668

RECEIVED
JAN 16 2003
N.P.F.M.C.

RE: Mitigation measures for EFH

Dear Chairman Benton and Dr. Balsiger,

We commend you for the progress you have made in steps toward the Essential Fish Habitat Environmental Impact Statement (EFH EIS) and are pleased to see the inclusion of our Aleutian Islands approach as a sub-option in Alternative 5. As you know the EFH Committee was not able to meet the National Marine Fisheries Service's (NMFS) responsibility to consider and provide the public all important relevant information and data necessary for developing a reasonable range of alternatives. We have tried several times in different forums to articulate our position that the Aleutian Islands proposed approach is applicable to all other EFH action areas as well as being specific to the Aleutians. It is our understanding that as the Council proceeds with a "step by step" EFH EIS process, a reasonable range of alternatives and combinations of approaches will be developed and analyzed.

Jim, as we discussed recently, yes, we hope that the Aleutian approach will be seen as a "recipe" approach. It is critical for the public and the decision-makers to have a broad range of alternatives and have all of the relevant information and data necessary to evaluate the specifics of the alternatives and particularly the combinations of alternatives. The Aleutian approach combined with the Reserves and/or HAPC responsibilities, a permitting and reserves alternative, could indeed be the key to protecting EFH while maintaining vibrant commercial fisheries.

The EFH Committee was charged with using best available scientific data and incorporating input from the public to develop a broad, comprehensive range of alternatives for designating and mitigating adverse fishing impacts to EFH. We

Oceana
1/16/2003
Page 2 of 3

repeatedly requested that a customized approach based on specific data be included in the EIS for analysis. We asked for and spent a great deal of resources trying to get the bycatch rates of corals and sponges throughout Alaska's Exclusive Economic Zone, reported by 25 square km blocks. We began our requests and research efforts last March. We continued with requests at the September 16-18 EFH meeting in Kodiak, at the EFH Subcommittee Stakeholder meetings in Anchorage and Kodiak, and at the October and December Council meetings. The EFH Committee essentially ignored our proposed approach and did not respond to our specific data request. We greatly appreciate the limited data that has come forward during the EFH Committee and from NMFS, but as you know this data is currently insufficient to meet the spatially specific nature of our requests or provide the public with fair analysis. Again, as we said we are trying to build a science-based conservation approach that would combine the "tools" of various alternatives and the recommendations of the National Research Council.

Therefore, without much assistance or support, we did the best we could with the data we were able to ferret out to show the EFH Committee, the Council, and the agency what this approach might look like if applied to the Aleutian Islands, an area subject to high known adverse impacts to EFH. Our effort to develop inclusive, conservative management measures was developed to meet the Goal to protect as much essential fish habitat as possible in specific sub-areas without dramatically impacting the fishing industry or communities. The approach is based on the following five principles:

1. NMFS provides the public with all relevant important information and data, including local knowledge of fishermen and communities for alternative formation and analysis.
2. Bottom trawling is permitted only in specific designated areas where there is high fishing benefit and corresponding minimal habitat risk. This should include area-specific bycatch caps of habitat species or incentives for habitat conservation.
3. NMFS develops and commits to a comprehensive research and monitoring plan, including mapping of the benthic habitat.
4. NMFS provides a clear process for identification, designation, and appropriate protection of key biodiverse and productive marine locations found in the action area. (Marine reserves and/or other protection measures)
5. Adaptive management process is built into the plan based on research and monitoring information and data including local knowledge (annual review and amendments as appropriate).

The Aleutian Islands proposal in the Council's recommendations is indeed progress in this "step by step" process to develop effective EFH protection. We view our proposal as an approach that could be combined with other "tools" like Marine Reserves in the suite of alternatives to form a strong scientific EFH mitigation alternative. The Aleutian Islands sub-option alternative alone does not satisfy NMFS responsibility to develop a broad range of alternatives for the EIS action area.

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1/16/2003
Page 3 of 3

The Aleutian Islands sub-option is a specific application of a science-based process and approach that we recommended numerous times to the Council and the EFH Committee. It is a management "recipe" approach that could and should be applied to each sub-area addressed by the EFH EIS with appropriate modifications for each respective area. Due to the limited range of approaches used in the alternatives recommended by the Council thus far, we believe it is prudent and reasonable to analyze the "Aleutian permitting and reserve" combination alternative for the Bering Sea and Gulf of Alaska. Furthermore, considering that bottom trawling has been scientifically shown to have the most adverse and significant impact of Alaska's EFH and is a major contributor to the economy, it is completely reasonable to also include an alternative that analyzes the advantages and disadvantages of completely banning this gear type.

In short, we are simply commending the Council for recent actions and asking for your help and consideration in the next step. We believe that NMFS can bring all the important relevant information and data forward. So as to develop and analyze a reasonable range of alternatives and combinations during the EFH EIS process. It seems reasonable and possible to apply the "permitting and reserve" approach that we have discussed as a distinct alternative for each respective sub-regions. This requires using all reasonable management tools in the EIS and including combinations within the suite of the various alternatives. A proper process will also provide ample opportunity for stakeholders to evaluate and comment on all alternatives. It is our understanding that you intend to take these steps during the Draft EIS process and we commend you. We commit to continue to work with you and would appreciate your advice on how we might better participate.

Thank you for your consideration and hard work. We stand firm in our belief that there can continue to be vibrant fisheries while protecting essential fish habitat.

Sincerely,



Jim Ayers

Director, Oceana North Pacific Office

ALEUTIAN ISLANDS
BROWN CRAB COALITION

14 January 2003

Mr. Jon Kurland, Director
NMFS, Alaska Region
P.O. Box 21668
Juneau, AK 99802

RECEIVED
JAN 16 2003
N.P.F.M.C

620 Sixth Street South
Kirkland, WA 98033
(425) 822-6980
Fax (425) 822-7380

AGENDA C-4
JANUARY 2003
Supplemental

Re: Golden King Crab EFH

Dear Mr. Kurland:

The Aleutian Island Brown Crab Coalition is comprised of 12 vessel owners, skippers, and crew who operate in the Area O Golden King Crab (Brown Crab) fishery. Members of AIBCC have been participating in the EFH Committee and Council process with significant interest in recent months. It is apparent that great efforts are being made to fully understand the myriad fisheries in the Bering Sea and Aleutian Islands and their dependence and impacts upon marine habitat.

It is in this vein that we wish to provide you with the most recent version of the Golden King Crab Fishery Descriptions developed by Council staff with crabbers' input (see attached). In addition to this description, we have summarized further facts about the extent of seafloor contact our fishery has in areas harvested.

Parameter	Size
Total Area Aleutian Islands	1,000,100,000,000 sq m
Total area of State Stat areas in which GKC has been harvested*	283,281,513,099 sq m (28 % of AI)
# of pot hauls (1999-2000)	180,169 pulls
Footprint of 7' x 7' crab pot = 49 sq ft	4.552 sq m
Total footprint of fishery (99-00)	820,174 sq m
Footprint as % of Aleutian Islands, and % of State stat areas harvested	0.0000082% of AI 0.0000029% of Stat Areas harvested**
Total estimated value of 99-00 fishery	\$18.5 million USD
\$Value yielded per sq m impacted***	\$ 22.56/ sq m

*ADF&G State Statistical Areas Attributes Database ... note: due to omission in database, this is a slight underestimate of total area

**Due to slight underestimate of area, this % is a slight overestimate

***Estimated 99-00 value from H. Savikko, ADF&G 2003

The attached map indicates the state statistical areas in which golden king crab have been harvested during the past 7 years (1995 through 2001). Not all statistical areas are harvested every year, and, more importantly, the actual locations where crab are harvested within statistical areas comprises a minute portion of each area.



It is important to note that the synopsis above characterizes the golden king crab fishery as presently conducted. We anticipate that future rationalization of our industry will result in significant changes in fishery operations that will contribute to conservation of crab and further reduce any effects of brown crab fishing on benthic habitats. Specifically, analysts have predicted fewer participating vessels, longer harvest seasons and longer soak periods (to allow escapement of undersized crab), and most importantly a reduction in pot pulls whereby pot pulls in the Eastern District could drop as much as 50% and in the Western District by as much as 20%, a combined area pot pull reduction of nearly 30%.

I would like to reiterate the Aleutian Island Brown Crab Coalition's commitment to conserving important marine habitats and fully participating in the essential fish habitat EIS process. We have enclosed a roster of our members for your use. They are and have been active at The EFH Committee hearings and at the North Pacific Management Council meetings in speaking for our Coalition. Because many of our members will be fishing *Opilio* during the upcoming EFH meetings, can you please send a copy of the draft alternative currently being drafted by Team EFH to us for review as soon as it become available?

Please do not hesitate to contact us at any time if you or your staff needs further information, or have questions regarding our unique fishery.

Sincerely,



Terrance L. Cosgrove
AIBCC Principal

Attachment:

Revised Fishery Description for the Aleutian Island Golden King Crab Fishery

cc. David Witherell, Deputy Director, NPFMC
David Benton, Chairman, NPFMC
Linda Behnken, Co-Chair, EFH Committee, NPFMC
Stosh Anderson, Co-Chair, EFH Committee, NPFMC

Aleutian Islands Golden King Crab Fishery

Description of gear used: The gear used in this fishery consists of strings of multiple rectangular pots connected together to form a longline on the ocean floor. Most of the vessels participating in this fishery are catcher vessels under 125' long. There is a single 130' catcher processor vessel currently participating. Vessels set 400 to 1,800 pots (710 pots each on average). In the 1999/2000 fishery, 17 vessels participated and made 180,169 pot lifts. Pots used in this fishery are constructed with a steel bar frame and covered with nylon mesh netting. A variety of pot sizes are used, largely depending on vessel size and area fished. Pots range in size from 5'3" x 5'3" x 32" high to 6' x 7' x 34" high, with most vessels using 5'3" x 5'3" or 6' x 7' pots. The leading end of the pots' outer frame bars are radiused so that they do not snag on the bottom (see diagram [to be added]).

In addition, the bottom webbing is protected by the outer frame of the pot, and does not directly contact the bottom. The difference between golden king crab pots and traditional red king crab pots is that the industry is voluntarily moving toward use of larger webbing on the ends of the pot and the tunnel sides. The newer webbing is between 8¼" and 9" stretch mesh to reduce by catch of undersized crab. Pots are set in strings of 20 to 80 pots, each pot connected to the other by 80 to 100 fathoms of 20 to 28 mm (5/8" to 1 1/8") floating polypropylene line. Therefore, a single string may be 2 to 5 miles long. The ends of each string are marked with four buoys. A single buoy on each line is marked with the appropriate Fish and Game requirements.

Description of fishery operations: Pots are baited in a manner similar to that described for Bristol Bay. Golden king crab longlined pots are set at vessel speeds from five to eight knots. Pots are deployed from the deck with ample slack in the floating poly line between pots. Due to the heavy weight of the pots (500 to 1,800 pounds each), pots do not move about on the seafloor. The ends of these strings are weighted down by double weighted anchor pots to secure there is no movement of the string on the bottom. (Tides and currents have little effect once the pots land on the ocean floor) The average soak time to allow maximum fishing is three to 10 days. Pots are retrieved through direct lifting from the seafloor. Pots retrieved from steep slope habitats are lifted away from the slope into the water column rather than being pulled upslope. Similarly, pots on gently sloping or flat terrain are lifted directly from the seafloor (see inset diagrams).

Limitations to the strength of the materials used in the longline make it imperative that the vessel be directly above the gear as it is hauled up. Three to four pots may hang in the catenary as the gear is hauled up, with the vessel positioned directly above the pot that is next to leave the bottom. Gear is usually visible on the vessel's depth sounding equipment as it is hauled.

Habitat type where fishery occurs: Golden king crabs are taken in areas consisting of rough, uneven bottom and in compacted sand-cobble bottom at depths of 100-400 fathoms (600 to 2,400 ft.). Fishery effort is concentrated at the entrances to passes

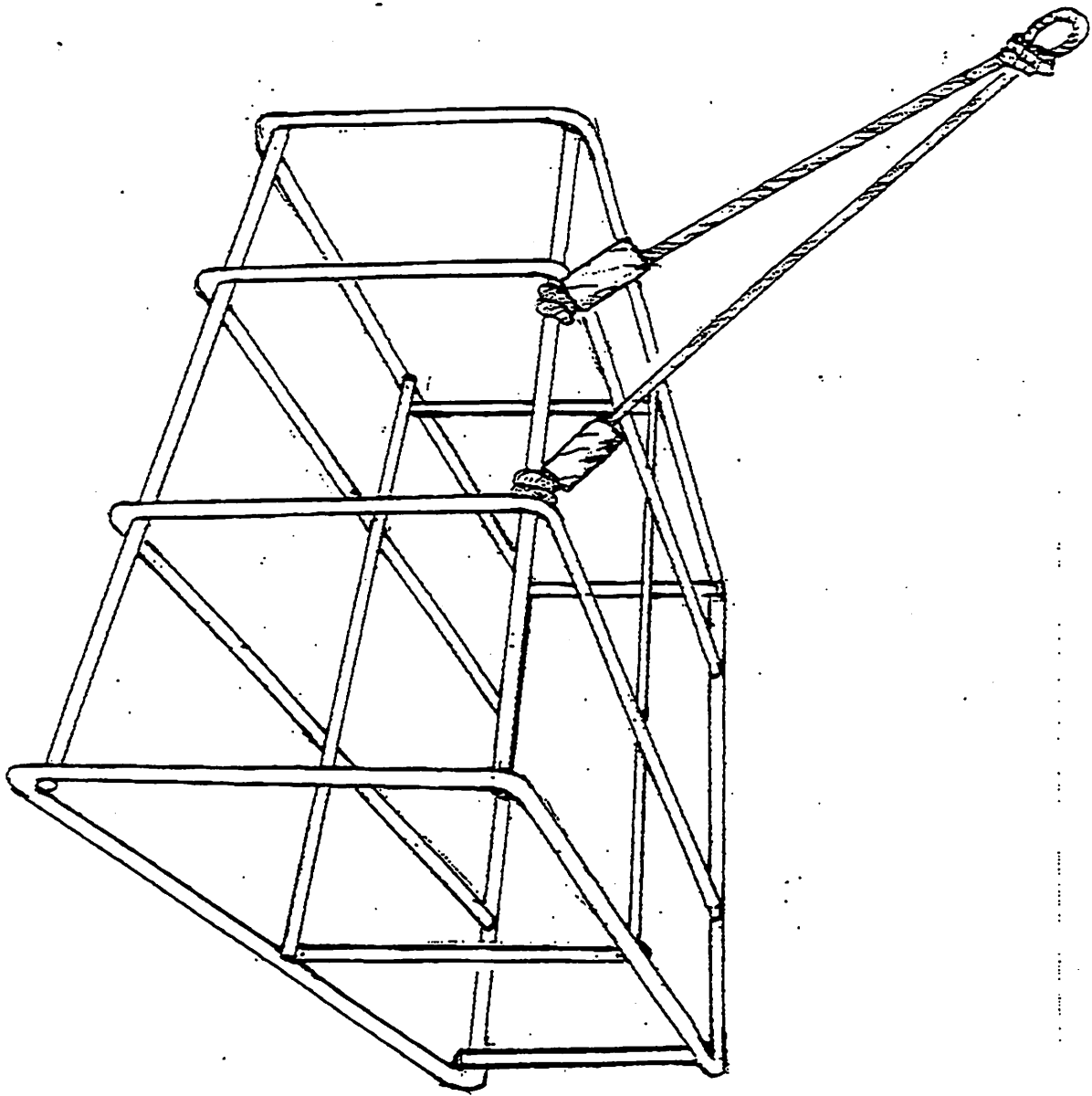
between the islands, particularly in the Eastern district. In the western district, the fishery occurs in steep rocky terrain, near passes between islands, and in moderately sloping mud sand habitat in basins.

Existing regulatory measures to mitigate effects of this fishery: Gear Pots are the only legal gear type. Pots require biodegradable panels to minimize "ghost fishing" by lost or derelict gear. Pots require escape rings or large mesh panels designed to permit the escape of non-target crabs. Pots weigh 500 to 1,800 pounds each, and floating poly line connects each pot at a distance of 80-100 fathoms. (480-600 ft.) Therefore, pots are not subject to tidal or other influences, which might move gear around, and floating line minimizes entanglement with seafloor substrata. This fishery is managed exclusively as a longline fishery to reduce gear loss and "ghost fishing."

Fishing Seasons: The season length is usually determined by the GHL. Recently, this has occurred after fewer than four weeks in the eastern Aleutians, and approximately nine months in the western Aleutians. The extended season in the western Aleutians allows for longer pot soak times, which provides for minimal sorting, allowing undersized crabs to escape.

Limited Access. Beginning in 2000, the license limitation program has provided for limits on the maximum number of vessels allowed in the fishery. An analysis is currently being undertaken, aimed at further rationalization of the fisheries. This rationalization of the Al brown crab fishery could reduce the fishing effort by as much as 50 percent.

Size and Sex Restrictions. A prohibition on the retention of female crabs is designed to maximize overall reproductive potential. Male size limits are set to ensure that males have at least one mating season before becoming vulnerable to the fishery. The legal size for mature males is 6".

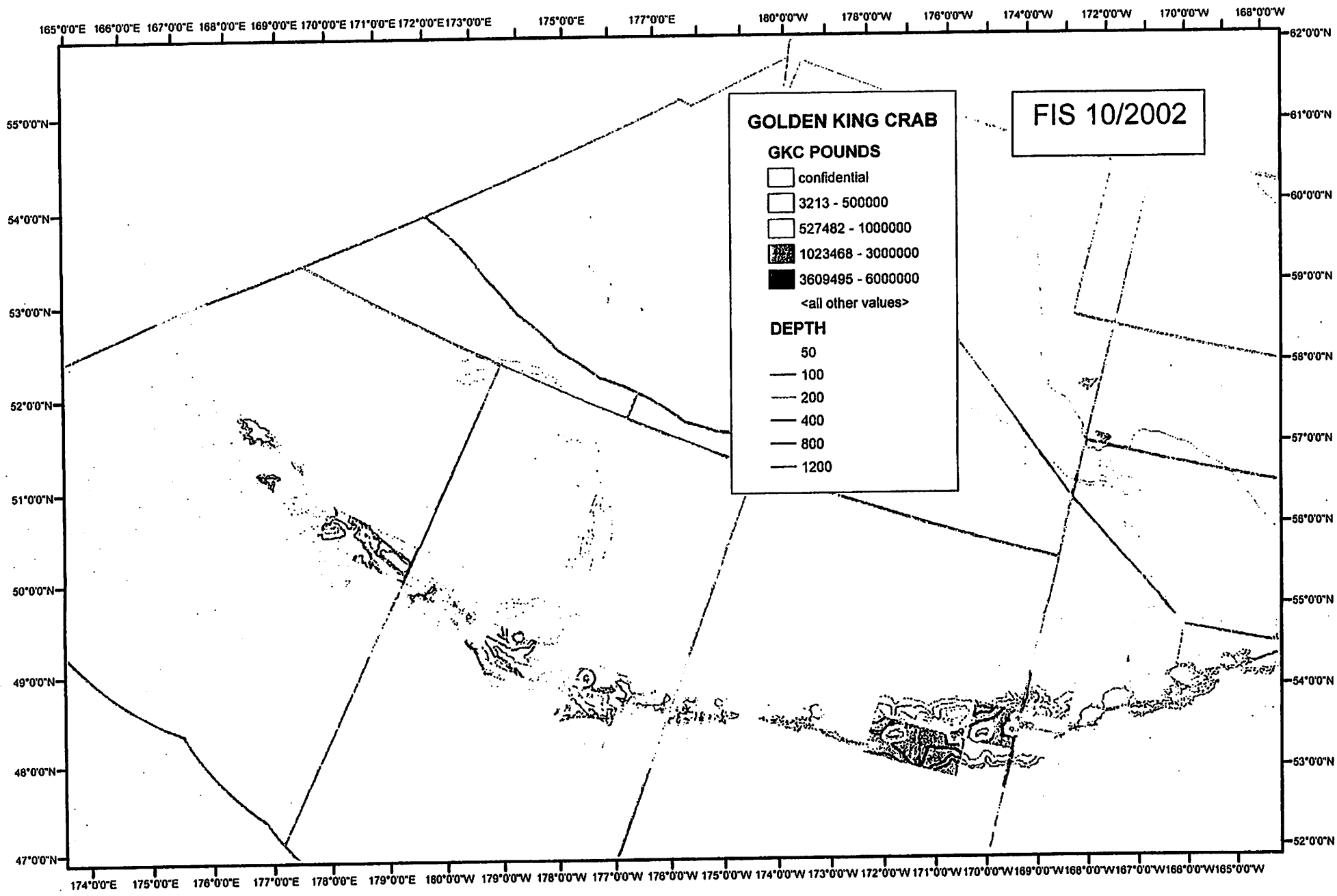


MCA
BROWN CRAB COALITION

VESSEL	VESSEL REP	ADDRESS	PHONE	FAX	EMAIL
ALASKAN BEAUTY	Terry Cosgrove	620 Sixth St.S. Kirkland, WA 98033	425-822-6980 Ofc 206-910-3953 Cell	425-822-7380	tlc@fms-incorporated.com
ALASKA SEA	Bing Henkel	1736 205th PI NE Sammamish, WA 98053	425-868-8870 Hm 425-503-5120 Cell	425-868-7574	abhenkel@attbi.com
ALEUTIAN #1	Ron Petersen	3901 Leary Ave NW, #9 Seattle, WA 98107	206-547-5639	206-545-0447 Fax	
EARLY DAWN	Rick Mezich	7215 156th St. SW Edmonds, WA 98026	425-742-7456 Hm	425-742-7712	rmezich@attbi.com
ERLAN	Bing Henkel	1736 205th PI NE Sammamish, WA 98053	425-868-8870 Hm 425-503-5120 Cell	425-868-7574	abhenkel@attbi.com
ICELANDER	Dick Powell	P.O. Box 2074 Kodiak, AK 99615	907-486-4250 360-652-1629 206-399-8109 Cell		rpowell@ptialaska.net
NORTH PACIFIC	Russ Moore	620 6th St.S. Kirkland, WA 98033	425-822-6980 206-954-7916 Cell	425-822-7380	rwmoore57@aol.com
OCEAN OLYMPIC	Kim Hansen	620 6th St.S. Kirkland, WA 98033	425-822-6980 206-498-8502 Cell	425-822-7380	kim_k_hansen@msn.com
PACIFIC STAR	Mark Hjelle	Box 77004 Seattle WA 98172			

MCA
BROWN CRAB COALITION

PATRICIA LEE	Dick Powell	P.O. Box 2074	907-486-4250		rpowell@ptialaska.net
		Kodiak, AK 99615	360-652-1629		
			206-399-8109 Cell		
SPIRIT OF THE NORTH	Steve Hall	355 NE Golf Course Dr	541-265-7209 Hm	541-265-8021	
		Newport, OR 97365	541-961-2831 Cell		
WESTERN VIKING	Jim Stone	7216 Interlaaken Dr. SW	253-582-2580	253-589-0508	
		Lakewood, WA 98499			



AGENDA C-4
JANUARY 2003
Supplemental
Agenda
N.P.F.M.C

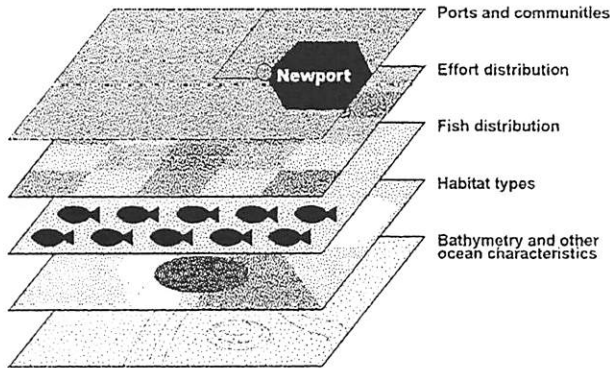


Spatial analysis tools for fishery management – Ecotrust/PMCC’s Groundfish Fleet Restructuring Project

Astrid J. Scholz, Ph.D., Principal Investigator
ajscholz@ecotrust.org

20 January 2003

Ecotrust, in collaboration with the Pacific Marine Conservation Council, and with funding from the Pacific States Marine Fisheries Commission, is in the process of completing an extensive spatial analysis project off the coast of Washington, Oregon and California that might be of interest for fishery management in the area of the North Pacific Fishery Management Council.



We built a regional, spatially integrated database comprising fishery-dependent (landings, ex vessel revenues, etc.) and independent data (NMFS trawl surveys, etc.), bathymetry, habitat characteristics, census information, and other data. We coupled this geographic information system (GIS) with a regional economic model, and simulated the effects of various fleet reduction scenarios as mandated by the Pacific Fishery Management Council’s *Strategic Plan* (2000). A draft report and results can be viewed at the project website, www.ecotrust.org/gfr

The GFR framework makes it possible to link particular vessels, gear types and target species to particular areas in the ocean and to particular ports. As part of the Groundfish Fleet Restructuring (GFR) project, for example, we are providing spatial analyses of the trawl and non-trawl fishing effort off the West Coast to the North-West Region of NMFS, which is then integrated with habitat characterizations for the groundfish EFH EIS being conducted by the region.

We suspect that similar analyses may be relevant for the EFH processes in Alaska, as well as the Gulf of Alaska Rationalization or other fishery management issues. Dr. Scholz will be giving short informational presentations to the council and committees, and is available to discuss the approach, results and potential applications of the GFR project. She can be reached at 415 561 2433, or ajscholz@ecotrust.org



Ecotrust is a non-profit think tank and community development organization promoting a conservation economy in the Pacific Northwest—where economy, ecology and equity are in balance. Headquartered in Portland, Oregon, we have offices across the entire bioregion, including Juneau and Anchorage. In addition to providing GIS services, our work in Alaska has focused on forestry and salmon restoration issues; partners include: ADFG, NMFS, USGS, USFS, Prince William Sound Science Center, Alaska Marine Conservation Council, Alaska Rainforest Campaign, Sitka Conservation Society, TNC, Alaska Conservation Alliance, Hoonah Indian Association, Sitka Tribe of Alaska, Southeast Alaska Tribal College, Tlingit Haida Central Council, Native American Fish & Wildlife Society, First Nations Development Institute, Chugachmuit.

C- 4 Progress Report on Essential Fish Habitat (EFH) EIS Development

01-21-03

Alternatives to minimize the effects of fishing on EFH:

Council, NMFS and Coast Guard staff have been working on GIS mapping of alternatives. Staff clarification of minimization alternatives will be presented under agenda item C-4 (b). EFH Committee recommendations on alternatives will be presented under agenda item C-4 (c). AFSC staff are working on the research design which will be included into each alternative and a suboption to Alternative 1, Status Quo, which will include a research component for analysis in the EIS. A baseline scenario proposal will be presented to the Council by David Witherell.

EFH Designation Alternatives, Update Habitat Assessment Reports and Habitat Area of Particular Concern (HAPC) Alternatives:

NMFS staff (Regional Office and AFSC) and Council staff are continuing analyze the data necessary to determine EFH by species life stage by alternative and develop the necessary maps and written descriptions of EFH. Basic life history information is being updated for FMP species. Work continues on the description of the HAPC alternatives by staff.

Draft Chapters of the EIS:

Preliminary drafts have been written for Chapters 1, Purpose and Need for Action; Chapter 2, Alternatives Including the Proposed Action; and Chapter 3, Affected Environment. Staff will continue to work on these Chapters. In addition, staff have begun to work on various appendixes. Appendixes planned for the document include:

- Appendix A Documentation of the scoping process
- Appendix B Evaluation of fishing activities that may adversely affect EFH
- Appendix C Regulatory Impact Review/Initial Regulatory Flexibility Analysis
- Appendix D Detailed text and map description of EFH by Alternative
- Appendix E Detailed text and map description of HAPC by Alternative
- Appendix F NMFS Recommendations
- Appendix G Habitat assessment report
- Appendix H Effects of non-fishing activities on EFH
- Appendix I Analytical methods to evaluate the effects on target species

Structuring of the Analysis:

There have been internal discussions of the scope of the analysis, what we need to accomplish, the questions that will need to be answered. Paralleling these discussions, discussions on staff or expertise needed to accomplish the work and staff availability continue. We are trying to get a more comprehensive idea of the magnitude of the work involved in the pre analysis (data base development, bycatch model, redeployment analysis, stock assessment, spatial habitat model) and plan accordingly.

Environmental Consequences - Chapter 4:

The environmental consequences chapter will proceed after the alternatives are finalized and the pre analysis steps are completed.

**Essential Fish Habitat
Mitigation Alternatives**

Alternative 1: Status quo. No additional measures would be taken at this time to minimize the effects of fishing on EFH.

Alternative 2: Gulf Slope Bottom Trawl Closures: Prohibit the use of bottom trawls for rockfish in 11 (combined from 12) designated areas of the GOA slope (200m-1000m), but allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 3: Bottom Trawl Gear Prohibition for GOA Slope Rockfish on upper slope area (200-1,000m). Prohibit the use of bottom trawl gear for targeting GOA slope rockfish species on upper slope area (200-1000m), but allow vessels endorsed for trawl gear to fish for slope rockfish with fixed gear or pelagic trawl gear.

Alternative 4: Bottom Trawl Closures in All Management Areas: Prohibit the use of bottom trawl gear in designated areas of the Bering Sea, Aleutian Islands, and Gulf of Alaska. Bottom trawl gear used in the remaining open areas would be required to have disks/bobbins on trawl sweeps and footropes.

Bering Sea: Prohibit the use of bottom trawl gear for all groundfish fisheries in the Bering Sea except within a designated "open" area. The open area is designated based on historic bottom trawl effort. Within the open area, there would be a rotating closure to bottom trawl gear in 5 areas to the west, north and northwest of the Pribilof Islands. Closure areas would be designated in Blocks 1,2,3,4 and 6 as identified by the EFH Committee, with 4 year closed periods for 20% of each block. After 4 years, the closed portion of each block would re-open, and a different 20% of each block would close for 4years, and so on thereafter. After 20 years, all area within each block would have been subject to a 4year closure, and the rotating closure areas would start over.

Aleutian Islands: Prohibit the use of bottom trawl gear for all groundfish fisheries in designated areas of the Aleutian Islands. Closure areas would be designated in the areas of Stalemate Bank, Bowers Ridge, Seguam Foraging Area, and Semisopochnoi Island.

Gulf of Alaska: Prohibit the use of bottom trawl gear for rockfish fisheries on 11 (combined from 12) designated sites of the GOA slope (200m-1000m). Allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 5: Expanded Bottom Trawl Closures in All Management Areas: Prohibit the use of bottom trawl gear in designated areas of the Bering Sea, Aleutian Islands, and Gulf of Alaska. Bottom trawl gear used in the remaining open areas would be required to have disks/bobbins on trawl sweeps and footropes.

Bering Sea: Prohibit the use of bottom trawl gear for all groundfish fisheries in the Bering Sea except within a designated "open" area. The open area is designated based on historic bottom trawl effort. Within the open area, there would be a rotating closure to bottom trawl gear in 5 areas to the west, north and northwest of the Pribilof Islands. Closure areas would be designated in Blocks 1,2,3,4 and 6 as identified by the EFH Committee. These five blocks will be subdivided into three equal strips, representing 33 1/3 % and each block would be closed for 4 years. After 4 years, the closed area would re-open, and the next 33 1/3 % area of each block would close for 4 years, and so on thereafter.

Aleutian Islands: Prohibit the use of bottom trawl gear for all groundfish fisheries in designated areas of the Aleutian Islands. Closure areas would be designated in the areas of Stalemate Bank, Bowers Ridge, Seguam Foraging Area, Yunaska Island, and Semisopochnoi Island. These closure areas extend to the northern and southern boundaries of the AI management unit.

Suboption for Aleutian Islands: Oceana's Aleutian Seafloor Habitat Protection Alternative dated Dec. 6, 2002. Close areas to bottom trawling that have high coral and sponge bycatch rates and low target species CPUE and reduce TAC by amount that historically came from that those. No expansion of bottom trawl fisheries to new areas. Institute area-specific coral/ sponge bycatch limits that close specific areas if exceeded. If implemented it would include the following actions:

Expand observer coverage to 100%, utilize the CADRES program, and require each vessel to have VMS.

Additionally the proposal requests a comprehensive plan for research and monitoring that would include: Seafloor mapping, benthic research, and habitat impacts of all bottom tending gears, annual habitat assessment reports, experimental fishing permits to identify additional open areas.

Gulf of Alaska: Prohibit the use of bottom trawl gear for all groundfish fisheries on 10 designated sites of the GOA slope (200m-1000m). Additionally, prohibit the use of bottom trawls for targeting GOA slope rockfish on the GOA slope (200-1000 meters), but allow vessels endorsed for trawl gear to fish for rockfish in these areas with fixed gear or pelagic trawl gear.

Alternative 6: Closures to All Bottom Tending Gear

Prohibit the use of all bottom tending gear (dredges, bottom trawls, pelagic trawls that contact the bottom, longlines, and pots) within approximately 20% of the fishable waters (i.e., 20% of the waters shallower than 1,000m) in each of the regions described below.

Gulf of Alaska: The Gulf of Alaska would be subdivided into 3 regions: Western (corresponding to regulatory area 610), Central (areas (620 and 630), and Eastern (areas 640 and 650).

Aleutian Islands: The Aleutian Islands would be subdivided into 4 regions: Western (corresponding to regulatory area 543), Central (area 542), Eastern (area 541), and two smaller Bering Sea regulatory areas adjacent to the Aleutians (combination of areas 518 and 519).

Bering Sea: The Bering Sea would be subdivided into 3 regions south of St. Lawrence Island denoting each of the predominant substrate types (sand, sand/mud, and mud) and taking into consideration the varying depth distribution of each substrate.

The closed areas would be identified based on the presence of habitat such as high relief coral, sponges, and *Boltenia*, with emphasis on areas with notable benthic structure and / or high concentrations of benthic invertebrates that provide shelter for managed species. The closed areas would include a mix of relatively undisturbed habitats and habitats that currently are fished. Within a given region, existing area closures could comprise all or a portion of the closed areas for this alternative.

Draft gear definition




In addition, bottom trawl gear used in the remaining open areas would be required to have sweeps and footropes equipped with disks/bobbins to reduce contact area and proximity to the seafloor. The sweeps and footrope form a complete loop between the trawl doors. The footrope deploys immediately ahead of the bottom edge of the trawl net and the sweeps connect each end of the footrope to a trawl door.

The goal of the requirement would be to have configurations creating least a 3 inch clearance below more than 90% length the length of any 35 foot section of sweep and at least a 3.5 inch clearance below more than 75% of the length of any 10 foot section of the footrope. In consultation with trawl captains, fisheries enforcement and gear manufacturers, a measurement method would be developed that will allow any 35 foot length of sweep and any 10 foot length of footrope to be evaluated to determine whether it meets these standards. An example configurations which would meet sweep requirements would include discs or bobbins with 9" minimum diameter separated by sections of disc spacers with 3" maximum diameter totaling at least 9 times more lengths than the summed length of the large disks or bobbins. An example configurations which would meet footrope requirements would include discs or bobbins with 13" minimum diameter separated by sections of disc spacers with 6" maximum diameter totaling at least 3 times more length than the summed length of the large disks or bobbins. (The 9" and 11" diameter disc size cited is slightly smaller than commercially available (10", 14") to allow for wear and variations in production).

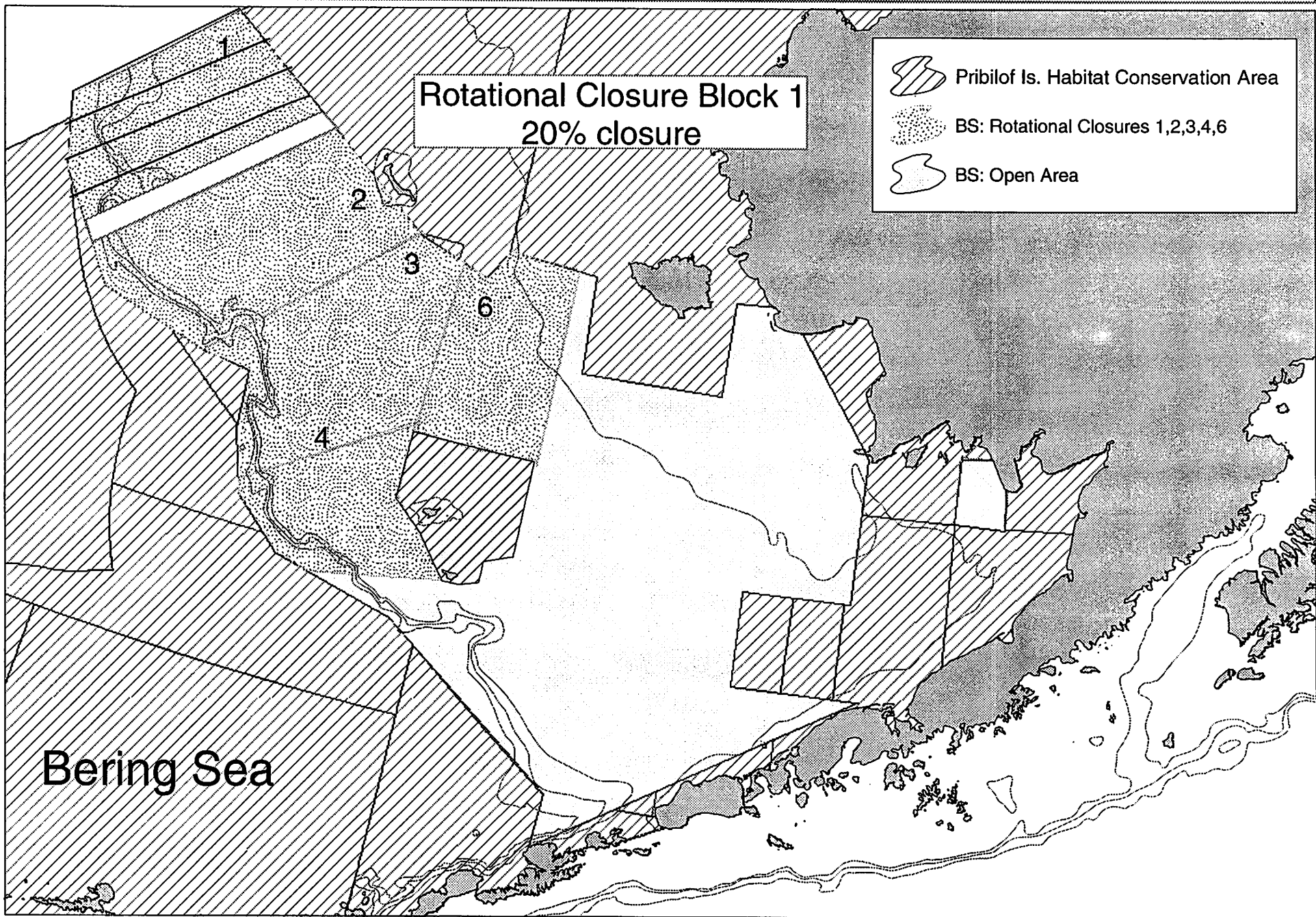
The measurement technique would need to account for reductions in gear height due to bending or distortion of the large diameter elements or large or off-center attachment holes. Metal weights or attached to or in-line chain on the sweeps would be restricted to within 18" of the large disks or bobbins. Two exceptions to the rules would be made: (1) The 100 feet closest to the doors would be unrestricted, and (2) the 50 feet of sweep closest to the end of the fishing line would be allowed to follow the footrope rule instead of the sweep rule.

EFH MITIGATION ALT 4: BERING SEA

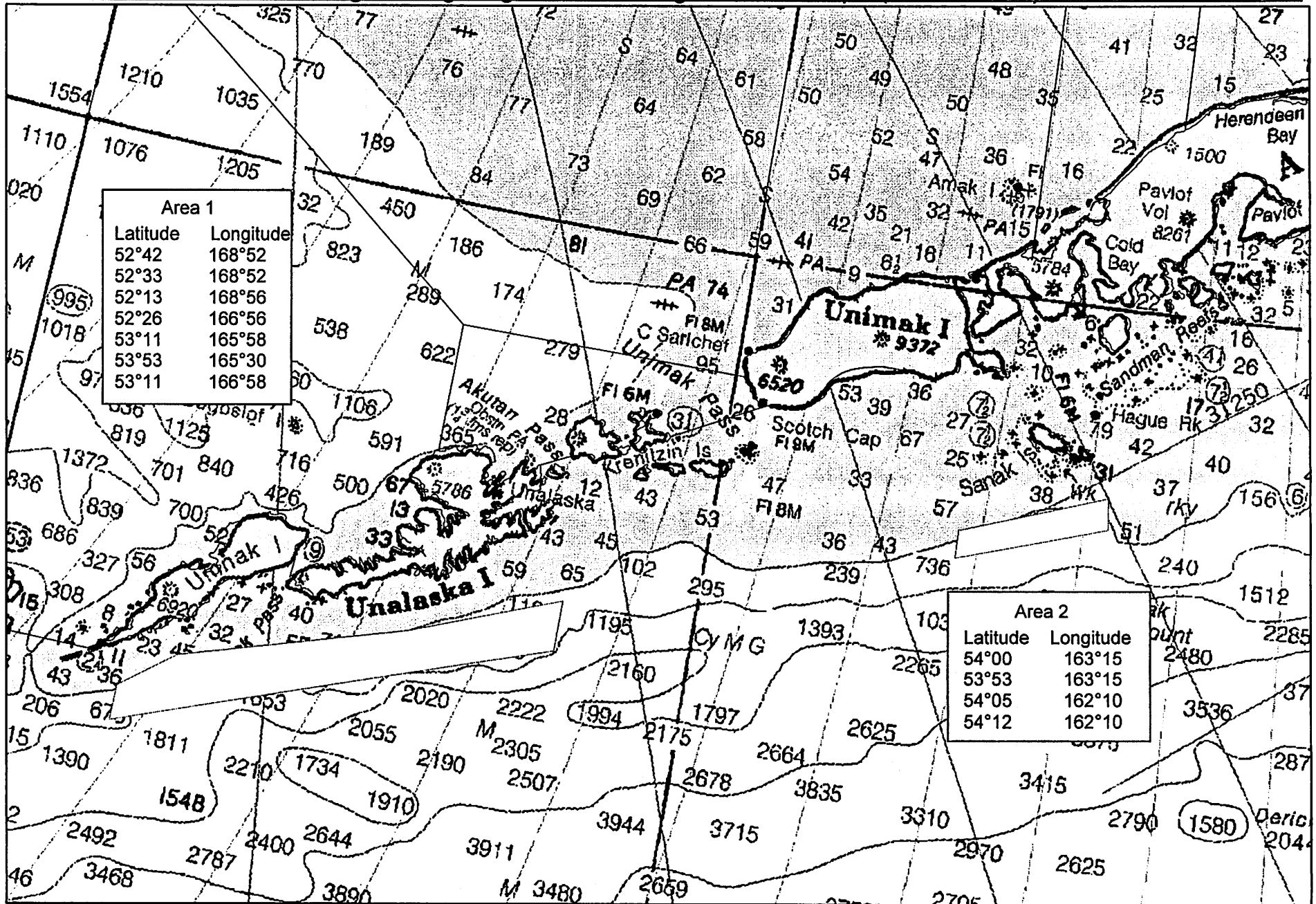
Rotational Closure Block 1
20% closure

-  Pribilof Is. Habitat Conservation Area
-  BS: Rotational Closures 1,2,3,4,6
-  BS: Open Area

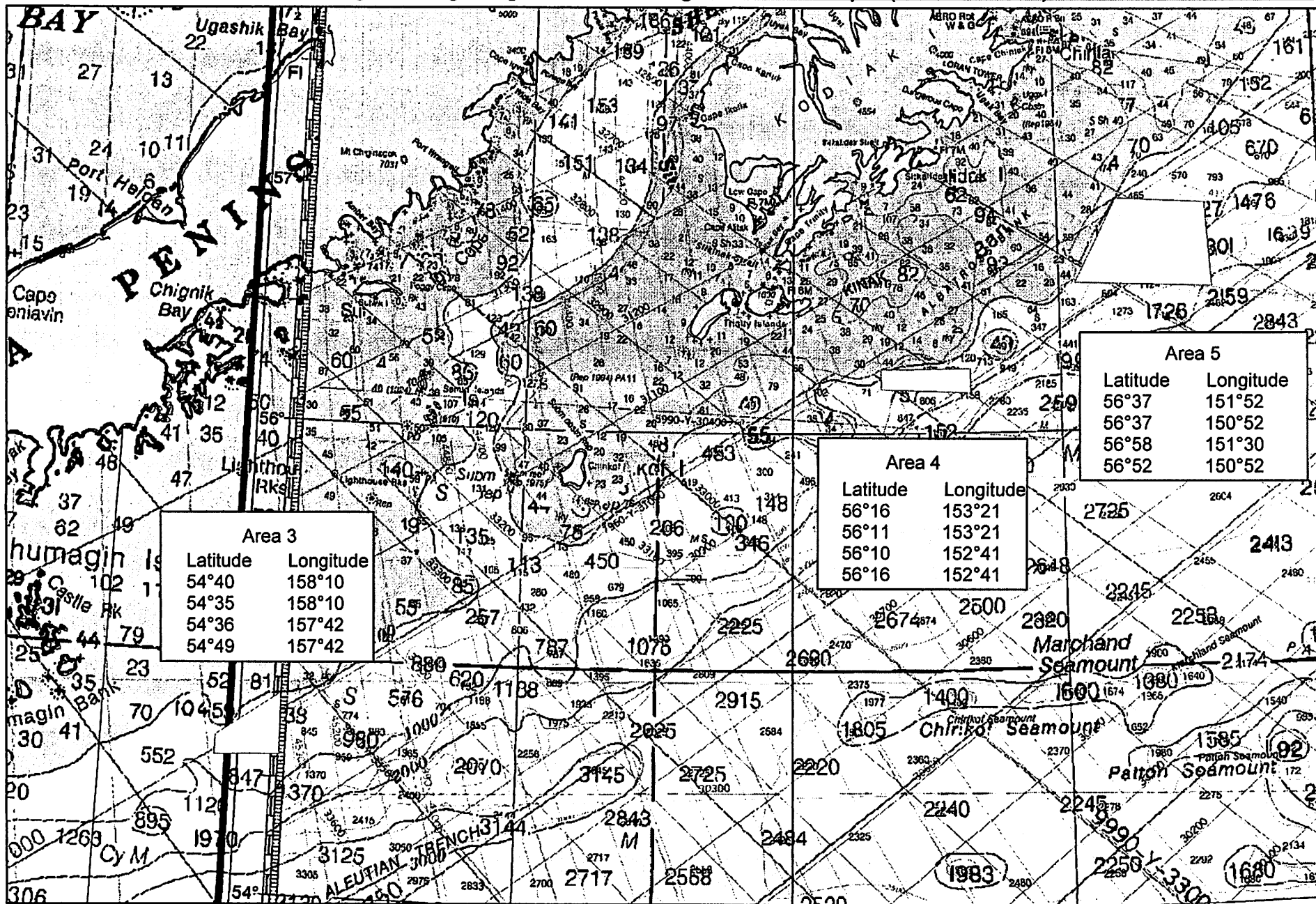
Bering Sea



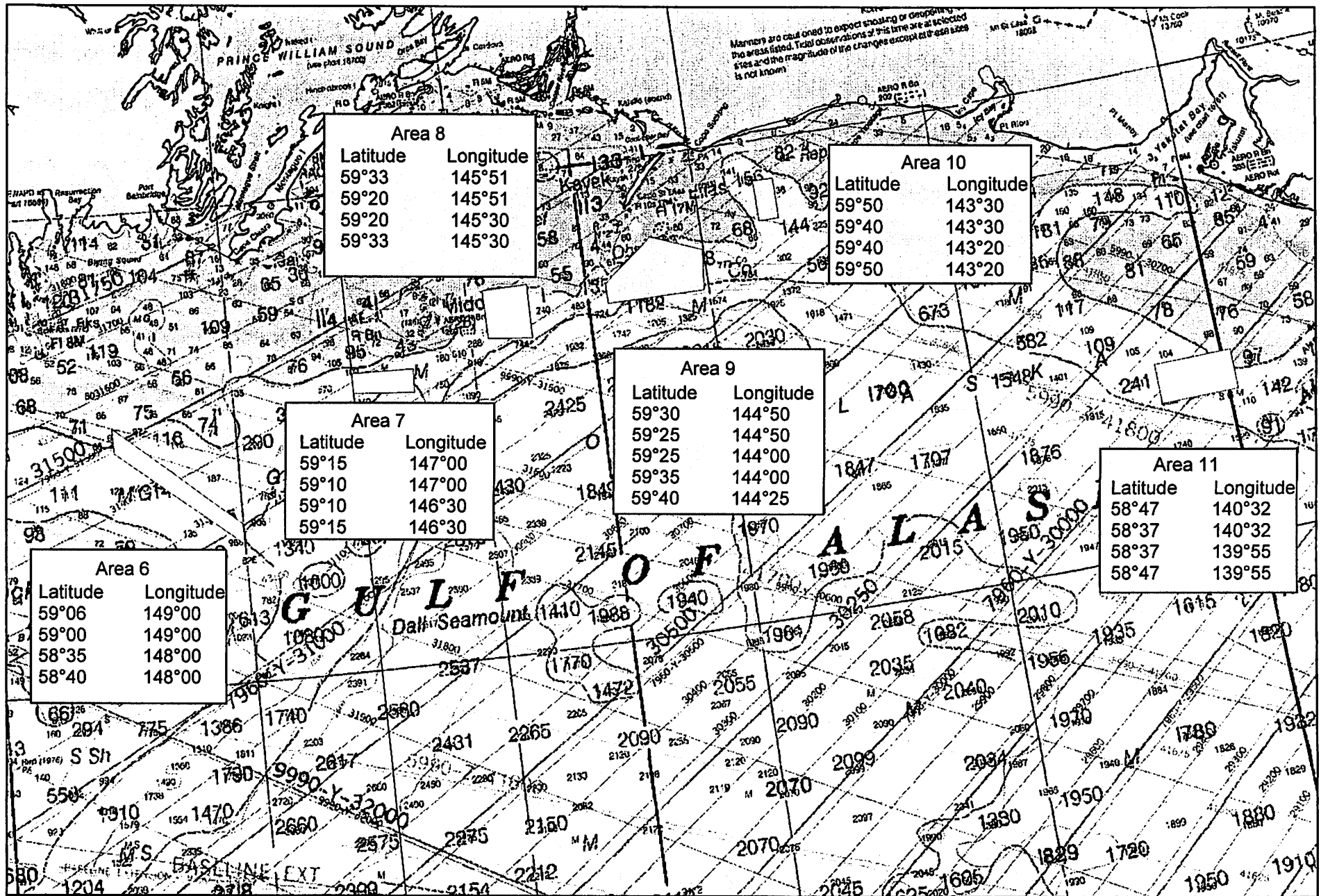
EFH Mitigation Alternative: The following area would be closed to bottom trawl gear targeting rockfish along the GOA slope (200-1,000m)



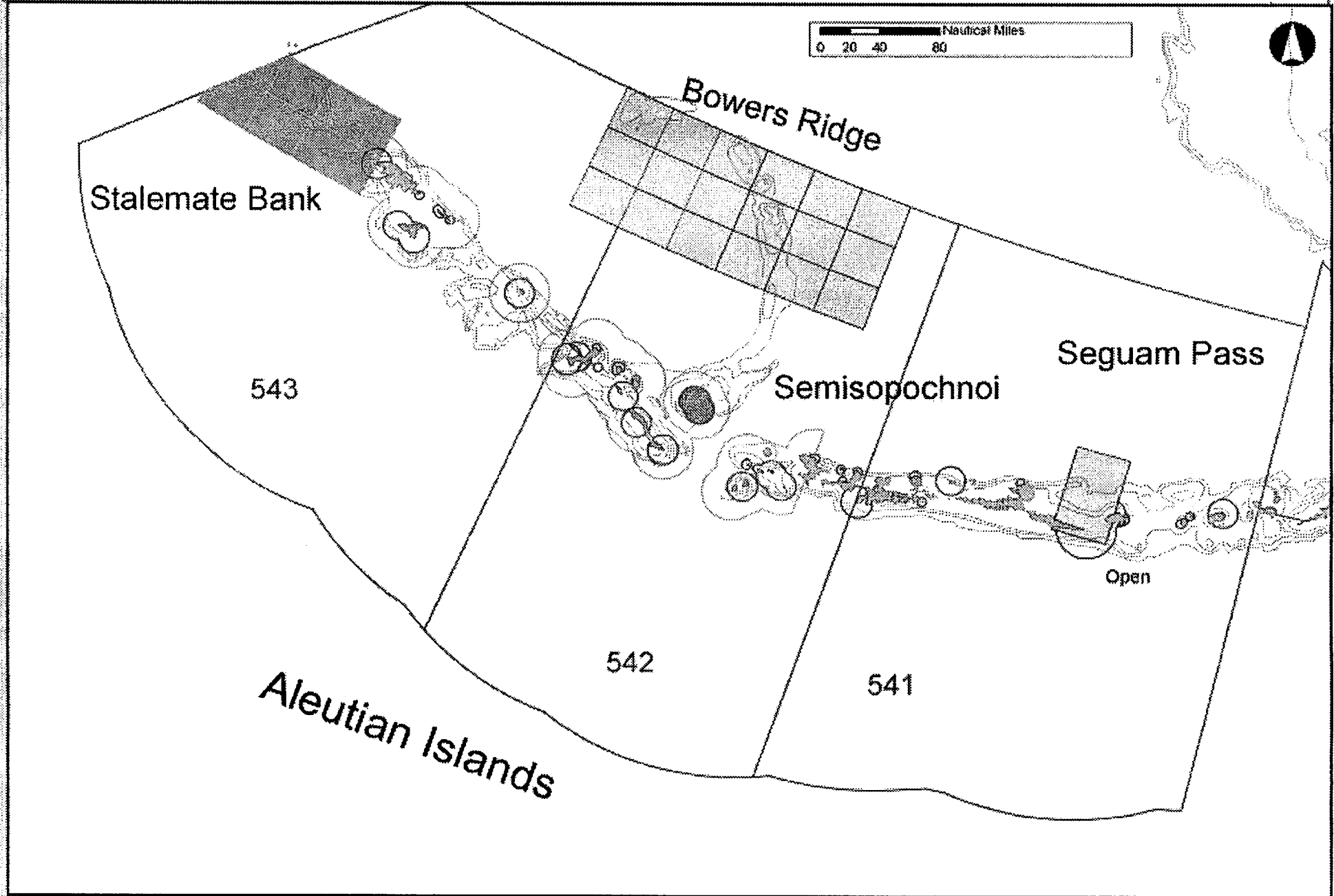
EFH Mitigation Alternative: The following area would be closed to bottom trawl gear targeting rockfish along the GOA slope (200-1,000m)



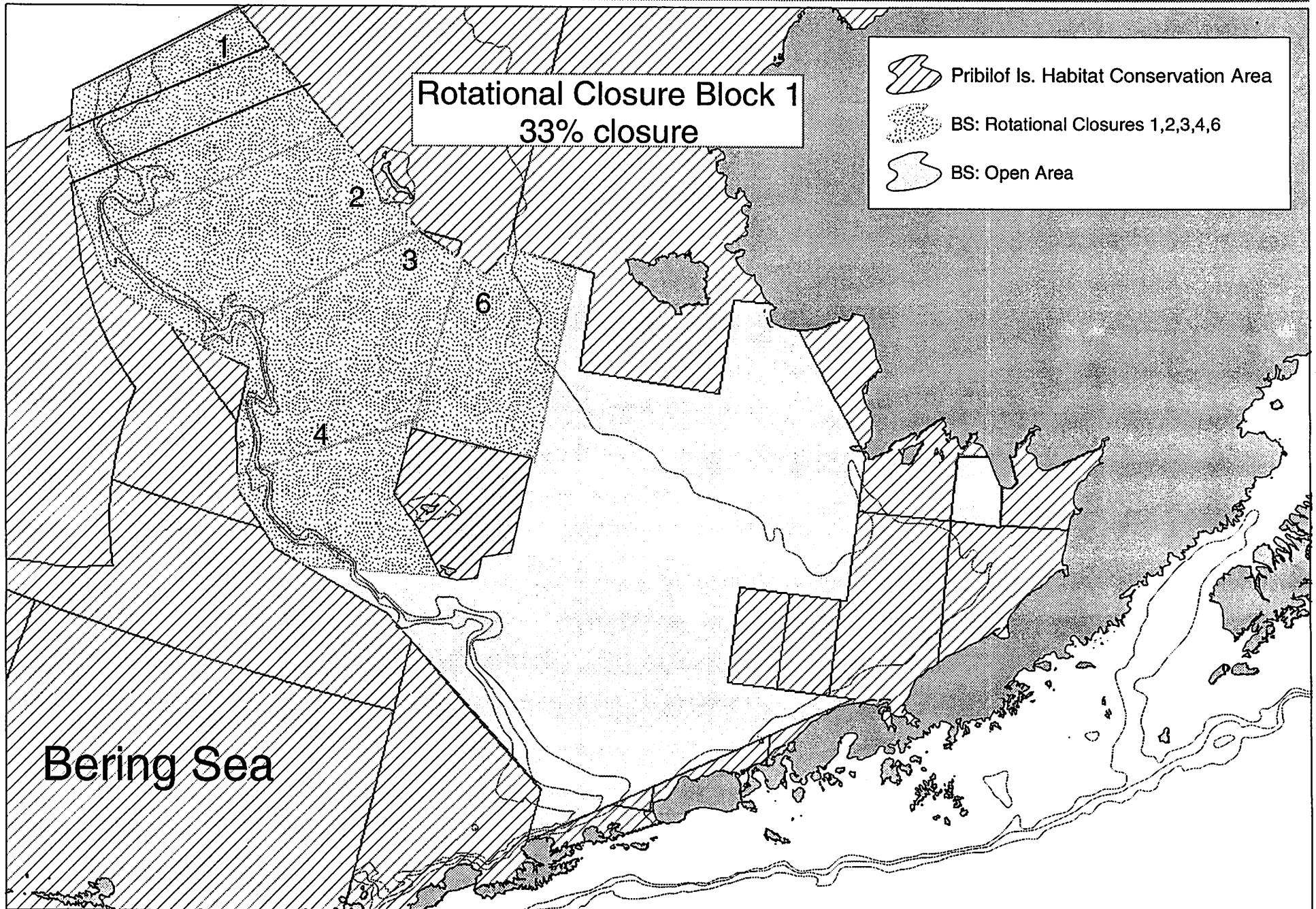
EFH Mitigation Alternative: The following area would be closed to bottom trawl gear targeting rockfish along the GOA slope (200-1,000m)



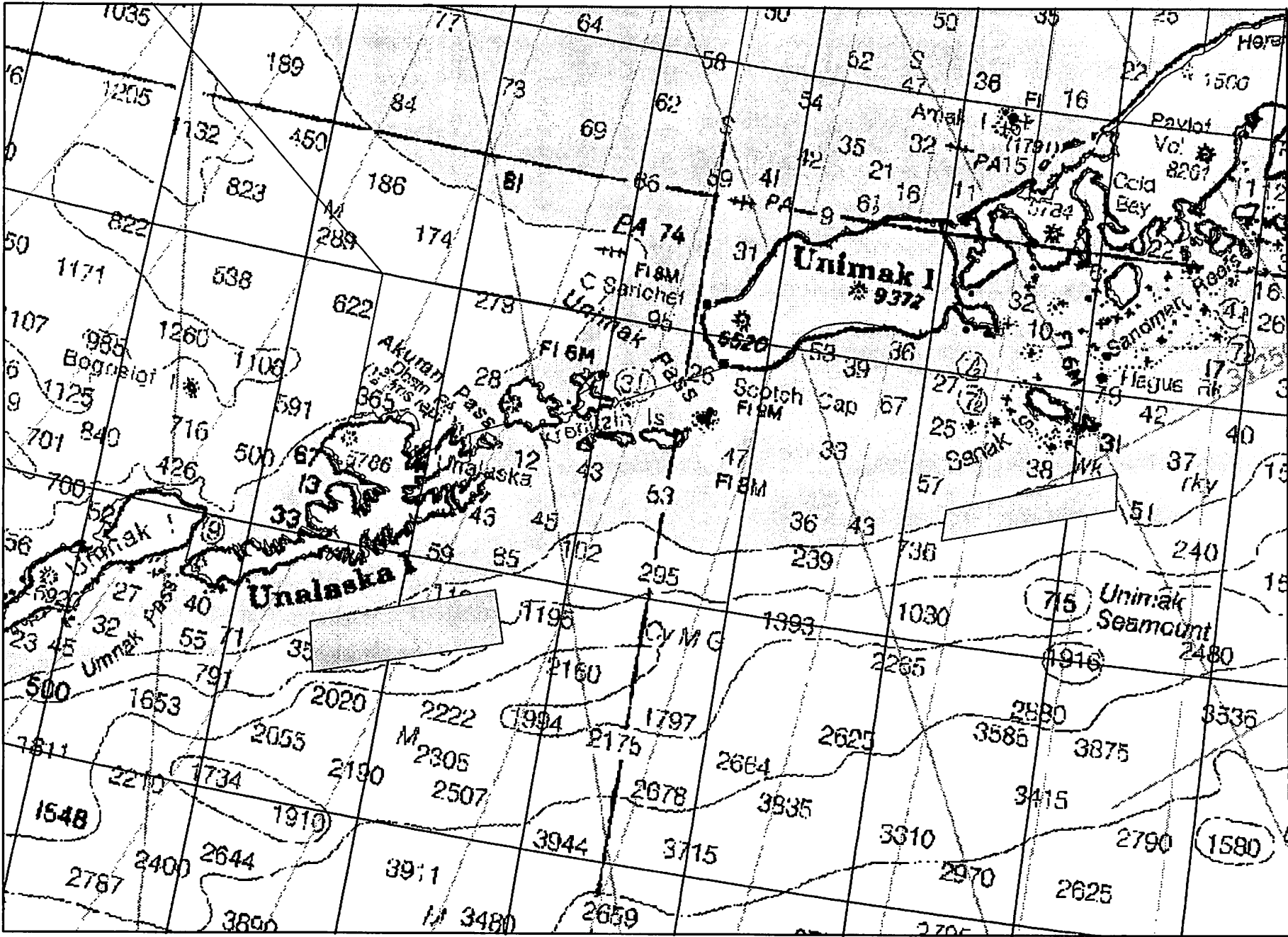
EFH Mitigation Alternative 4 : Aleutian Islands



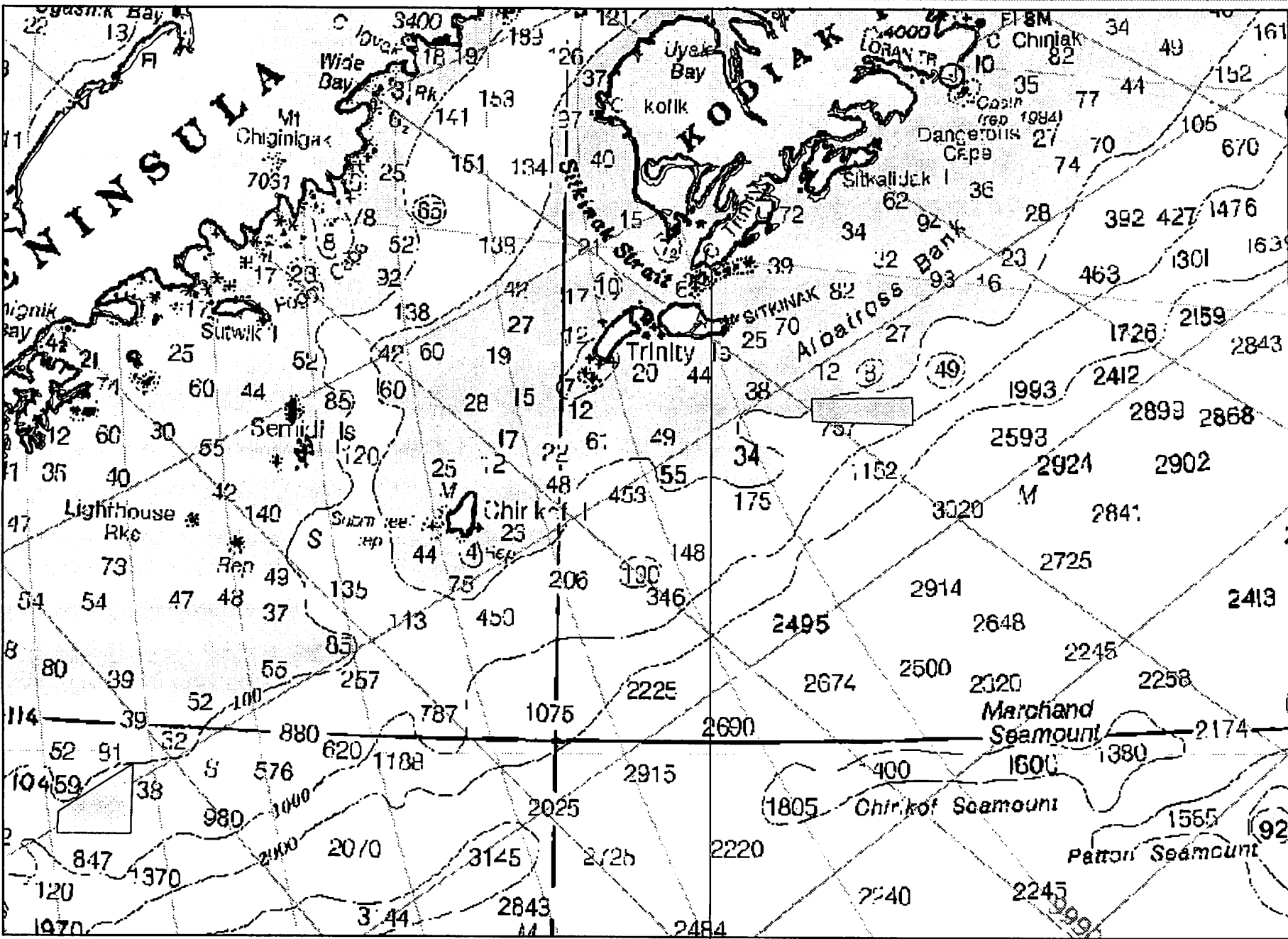
EFH MITIGATION ALT 5: BERING SEA



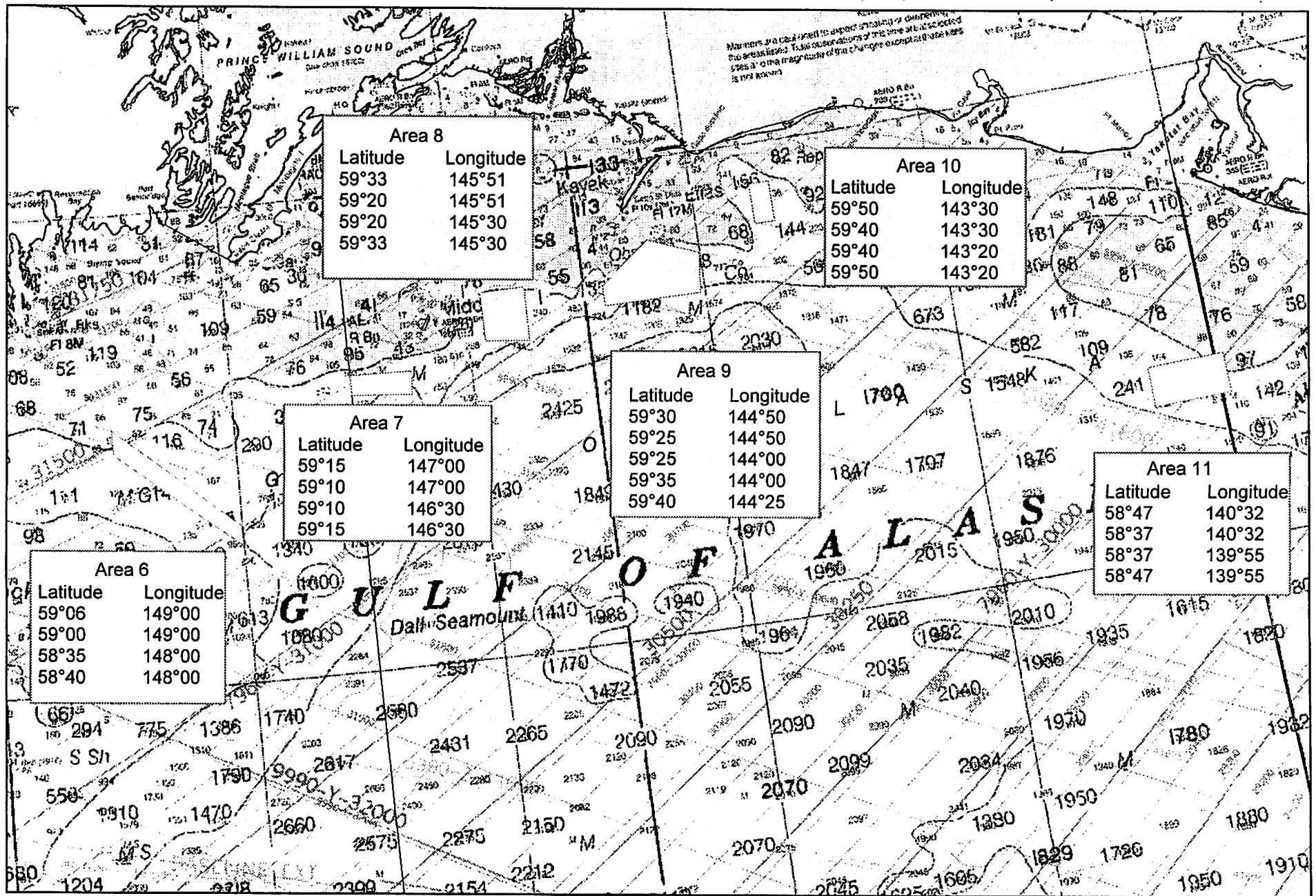
H Mitigation Alternative: The following area should be closed to bottom trawl gear targeting all groundfish along the GOA slope



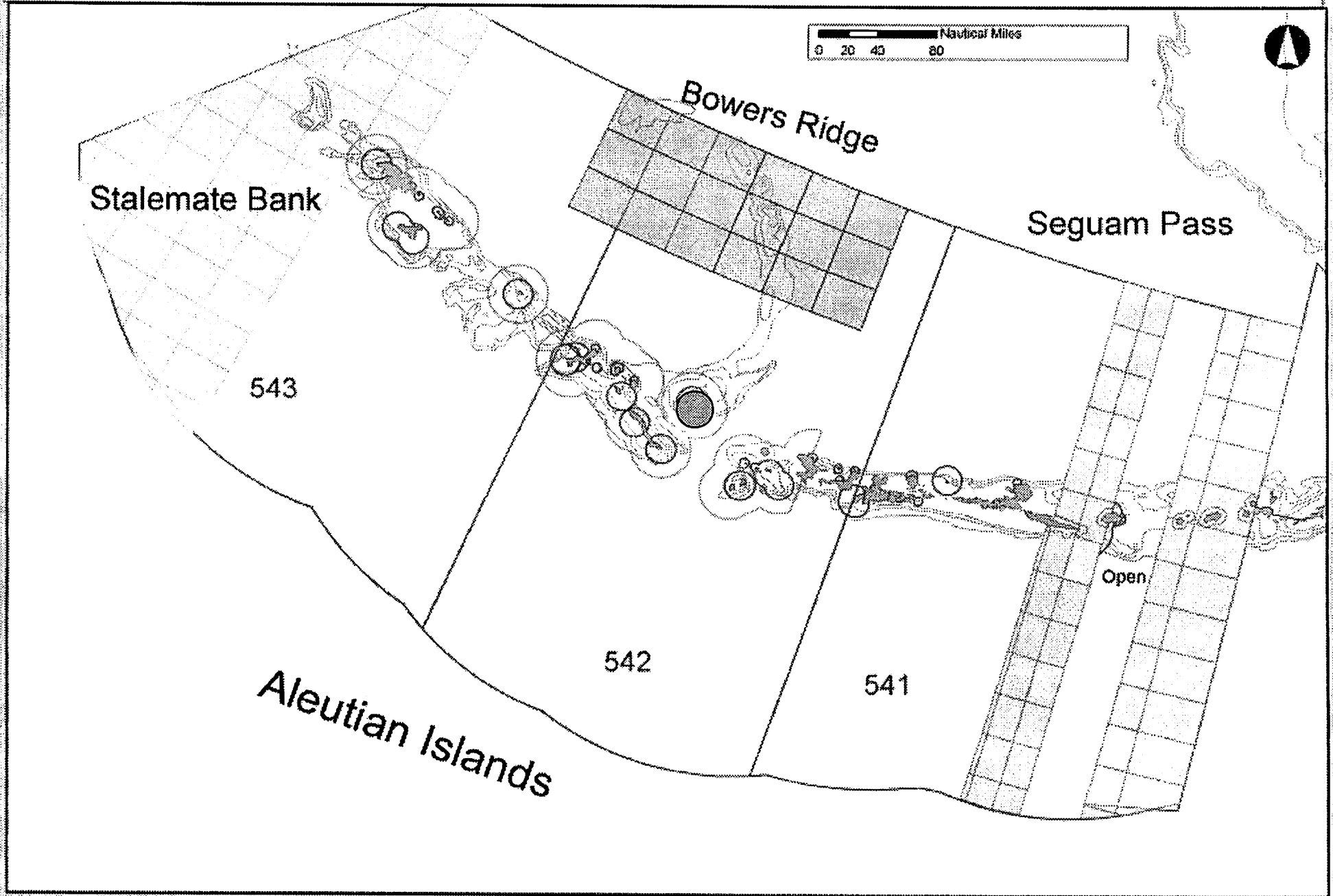
Mitigation Alternative: The following area would be closed to bottom trawl gear targeting all groundfish along the GOA slope



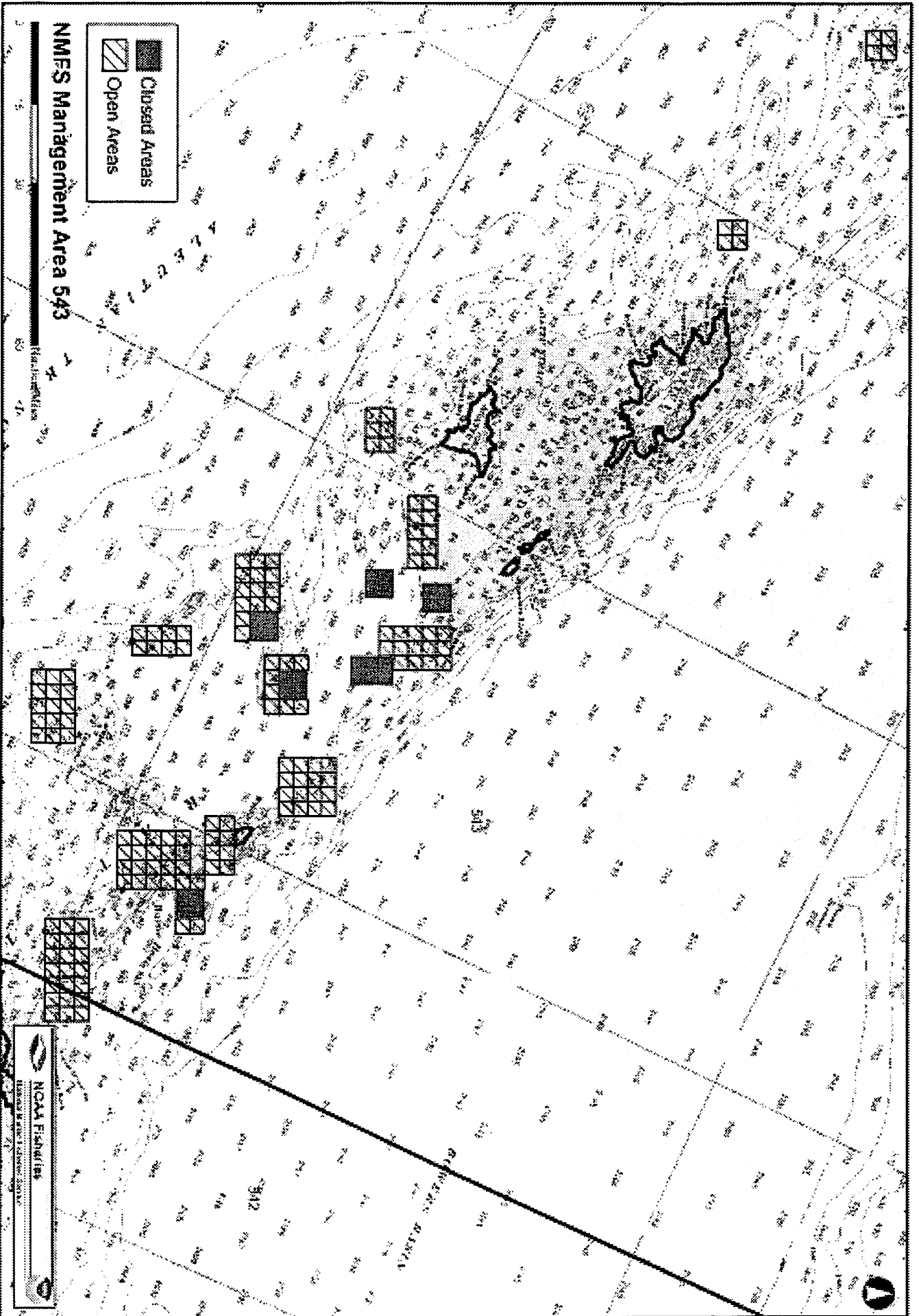
EFH Mitigation Alternative: The following area would be closed to bottom trawl gear targeting groundfish along the GOA slope (200-1,000m)



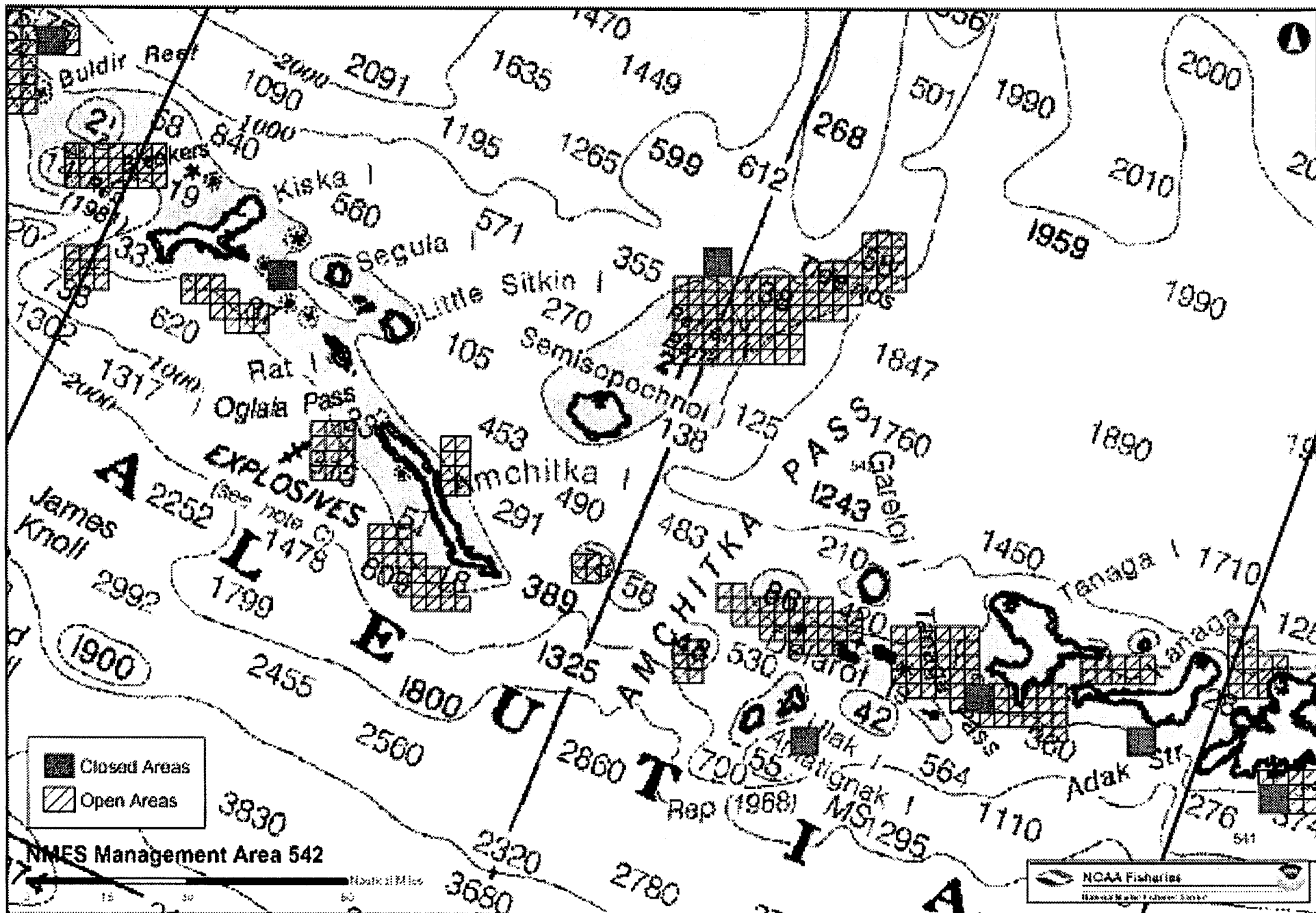
EFH Mitigation Alternative 5 : Aleutian Islands



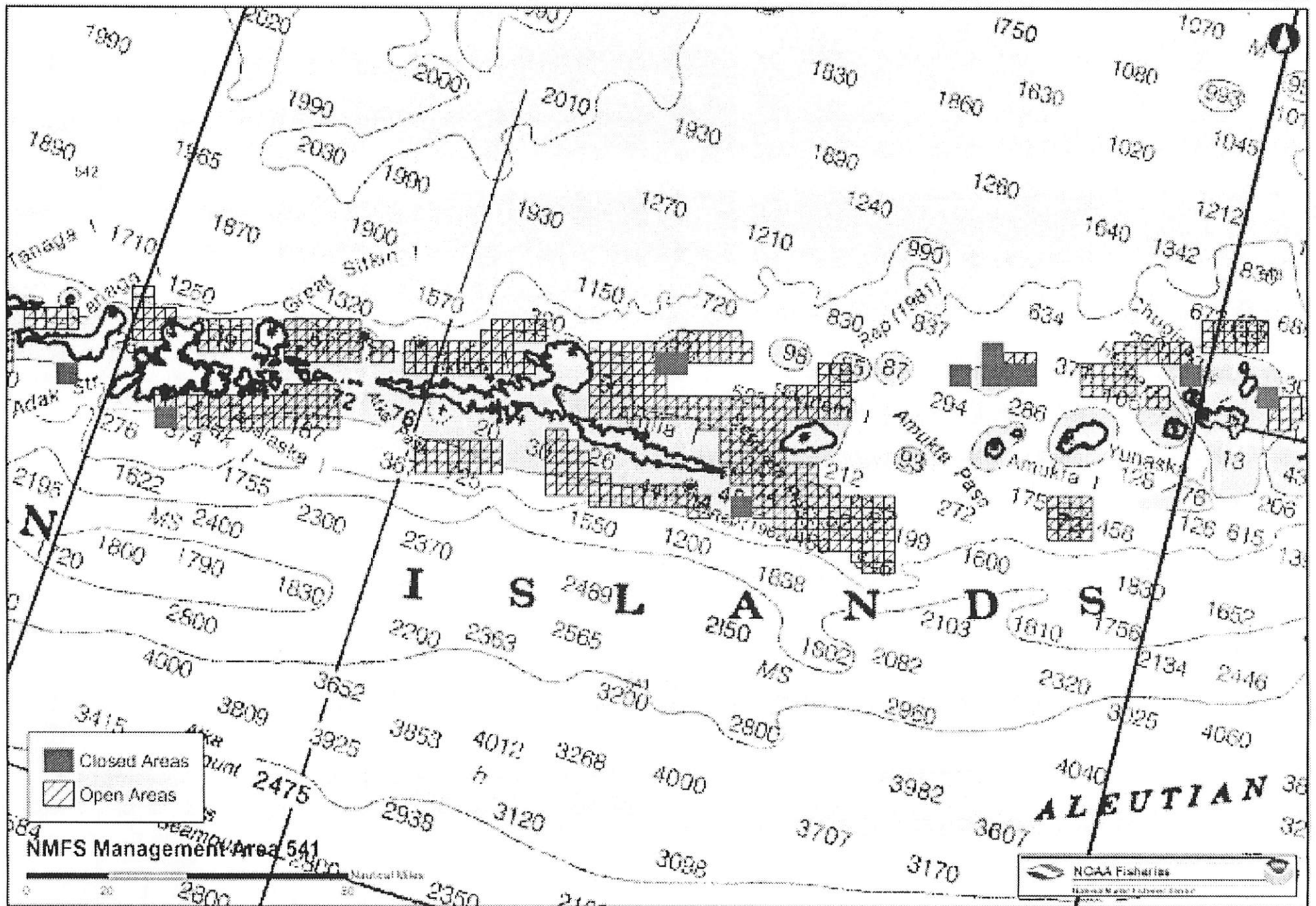
Alternative 5 - Aleutians Suboption



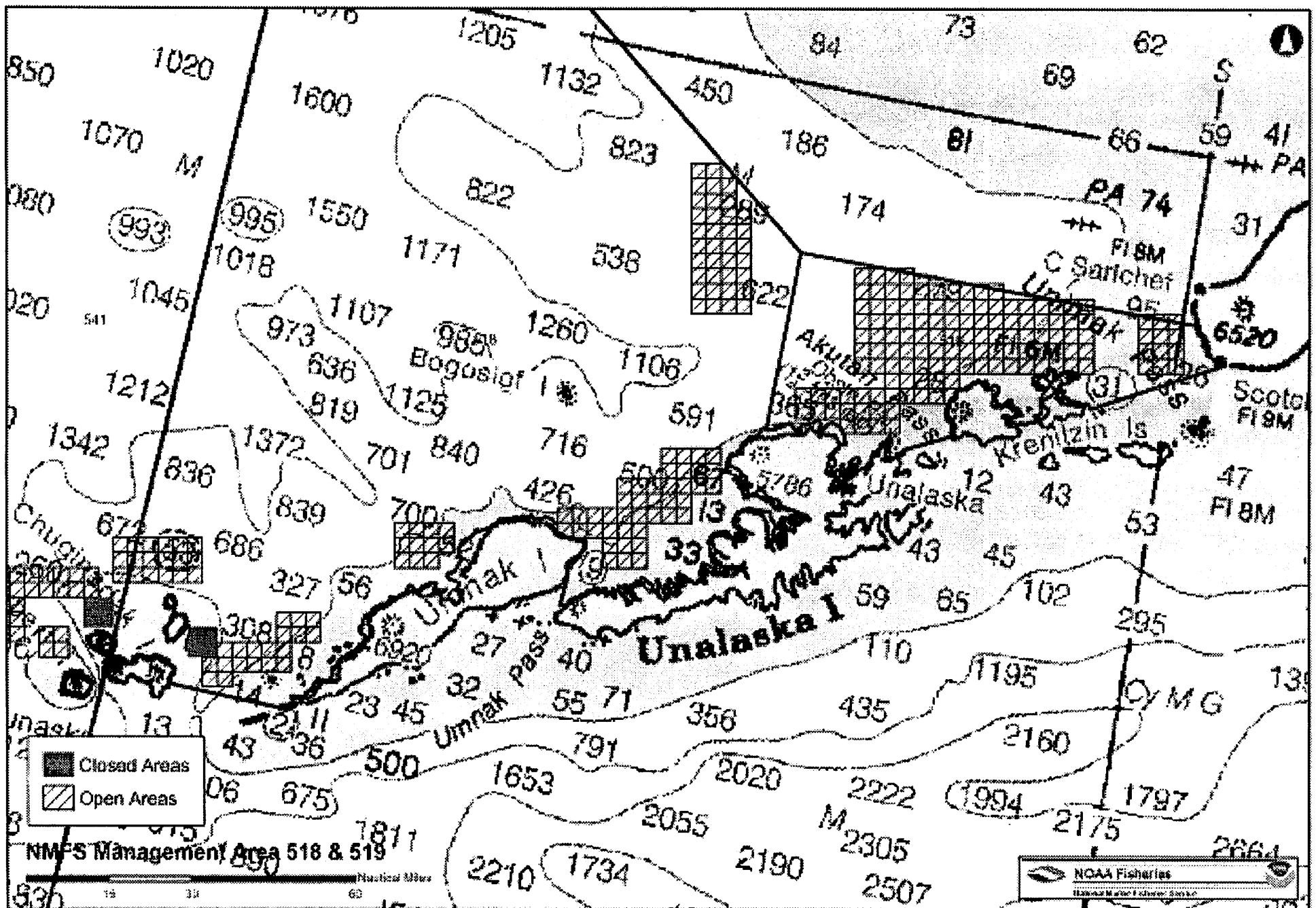
Alternative 5 - Aleutians Suboption



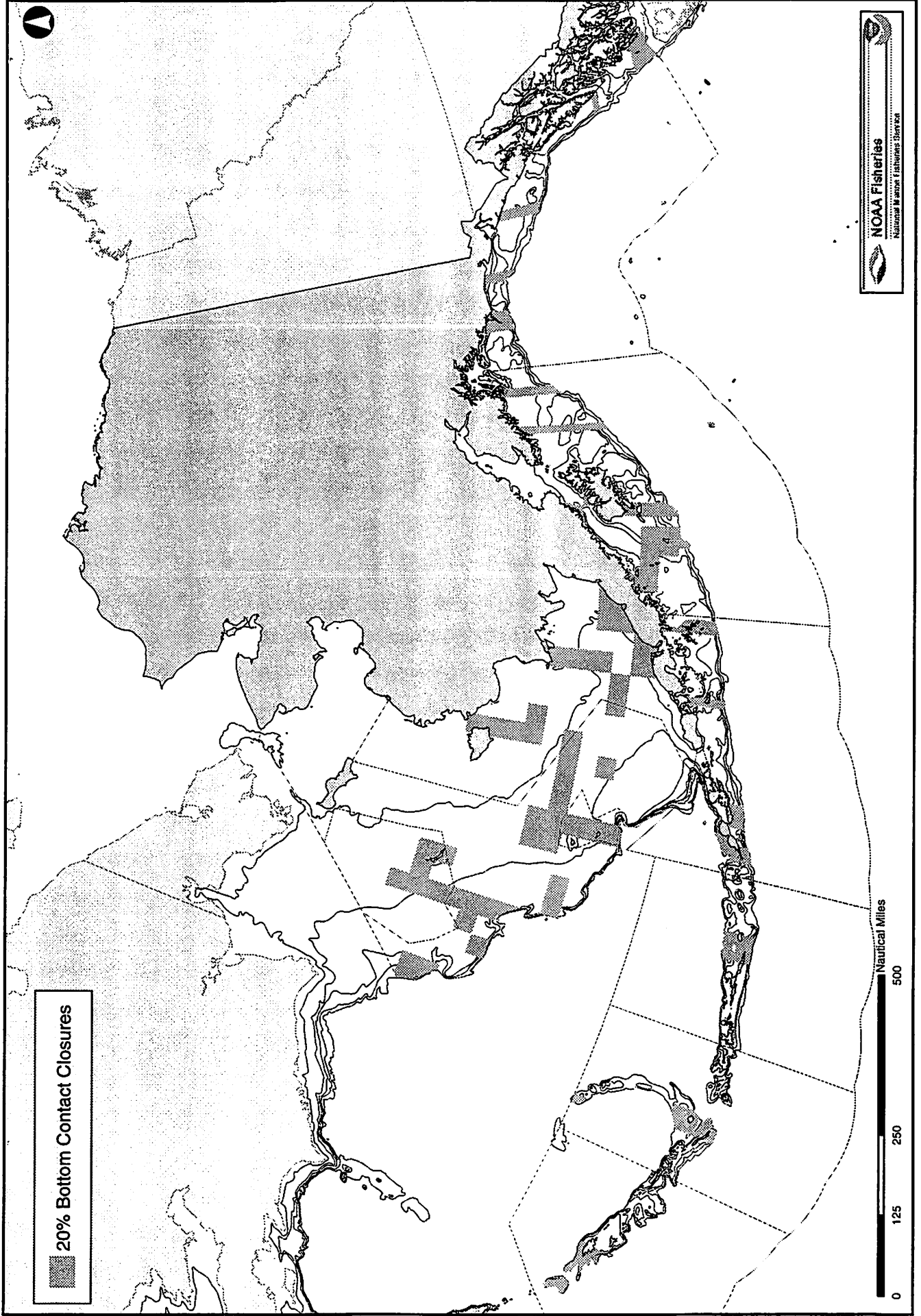
Alternative 5 - Aleutians Suboption



Alternative 5 - Aleutians Suboption



EFH MITIGATION ALTERNATIVE 6



Methodology used to determine location of closures for Alternative 6

The areas selected for closure to bottom contact gear (BCG) under Alternative 6 were determined based primarily on qualitative criteria although we considered quantitative information on bottom trawl and longline fishing intensity throughout Alaska and the intensity of crab fisheries by statistical area in the Bering Sea. Also considered were survey and observer data on the distribution of living substrates, although it was assumed in most cases that protection to living substrates would occur if BCG closures occurred over a cross section of habitat types dispersed geographically.

We tried to accommodate the desire to cover a cross section of habitat types by having the closures extend from the 1000 m contour shoreward to the beach and geographically dispersing the closures throughout the larger areas. In some cases general knowledge of geology/habitat types was considered. For example in the Central Gulf we dispersed the closures over sections of the seafloor that were formerly glaciated such as in the vicinity of Portlock bank and non-glaciated areas such as near Albatross Bank. We also considered the location of specific habitat features. For example, the BCG closure in the EG southeast of Yakutat was strategically placed because it incorporates the northeast corner of the Fairweather Grounds yet does not include the entire Fairweather Grounds. The Fairweather Grounds are an important fishing area with sensitive habitat (corals). In the Central and Eastern Gulf we incorporated the seamounts which are lightly fished yet are known to have an abundance of coral and sponge habitat.

Strong consideration was given to the location of current partial closures (e.g., seasonal, species specific, or gear specific areas). Many of the BCG closures were placed adjacent to and within some of the partial closures. In most cases we started with complete statistical areas as BCG closures then adjusted the boundaries to accommodate the objective of having a mix of fished and not fished areas and the constraint of approximately 20% closure in a specific area. In some cases statistical areas were split perpendicular to the depth contours and the split out section moved to another location to support this objective. For example in the vicinity of Portlock Bank the original location of the BCG closure covered most of the major bottom trawl locations on the Bank. We split the closure and moved the split out section to an area to the west with less fishing intensity. A similar process was done in the vicinity of Albatross Bank.

The "cod corridor" region of the Bering Sea was specifically avoided for a BCG closure. This is an area of intense fishing and the substrate type in this region is similar other lightly fished areas. A considerable portion of the BCG closures in the Bering Sea were placed in existing trawl closure areas. We considered the location of existing crab fisheries in the placement of the BCG closures within these closure areas. However the resolution of the crab fishery data available to us was by statistical area. In many cases we tried to avoid having the BCG closures in the immediate vicinity of fishing ports, although in some cases this was difficult to avoid, especially in the Aleutian Islands.

Summary of Preliminary Research Plan for Essential Fish Habitat (EFH)

Council Action on Research Component of EFH Mitigation Alternatives - Quick Summary

- Recommended to Council in October, 2002
- Included in October Council EFH Motion under:
In addition: b) each mitigation alternative shall have an experimental model developed to accomplish monitoring and research. Team EFH will be tasked to evaluate these experimental models.
- December, 2002, Council meeting - Staff clarified that this would include a research component within the status quo alternative

Long Term GOAL of Research

To evaluate the effects of fishing on habitat and to validate whether adopted minimization measures are necessary and effective (meet the intended purpose).

Research Objectives

To compare, under contrasting levels of fishing (fished vs. unfished), information such as habitat condition; and the abundance, composition, and size of habitat forming organisms; and local abundance of fish and prey.

The research closures will test whether habitat features that provide shelter, prey and other functions are altered.

Why Research Closures?

Research closures are a valuable tool due to their potential to provide controls in fishing intensity which will allow inferences on the effects of fishing.

The initial phase of planning will address fishery closures (and open areas) intended to produce contrasts (fished vs. not fished) in fishing pressure over comparable habitats.

Considerations in Design of Research Closures

- Contrast in Expected Fishing Intensity
- Enforceability (5 km x 5 km squares)
- Replicability (multiple sites within areas and multiple comparisons)
- Potential Sites (EBS, AI, GOA)
- Gear Types (closed to all gears)
- Length of Study (long term/permanent)

Sites in the Eastern Bering Sea

- North Side of Unimak Island (Cod Corridor) - research closure strips along depth corridor (approximate closure area = 16 5 x 5 km blocks)
- Middle of EBS Shelf in the area of sand/mud and consistent trawl effort east of the Pribilofs (approximate closure area = 16 blocks)

Sites in the Gulf of Alaska

- Albatross Bank and Chiniak Gully (approximate closure area = 24 blocks)
- Portlock Bank - proposed research closures have had some submersible observations (approximate closure area = 26 blocks)

Other Research Closure Sites Under Consideration

- Sites in the Eastern GOA
- Sites in the Western GOA
- Sites in the Aleutian Islands

Overall Plan - Where from here?

First - design a plan to be implemented under status quo conditions

Second - modify the design as needed for the various minimization alternatives being considered

In Summary

The research design will test the efficacy of each mitigation alternative, as well as test whether fishing changes the bottom habitat.

The research design will evaluate recovery rates in situations where fishing impacts habitat.

For More Information Read

DRAFT
Preliminary Maps and Research Plan
for
Proposed EFH Research Closure Areas
Dr. Jeff Fujioka - January 24, 2003

DRAFT
Preliminary maps and Research Plan
for
Proposed EFH Research Closure Areas

Dr. Jeff Fujioka - January 29, 2003

Attached are two maps showing the first step at selecting research closures. Also included is a incomplete draft of an essential fish habitat (EFH) research plan that address the objectives, enforceability and other considerations in determining the closure areas.

The proposed closures, that have been determined so far, are primarily located in heavily fished areas on the Bering Sea (BS) shelf including the Cod Corridor, and in the Gulf of Alaska (GOA) near Kodiak Island and on Portlock Bank. Research closures in the eastern GOA, western GOA and Aleutian Islands (AI) are being considered. Research closures in less heavily fished areas but in different habitat types are also under consideration.

The maps show closures as clusters of 5km x 5 km squares. These clusters will be adjusted to have corners at whole minutes of latitude and longitude to provide a minimum of 6 nm long borders, preferably oriented east-west and north-south. An exception to this are the staggered clusters shown in the BS Cod Corridor which will be rectangles or parallelograms with borders not necessarily oriented east-west or north-south. Fishermen in this area have a preference to make long trawls parallel to the depth contour, although the slope is slight. Closures in the GOA slope areas are not oriented along the contour although the slope is much more significant than in the Cod Corridor. Fishermen who fish the GOA slope area can be quite selective where they fish. Closures with borders that parallel slope contours would confound the fished/unfished factor with depth factors. Additional areas would be required to deal with the confounding. Closures with borders that parallel slope contours may not be parallel to lat-long, making compliance and enforcement more difficult.

The maps also show relative fishing intensity (area swept/area blocksize) for each block during the years 1997-2001. These plots were made with an ArcView join of the individual years to a slightly different grid, as a result the plots have been spreadout and displaced somewhat and are also not the true sum of the individual yrs. The location of the research closures shown on the maps were based on this distribution. A more appropriate plot has recently become available and may result in some adjustment in the location of the closures.

This DRAFT EFH research closure plan and preliminary maps should be considered as a suboption under mitigation/minimization Alternative 1 - Status Quo.

DRAFT
EFH RESEARCH CLOSURE PLAN

Dr. Jeff Fujioka - January 29, 2003

The MSFCMA mandates the protection of essential fish habitat of the Nation's fishery resources. As the regulatory agency for federally managed fisheries, NMFS is required to minimize adverse effects to EFH due to fishing activities. As a result of that responsibility NMFS is in the process of determining alternative measures to minimize to the extent practicable the adverse effects to EFH. Due to a considerable lack of available information there is a great deal of uncertainty about the type and extent of measures that would actually be necessary or effective. The EFH Final Rule instructs that establishment of research closures be considered to evaluate the impacts of fishing activities. This research plan is an attempt to design and utilize research closures as a method to obtain information needed to protect habitat in a practicable manner. We will first provide a design to be implemented under status quo conditions, then attempt to modify the design as needed for the various minimization alternatives being considered.

NMFS is concerned about how much the fishery has changed the bottom habitat. For example, recent submersible observations of Portlock Bank indicate very little bio-structure at risk, but it is not clear to what extent fishing is the cause or whether the bottom has always been this way. Could bottom habitat be altered in such a way as to effect species specific suitability and be a factor in long term changes in fishery stocks? A species that utilizes demersal coloration to conceal itself from predators or prey may well do better in habitat with reduced biostructure than a species adapted to blend in with benthic structure.

GOALS AND OBJECTIVES

The long term goal of this research is to understand effects of fishing on habitat and validate whether adopted minimization measures are necessary and effective.

Objectives are to determine whether fishing does or does not reduce or alter benthic habitat and whether such alterations effect the shelter, food, species composition, and ultimately the productivity, or MSY of important FMP species. Specific objectives of the research closures would be to compare, under contrasting (fished vs not fished) levels of fishing, information such as habitat condition, and the abundance, composition, and size of habitat forming organisms, and possibly local abundance of fish and prey. These research closures are not expected to be able to demonstrate differences in stock productivity due to fishing impacts on habitat, but are a first step in seeing whether habitat features that provide shelter, prey, and other functions are altered.

METHODS

Research on the effects of fishing can appropriately consist of a variety of approaches. Research closures are a valuable tool due to their potential to provide contrasts in fishing intensity which will allow inferences on the effects of fishing.

The initial phase of planning will address fishery closures (and open areas) intended to produce contrasts (fished vs not fished) in fishing pressure over comparable habitats. Habitat can then be subsequently sampled to detect possible differences in treatment effects and where observations and experiments can be conducted to better understand the dynamics of habitat features and their function in the productivity of important fishery species. The observations can be both before vs after closure comparisons and adjacent fished vs closed comparisons of habitat. Research funds and manpower availability may limit the amount of "before" observations that can be made prior to any expected recovery. The research closures proposed for the Portlock Bank area have had some limited observations by submersibles in recent years. Observations made before a closure is enacted may significantly strengthen the validity of the study in regions where habitat is highly variable. Where habitat is relatively uniform over an area large enough to accommodate sufficient replication, fished vs unfished observations should be sufficient.

CONSIDERATIONS IN DESIGN OF RESEARCH CLOSURE AREAS:

Objectives of study

Applicability of any study results to actual fishery habitat require that the study take place where the fishery takes place. There will always be questions on the applicability of results obtained from surrogate areas.

Contrasting treatment effect

A primary consideration in locating the research closures was to provide for a comparison between contrasting levels of fishing intensity where all other factors are as similar as possible and results can be applicable to fished areas. In order to achieve this, research closures are placed where fishing intensity is relatively high. However, research closures may also be necessary in less heavily fished areas where habitat is thought to be different than that in heavily fished areas.

Enforceability

The Coast Guard conducting air/sea patrols, felt they could enforce a closed area that is 5-6nm on a side, which is bigger than the current 3nm SSL no-transit areas which they currently patrol. Additionally, they provided additional information on things that affect enforceability of closed areas, from a CG perspective. They provided the following suggestions, recognizing that they may conflict with other considerations:

EFH Closed area enforceability elements:

1. The smaller the total # of areas the better
2. Simple geometric shapes are better
3. Less corner points to define the shape of the closed area the better - easier for both CG and fishermen to plot.
4. Best case for CG enforceability - simple square/rectangle areas, oriented N-S, E-W, corner points at whole minutes of LAT/LONG
5. What is going to be the nature of the closure? Options include:
 - o No directed fishing for X,Y,Z species
 - o No bottom trawling
 - o No trawling
 - o No fishing by anyone holding an FFP
 - o No transit zones

The Coast Guard would prefer a closure type that meant that presence alone (no transit) or activity alone (no fishing) proved a violation. A closure type that required the Coast Guard to prove a particular targeted fishery or a specific gear type was being conducted would make patrolling, particularly from the air, more challenging.

They think that VMS could potentially play an important role in enforcing these closure areas, just as it does for the SSL closed areas. But that is a system that NOAA Office for Enforcement owns, so felt Office of Enforcement address its applicability.

The research plan will consider the following features:

Practicability

- Consider orienting long borders parallel to desired towing direction, for eg. in the Cod Corridor, apparent tow direction will be somewhat oblique to latitude or longitude. This may also provide sharpest contrast between fishing and not fishing, however, this may conflict with making areas simple and in simple patterns if the borders do not align N-S, or E-W. Closure boundaries parallel with slope contours will also result in the treatment factor being confounded with depth along the parallel border. To deal with the confounding, additional research closures may need to be added, adding to the burden of compliance and enforcement.
- Some regularity or pattern to closures if small and numerous.
- Simplicity in definition and shape and form
- Consider imposed costs to enforcement and fishing industry

Contrast in Fishery

- Produce contrasts in expected fishing intensity. Placed in areas of high fishing intensity or a range of intensities,
- Borders result in sharp contrasts if possible.

Replicability

- Multiple sites within areas to allow between site replication,
- Multiple comparisons along border to measure within site variation.
- Attempt to minimize confounding of habitat, geographic, oceanographic, biological and fishing factors to extent possible.

Potential Sites

- Eastern Bering Sea: ~10,356 5x5km blocks fished during 1997-2001.
 - North side of Unimak Island (Cod Corridor) - strips along depth contour (approximate closure area = 16 5x5km blocks).
 - Middle of EBS Shelf in the area of sand/mud and consistent trawl effort east of the Pribilofs (approximate closure area = 16 blocks).
- Aleutian Islands ~ 2,044 blocks fished during 1997-2001.
- Gulf of Alaska: ~ 3,510 blocks fished during 1997-2001.
 - Albatross Bank and Chiniak Gully (approximate closure area = 24 blocks).
 - Portlock Bank (approximate closure area = 26 blocks)
 - Southeast: Establishing research open areas within extensive closed areas were initially considered. However, it may be simpler and provide more scientific control and precision to conduct fishing under special permits in areas that have been closed for an extended period.

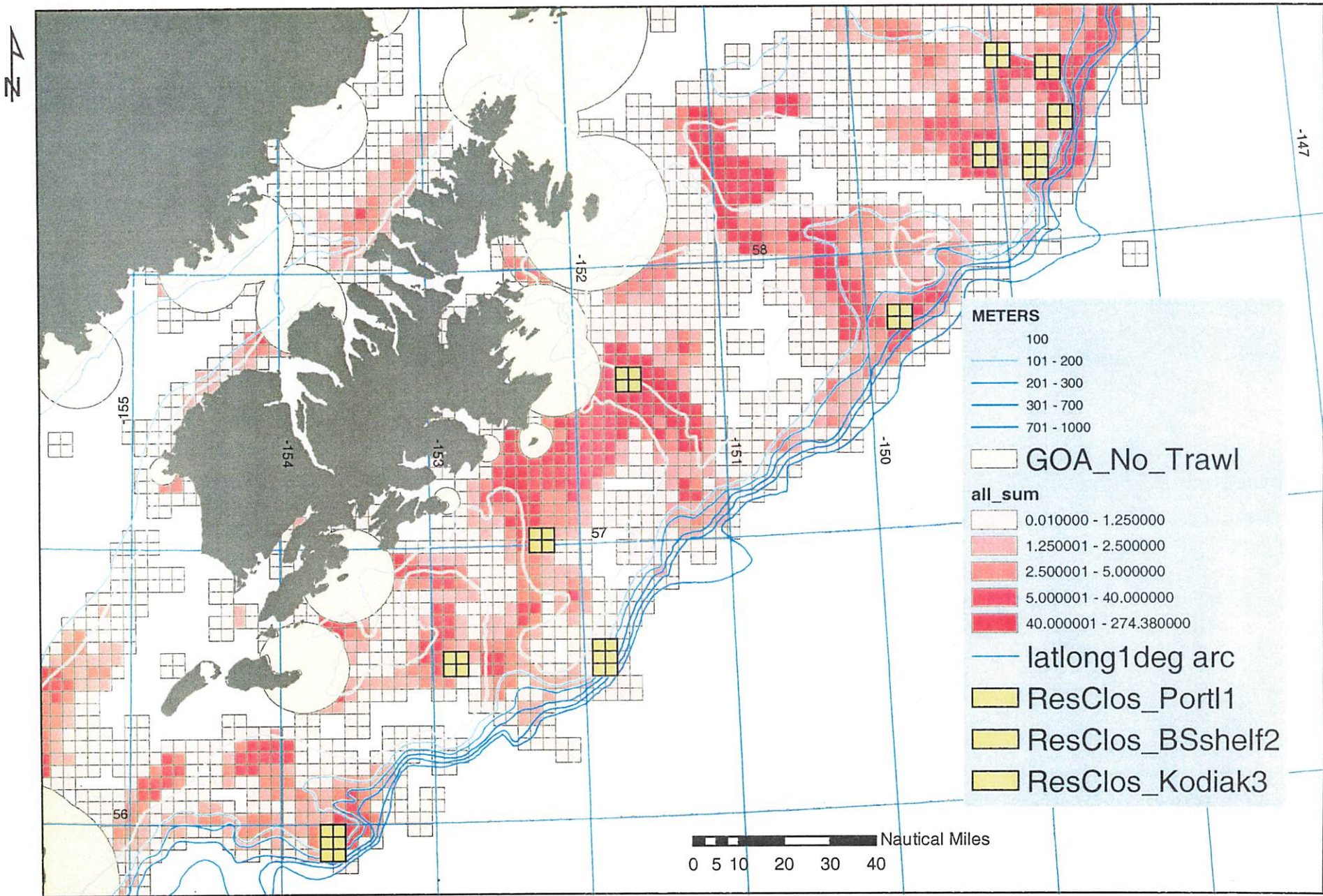
Gear types

- To differentiate effect of different gear types would require closures of a mix of gear types. This objective would require more areas and a more complex design that would probably be less powerful. A mix of allowed gear types would also make enforcement difficult.
- Recommend closures to all gear types.

Length of Study

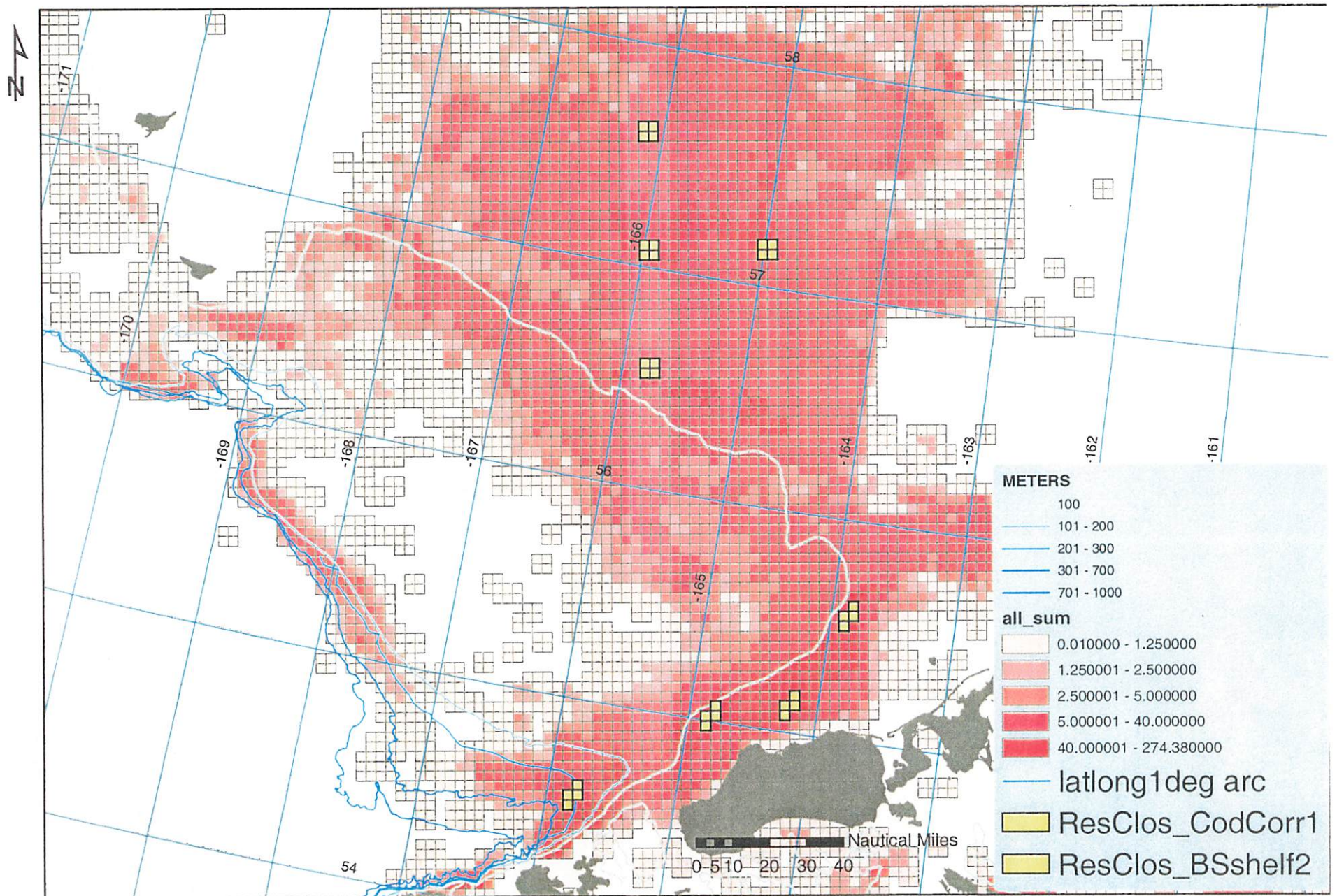
- Recovery may involve a succession of community types and require a time scale of several years or decades.
- Potential closures should be long term.

Gulf of Alaska Proposed EFH Research Closure Areas - Alternative 1-Suboption



Bering Sea

Proposed EFH Research Closure Areas - Alternative 1 - Suboption



EFH COMMITTEE MINUTES

For the January 26, 2003, EFH Steering Committee Meeting

Committee Members present: Stosh Anderson (vice-chair), Heather McCarty, Scott Smiley, Ben Enticknap, John Gauvin, Earl Krygier, Glenn Reed, Michelle Ridgway, Gordon Blue, Jon Kurland

Agency Staff present: Cathy Coon (NPFMC), David Witherell (NPFMC), Cindy Hartmann (NMFS-HCD), John Olson (NMFS-HCD), John Lepore (NOAA-GC), Scott Miller (NMFS - Analysis Team), Lew Queirolo (NMFS, Alaska Region, Economist), Kenneth Hansen (NMFS-Enforcement), Phil Thorne (Coast Guard).

Public: Al Burch, Joe Childers, Ron Clarke, Steve Copps, Kevin Kennedy, Terry Leitzell, Paul MacGregor, Brent Paine, Whit Sheard, Geoff Shester, Thorn Smith and Arnie Thompson.

The EFH Committee met on January 26, 2003 in Seattle, WA. The intent of the meeting was to receive staff reports on existing mitigation measures with respect to the Gulf of Alaska (GOA), Bering Sea (BS) and Aleutian Islands (AI) area boundaries, receive staff reports on new mitigation alternatives (Alternative 5b and 6), discussion criteria for the trawl gear modification, and discuss the pre status quo baseline for the EIS analysis. Additional discussions planned were the HAPC process and definition of terms. A draft agenda was distributed prior to the meeting.

Additions/Corrections to agenda

Jon Kurland will give an overview of EIS process before item three on the agenda. In addition, the draft EFH research closure plan will be presented by Cindy Hartmann, after agenda item five.

Overview of EFH Process and Schedule Extension Request

NMFS is now requesting a 12-month extension on the EIS process. The extension has not been approved yet, but the effort to extend the schedule has been started. The complexity of the alternatives has been increased, both in numbers and the details of each alternative. So, there are costs to having more complicated alternatives and we may have to change the original schedule to deal with this level of complexity.

Heather McCarty asked about what the schedule would look like with the extension. Jon Kurland replied that everything would be moved out exactly one year, so that the DEIS would be out by August 2004. A preliminary analysis of the alternatives would be presented to the Council in April, 2004, and the pre-analysis and analysis would take place in the interim.

Stosh Anderson reminded everyone that we need to stay on the same schedule until the extension is approved.

John Gauvin asked if the 12-month period was what Jon Kurland really thought was adequate. Jon said yes, if the alternatives would be "locked down" at this meeting.

Progress Report

Presented by Cindy Hartmann

Alternatives to minimize the effects of fishing are still in progress. Phil Thorne and Ken have been working with the staff on enforcement issues in the GOA. Chapters 1 and 2 are drafted as well as a "cut and paste" version of Chapter 3. Pre-analysis studies need to be done, and these studies would take 6-9 months once the alternatives are finalized. The effects analysis (Chapter 4) cannot begin until the pre-analysis database work is done.

EFH would be accurately defined for each species that we have information on. Cindy Hartmann estimates that this is about 90 species, with a different description for each of six alternatives, and then different descriptions for each life stage as information is available.

Existing Mitigation Alternatives

Presented by Cathy Coon and John Olson

Status Quo no additional actions – no explanation needed.

Alternative 2 – Rockfish Only

The number of areas designated for protection has been reduced from thirteen to eleven to provide more effective enforcement boundaries. Boundaries are defined to the degree and minute.

Protected area boundaries for the GOA are the same for Alternatives 2 and 3. The difference is in what types of fishing are excluded.

Alternative 3 – All Groundfish

John Gauvin mentioned that the area closed to all groundfish under Alternative 3 should be changed to reflect exactly what the Committee recommended and the Council has approved (the maps reflect that the rockfish only areas are now included in the all groundfish alternative).

All areas were approved by Council at the last meeting with a request to work with the Coast Guard and NMFS on enforceability.

Alternative 4 for the Bering Sea – Prohibit Fishing Except for Designated Open Areas

The rotational closures under Alternative 4 have been drawn along lines of longitude for ease of mapping and enforcement.

Members and staff discussed the need for closure areas to include a variety of depths and to encompass the continental shelf break. There was also a request for bathymetry and fishing effort data to be included on the rotational closure map. The four-year rotational closure cycle length was discussed. Members decided that the rotational cycle length should be closely tied to biological information and the length of time needed to recover community structure. Adaptive management should be used to determine the optimum cycle length.

Alternative 5, Aleutian Islands (AI) - areas selected for closure are listed in the handout. The areas were selected from ADFG statistical areas.

Sub option for Alt. 5 for the AI (Alternative 5b) was developed from Oceana draft method presented to the Council on December 6, 2002. The purpose of the sub option was to close areas to bottom trawling that had high levels of corals and sponges and low CPUE.

John Olson discussed his work on this sub option to Alternative 5. John Olson discussed information provided for one management area. He looked at coral, sponge, and bryozoan bycatch in the AI for 5 km blocks. He looked at bycatch related to CPUE of catch. A ratio of these numbers was created. These ratios were plotted, and natural breaks were used to define categories. High coral catch were the areas of interest. John mapped the tons of catch and the trawl intensity from Rose and noted that there was little overlap of areas with high catch and areas of high coral and sponge bycatch.

He wanted to then set up areas that were open to fishing. Areas that have not been fished would be closed to fishing. When all of the trawl effort was shown as one color, it was not possible. He looked at number of trawls in each area over the past 11 years. He based this on number of "hits" in each category. He then tried to draw blocks over the areas of higher bottom trawl effort. To get square blocks, he had to include some areas in the open area that had not been fished, but also included some areas that had been fished in the closed areas.

John Olson stated that the option includes 100% observer coverage and 100% VMS (vessel monitoring system).

Phil Thorne stated that the Coast Guard will work with the Council on whatever boundaries are drawn. But, he provided information on what would be the easiest shapes to enforce. Many small areas are very difficult to enforce.

Alternative 6

John Olson discussed Alternative 6. The task was to close 20% of the fishable waters to all bottom tending gear based on habitat, structure, invertebrate concentrations, disturbance, and existing closures. Habitat information is limited.

About 20% of total fishable areas between 0 m to 1000 m was selected for closure. In the Bering Sea, the selection was based on substrate habitat. If the area was too large, staff used fishing intensity to cut the total area down. The area was divided into regions – west, central, and east within the GOA.

Ben Enticknap clarified that the fishing intensity data used to delineate this alternative was only trawling fishing effort data, and did not include fishing intensity for other bottom tending gears (longline and pot). Stosh Anderson asked for a definition of bottom tending gear. Bottom tending gear was defined at pots, long lines, bottom trawls, scallop fishing, but did not include jigging, for example.

Information on Draft Gear Definition

Presented by Cathy Coon

Cathy Coon read the gear definition hand out regarding sweeps, bobbins, and footropes.

Ben Enticknap did not see benefits to habitat from a three inch clearance over the sea floor. Others voiced similar concerns. Members discussed the effectiveness of these types of gear limitations. Members wanted monitoring to be applied if this action were to be implemented to evaluate recovery time effectiveness.

Ben Enticknap noted that originally the gear modification was intended for the BS and now it is for all three areas, BS, AI and GOA. He wanted to clarify if it was intended for all areas or just for the Bering Sea. John Gauvin agreed with Ben that the original discussion was just for the BS. John does not think that anyone in the AI is using unprotected footropes. In the BS, most people also use protected footropes, and that there would be little additional costs to implement. He would like this to stay in as part of the analysis.

Proposed Research Closure Areas

Presented by Cindy Hartmann

Cindy Hartmann presented Dr. Jeff Fujioka's *Draft EFH Research Closure Plan* dated January 24, 2003. This is an initial stab at research closures done by NMFS, Alaska Fisheries Science Center scientists. Methods for the selection of areas were described in a handout provided to the members.

The closures would be described as a Sub Option under Alternative 1, Status Quo. This would be an additional alternative sub option. The sub option was designed to look at fished areas and non-fished areas. The long-term goal of the research is to understand the long-term effects of fishing on habitat. There were questions about the effectiveness of the research closure areas and about the ability to compare data between the Bering Sea and the GOA based on the location of closures in areas that had been historically fished or not fished.

Cindy Hartmann stated that the proposed closures would be total closures to fishing, year-around. Glenn Reed wanted to know the total time period for the closures. The description at this point is several years or decades. The closure would not be time certain at this point. Cindy Hartmann stated that since EFH would be evaluated every 5 years, that these closures may also be evaluated on that time frame.

Stosh Anderson commented that, with respect to the other alternatives, a comparison of these closures with the other closures identified under other alternatives would be helpful. He noted that many of these closures would overlap with those in the other alternatives.

Public Testimony

Arni Thompson – Representing Alaska Crab Coalition (A.C.C.)

The ACC has registered an estimate of the "foot print" for the pot fishery in the BSAI. The estimate is that less than 1 square mile is currently affected. Even under increased production, he estimates that only 2 sq. mi. would be affected. The pot fishery runs for 21 days right now, and the cod pot fishery is a six week time period.

Under Alt. 6, crab production would be heavily affected. A large portion of the primary harvest area would be closed to fishing in Bristol Bay. If you close areas of heavy production, the duration of fisheries is extended and there will be more impacts on benthic habitat. In the Pribilofs, there are areas proposed for closure that represent high production areas for many types of crabs. The visual depiction of the closures is helpful. In the AI, there are also proposed closed areas that are high production areas for king crab. The proposed closure areas in 542 are high production areas for brown crab.

Gordon Blue asked if Arni had looked at the St. Matthews Area for blue king crab. Arni concurred that those proposed closed areas were high production areas for blue king crab. Gordon Blue listed several

species of crab that would be affected in the AI by the closures. He estimated the impact at 60% or more. Other areas were also discussed with reference to Bairdi crab production, east of the Pribilof Islands.

Ben Enticknap asked what recommendations Arni had for the alternatives – to have the crab fishery left out? Or to have certain fisheries targeted? Arni just wanted to underline the problems that these closures would cause for the industry. Arni expressed that he did not want to point fingers at specific fisheries.

Michelle Ridgway asked about the consideration of benefits to crab habitats from the closures, i.e. whether there would be long-term benefits to crab productivity. Arni stated that extensive areas in Bristol Bay are already closed for fishing, as well as areas in the Pribilofs. Arni's concern is that the groundfish and crab industry have been involved for a long time in developing negotiated protection areas. To separate open and closed areas, based on gear types, in this forum will exacerbate this process. Arni does not represent the Brown Crab Coalition, but there are some brown crabbers in the A.C.C.

Thorn Smith - Representing the North Pacific Longline Association (NPLA)

Thorn is concerned about affects on longliners from Alternative 6. He has not seen the Alternative 6 before and questions whether scoping was done on this alternative. He does not see that they have had the same opportunity as the trawlers to provide comments on the alternatives. He thinks there may be NEPA concerns on this.

Impacts on the longliners were presented by Thorn. Winter fishing occurs in Cod Alley and in the fall is forced to the north. The closures around Port Moller and in 516 would seriously affect the fishery. Other areas would be affected as well. There are 32 longliners in his group, and each needs 350 to 400 sq. miles to fish effectively. Fishable area can also be covered by ice pack or other fishing gears, which decreases the area available to longliners. Longliners are spread out and are unlikely to have large effects on benthic habitat. The longliners give up areas to the trawlers after January 20 each year when the trawlers force them out and to the north. Thus the northern closures would have the largest effect on the longliners, as they are pushed farther north by other fisheries.

He suggests selecting HAPC areas within the fished areas of longliners instead of EFH closures, due to the low level of impacts of longlining. He does not believe that longlining belongs in the 20% closure alternatives. Heather McCarty asked if he was requesting a separate alternative. Thorn just restated that he does not believe longliners belong in the 20% closure.

Geoff Shester – Representing Oceana

Geoff would like to thank NMFS for the work on Alternative 5b, the sub option. It looks good so far, but they will need time to comment. He noticed that this data intensive approach was not really in the other alternatives, and wanted to analyze the issues of coral and sponge bycatch. The approach used in AI 5b could also be applied to the BS and the GOA. Geoff showed pictures of what this would look like. Using the limited data available to Oceana, he showed examples that were analogous to John Olson's presentation. He showed areas of high fishing intensity, and high coral, byzooan and sponge bycatch and then identified mitigation areas that have high bycatch and low fishing effort. This approach is different than either reserves or rotations that are currently used in the other alternatives. Geoff feels that this approach could be applied in about a week for the BS and the GOA using a similar methodology.

Heather McCarty wanted to clarify what would be regulated, and Geoff stated that it would be trawling. The closures would be intended to prevent the expansion of fisheries to undisturbed areas. Geoff feels that this is a science-based approach and would be subject to change under adaptive management. The

sub-option would include the research to evaluate the effectiveness of the closures. Heather McCarty asked whether this research would be funded by Oceana as well as NMFS. Geoff said that Oceana has and will continue to work hard to seek funding for habitat research from funding sources.

Heather McCarty also asked if Oceana supported the one year time extension. Geoff said yes if it [the EIS/analysis] can be done right.

Ben Enticknap asked if trawl closures applied to bottom trawls as well as pelagic trawls? Geoff has been told that pelagic trawls impact the bottom 75% of the time fished, as per the Craig Rose paper that notes that in the BS the highest effects occurred from pelagic trawls. If the pelagic trawls hit the bottom, this approach should be applied for analysis to the pelagic trawl fishery. What type of bycatch? Geoff looked at coral and sponge bycatch, but would be interested in bycatch all habitat species, with a preference for longer-lived species.

Scott Smiley asked about how open areas would deal with regime shifts in the GOA. Geoff suggested looking at a longer-term data set for historical movements of fish. He also noted that, with the research component, that this alternative is meant to change over time and is relatively flexible.

John Gauvin wanted to compare Geoff's proposal to the committee's proposal. John discussed how the committee used the top third of the CPUE data over the last 30 or so years. He wondered whether in Geoff's model, with more data, that the open area would be larger or smaller. Geoff would like to use a data set in which all areas that are important to the fishery are identified. He just used what he had, which did not include pelagic trawl data, only bottom trawl data.

Jon Kurland mentioned the scheduling issue occurs with adding new alternatives. Jon Kurland asked Geoff what was involved in the one-week estimate. John Olson replied that he could put the data together in a week, but the time required to review the alternative by the Coast Guard, and NMFS was not included. Jon Kurland stated that there would be additional workload for NMFS with the expansion of this alternative. Geoff felt that on first glance, the work done to date on Alternative 5b appeared to meet the Council's intent.

Cindy Hartmann mentioned that the addition of new alternatives would mean alternatives would then probably not be finalized until after the April Council meeting necessitating a longer than one year extension. The analysis would also be complicated by additional alternatives. Geoff feels that the additional year would provide enough time if NMFS looks at all science-based reasonable alternatives..

Scott Smiley asked whether Alternative 6 went out to stakeholders for comment, with respect to Cindy's comment that any additional alternative would have to go out for stakeholder review. Cindy Hartmann stated that Alternative 6 was introduced in this public meeting and will have public review during this Council meeting.

Whit Sheard – Representing The Ocean Conservancy (TOC)

Whit feels that we are much closer to a good range of alternatives. He feels that the way the alternatives are presented does not encompass all scientific tools recommended by the NRC in all areas and that the repetition of approaches blurs the costs, benefits, and trade offs of different approaches. He felt that Alternative 5b is very different from Alternative 5 and should be a separate alternative. He is concerned that the closed area approach in the GOA, which is based upon 13 areas identified by fisherman as having minimal fishing effort is repeated as the only approach in the GOA throughout several alternatives. The

map of the Bering Sea has changed a bit from the original map that was approved. The lines are different in terms of area that is open.

Heather McCarty asked if there has been an adequate amount of time to consider the concept of a 20% closure in Alternative 6. Whit said yes, that he has been discussing this for over a year, and that, since the Draft EIS has not even been released, that they are well within the bounds of the process. He would welcome comments from the specific fisheries and communities. Heather asked whether Whit thinks that the 20% identified here is a good starting point, but that the 20% could change based on new scientific information. He said yes, because he wants to make sure that small fisheries and communities are not put out of business.

The HAPC process needs to be done by the April Council meeting according to meet the Council's due date. Whit feels that the EFH process must encompass the HAPC process because HAPC are the most essential fish habitat. He does not feel that example HAPCs are acceptable because the proposed action must be an actual action, not a theoretical review of example actions. Action should be specifically taken as part of EFH.

Whit commented on the timeline, that it was a negotiated schedule between the parties and not court imposed, as suggested by Jon Kurland. Whit wondered whether the Council will be allowed to mix and match measures, as in the Programmatic EIS. He wants the Council to be able to protect habitat based on the analysis and what scientists say the best approach to EFH is.

Kevin Kennedy – Representing the Tribal Government of St. Paul, and TDX, St. Paul

Kevin felt that EFH, especially under Alternative 6, has taken away all of the St George Halibut fishery, 85% of the St. Paul halibut fishery, all of the Korean Har Crab (*Erimacrus*) fishery and many other crab fisheries as well. They would likely have to relocate. He wants to know the coordinates of all of the areas of closures. Areas 4 and 5 would have a huge impact. They have lost the majority of their halibut production in Area 4c. In area 4d, they are still catching halibut, but there are few fish in area 4c. He thinks that the areas depicted are just like moving a movable fence that never gives the fishers a chance to access the fish under Alternative 6. He states that local village fisheries would be heavily affected.

John Gauvin asked if the east-west closure strips west of the Pribilofs would allow better access to the fishery. Kevin said yes. He would like to see a no-trawl zone for May, June, July and August in the area. Stosh Anderson asked about NE to SW lines, so that they would be perpendicular to the edge of the bay. Kevin said that those lines would be even better. Gordon Blue pointed out an area in the SW that is closed which would have significant effects on communities there.

Kevin Kennedy summarized that he would like to see for the Bering Sea: a no-drag zone that starts where it starts now and goes due west until you get to the canyons. This area would be closed to bottom trawling at a minimum and would be closed for June, July and August.

Terry Leitzell – Representing Icicle Seafoods

Terry is concerned about the analysis for Sub option 5b--that the areas closed under this alternative would be the ones that are most used by small boats in the Aleutians. Other current closures include some AFA trawlers, as well as other closures for northern rockfish. He also wants to know why 518 and 519 are included under AI and not in the BS analysis area.

Terry wants to see the fishing effort superimposed over the closures identified under sub option 5b to understand the productivity in the closure areas. He feels that receiving the charts today is too late to adequately comment on the alternative proposals. He feels that there needs to be more opportunity to comment on Alternative 6 and Sub option 5b for the public.

Michelle Ridgway wanted to know about projected expansion of the fleet that delivers to Icicle in Adak. Terry mentioned that they would be using both pot and trawls. Michelle Ridgway wondered if there was a projected increase in cod biomass that would support this expansion. Terry mentioned that they expect some new boats into the fishery, but did not have numbers on the biomass portions in the Aleutians .

John Gauvin asked for suggestions on how to approach the analysis and still get additional stakeholder input. Terry stated that the specificity of the areas is the issue, and that there needs to be input from the stakeholders who know and fish those areas.

Gordon Blue was looking at Alts 6 and 5b and does not see closures in areas set aside for use by small boats. Terry noted that small boats fish outside of the areas set aside for small boats, and that his plant in Adak also uses fish from larger boats.

Paul MacGregor – At-Sea Processors

Paul finds it's hard to comment on the new alternatives presented today (Alternatives 5b and 6) as the rationale for the sites selected are not provided and the people responsible for designing the alternatives are not present to describe the rationality used in designing the alternatives. The amount of production from the areas that would be closed would be very useful to him. He thinks that the fisherman have a lot of information that would be useful to the committee, but they did not have a chance to review the proposals. Bycatch information and the consequences of moving fisheries from one area to another are examples of information that would inform the process. For example, when the pollock industry moved operations to protect chum salmon, they encountered higher bycatch of rockfish. The bycatch limits for rockfish are very small, and it is easy to get into trouble as a result of even small increases in rockfish bycatch rates. Voluntary closures can be used to protect areas and prevent bycatch problems from occurring.

Heather McCarty asked for process recommendations. Paul noted that even with the extension, the approval of alternatives still would have to occur by the next meeting. Paul stated that this does not allow for stakeholder input into the process, if the alternatives have already been picked and the analysis has already begun. He would like to see more time devoted to the alternative development process.

End of Public Testimony.

John Lepore (NOAA General Counsel) – NEPA Process

The group is currently working on the scoping process for NEPA to collect information from the public and other agencies to define the scope of the analysis for the proposed action, the range of alternatives, and the effects of all of those alternatives. He says that the scoping of the analysis would end when the Draft EIS is released. He notes that they are under time constraints, and acknowledges the concerns of the public to comment on alternatives. He notes that the draft EIS would allow the public to comment on the alternatives and the analysis for those alternatives. The job now is to come up with an *adequate range of reasonable alternatives*. He does not believe that the committee is circumventing the process.

Jon Kurland noted that the transition from scoping to analysis is a moving one, but that the alternatives need to be clearly defined well before a draft environmental impact statement (DEIS) is released in order to do the analysis. He said that changing the alternatives would change the analysis, and that would take more time and effort. If there is consensus that additional time is needed, the extension could be lengthened beyond the 12 months that have been asked for. He does not want to draw out the process, but wants to have enough time to address the issues.

Stosh Anderson wanted to determine where the limit was for the period needed to define the alternatives. Jon Kurland said that the 12-month schedule is aggressive with the current range of alternatives – if additional alternatives are added, that time period would be longer. If Alternatives had been finalized in October 2002, the DEIS would have been out by Aug 2003. Stosh Anderson noted that, based on the previous schedule, 10 months from the finalization of Alternatives, the DEIS would be available.

Cindy Hartmann noted that the original schedule was put together without knowing what the alternatives were along with assumptions on when the alternatives would be finalized and ready for analysis. They took into consideration dates based on when the Council would be able to take action. The Council has since made it clear that a cost-benefit analysis needs to be done. This request can only be performed by a few key people looking at the available data sets. Relative to the number and complexity of the current range of mitigation alternatives and the Council's intent, the previous schedule was under scoped. The 12-month request is a minimum that would be needed to do an adequate quantitative analysis.

The role of Foster Wheeler Environmental was also discussed by members.

Baseline Analysis (pre Status Quo)

Presented by David Witherell

The baseline is defined as the status quo without any habitat protection measures. The baseline addresses the question: What has been the cost to get to where we are now as far as current habitat protection? This would help the public understand where we have come from in terms of habitat protection. These measures include gear restrictions, closures, and many other measures that have had a benefit to habitat. He suggests including this section under Chapter 2 as it is part of the existing conditions that provide some benefit to habitat, even as a secondary effect, such as limiting a fishery to pelagic gear or, incidental effect, such as a vessel moratorium. All previously adopted measures would be included in one table.

The baseline would provide a comparison point for all of the alternatives, including status quo. It would allow a relative comparison of the protection provided under EFH to all the habitat protection provided in the last 25 years. He does not feel that cost can accurately be captured, but perhaps amount of area protected in the past 25 years, as compared to that provided under each alternative.

Scott Smiley said that taking a stab at the economic effects could be done from numbers taken from the past. He states that this estimate would give a range of magnitude of the consequences that would be illuminating.

Dave would include in the table the cost of implementing the measures at the time of implementation, but the costs would not be additive. They would be used as a relative indicator.

Ben states that the baseline does not represent a real point in time. There was never a time that there were no protection measures. There were also actions that had negative impacts in history. He also wanted the

actions with negative effects on habitat, such as repealing the Bristol Bay Pot Sanctuary, to be included in the analysis.

EFH Committee RECOMMENDATIONS TO THE COUNCIL

Motion

John Gauvin moves to tell the Council that the Draft gear modification document summarizes the issue. The committee wants to clarify that the original intent of the idea was that it should only apply to the Bering Sea, and not to other areas, as it most suits the habitat of the Bering Sea. The committee would like to provide this as information to the Council. *Amendment* –The evaluation of gear modification practices should be included under a standard monitoring program with tangible effectiveness monitoring of the specific habitat impacts. The parameters for measuring effects would be reduced footprint and height off of the sea floor. *Motion Carries*

Motion

Change “Gear Definition” to “Gear Experiment” *Motion Fails*

Motion

John Gauvin moves that the staff write up of Alternative 5 be amended to remove the areas that the Council had previously designated as “rockfish only” from the groundfish prohibition. *Motion carries.*

Motion

Ben Enticknap moves to inform the Council that the area north of St. Matthews should be closed and not included as an open area for Alternatives 4 and 5. There was some uncertainty as to whether the map reflects the original EFH Committee motion. *Two abstentions. Motion carries*

Motion

Ben Enticknap moves that the cross sectional lines that divide the rotating open areas be realigned so that each encompasses the shelf break. The original intent of the divisions was to include the ecological diversity of the shelf break as well as a range of depths for fishing. *Amendment: Committee Designation: John Gauvin, Ben, and Heather are designated to work together on designing the lines. Cathy Coon will help as staff. Earl Krygier would like the information to be presented as informational to the Council. A draft would be presented to the committee. Motion Carries.*

Motion

John Gauvin recommends to the Council that they use a stakeholder process similar to the one used in Alternatives 4 and 5 to evaluate the staff’s work up of Alternatives 5b and 6. *Motion carries 8 to 1. One abstention.*

Motion

Heather McCarty moves that the committee voice their support to the Council for a NMFS request for a time extension for the development of the EFH EIS. *Motion Tabled Indefinitely.*

Motion

Gordon moves to table the previous motion indefinitely. *Motion Carries.*

Meeting adjourned at 3:46 pm.



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

C-H
EFA

January 24, 2003

MEMORANDUM FOR: William T. Hogarth, Ph.D.
Assistant Administrator for Fisheries

FROM: *For* James W. Balsiger *And J. Berg*
Administrator, Alaska Region

SUBJECT: Schedule Extension for the North Pacific Fishery Management Council's Essential Fish Habitat Environmental Impact Statement – DECISION MEMORANDUM

The Alaska Region has been working diligently with the North Pacific Fishery Management Council, the Council's Essential Fish Habitat (EFH) Committee, and a wide array of stakeholders to develop the Environmental Impact Statement (EIS) required by the AOC et al. v. Daley settlement agreement. The settlement agreement requires the agency to publish a Draft EIS by August 1, 2003. Our internal schedule called for the Council to finalize the alternatives for analysis at its October 2002 meeting. The Council did finalize the alternatives for identifying EFH and Habitat Areas of Particular Concern in October, but has continued to work on the alternatives for minimizing adverse effects of fishing on EFH. Although it has taken longer than expected to finalize the minimization alternatives, we are pleased that the Council is poised to approve a much broader range of action-specific alternatives than many participants originally envisioned. Unfortunately, the delay in finalizing those alternatives, combined with the broader and more complex array of alternatives, has led us to conclude that we need additional time to complete a comprehensive Draft EIS.

Based on the current range of alternatives, and assuming the Council finalizes those alternatives at next week's meeting, the Alaska Region needs a 12-month extension for the Draft EIS. As described on the attached proposed schedule, we would use that time to do quantitative spatial analyses, catch projections, and related analytical work to provide a clearer picture of the changes to the fisheries and the environment that would be anticipated under each alternative in the Draft EIS. If the existing schedule cannot be extended, we will complete a much more qualitative Draft EIS with correspondingly less detail. My staff has discussed our proposed extension in detail with staff in the Office of Habitat Conservation and General Counsel for Fisheries.



I request that you concur with our proposal to work through the Department of Justice to secure this 12-month extension for the Draft EIS. Because we envision developing any necessary FMP amendments concurrent with the EIS process, we will not need an extension of the existing schedule for implementing regulations. We would publish a Final EIS by June 1, 2005, a Record of Decision by August 13, 2005, and any implementing regulations by the existing deadline of August 13, 2006.

I concur. _____ Date _____

I do not concur. _____ Date _____

Attachment

cc: Rebecca Lent
Rollie Schmitten
Jack Dunnigan
John Hansel
Jon Kurland
Sue Salveson
Doug Demaster
John Lepore

EFH Draft EIS – Proposed Schedule (from January 2003 forward)

January-February 2003: Finalize Mitigation Alternatives

Baseline scenario, Alternatives 5B and 6, and research design

January-March 2003: Develop Chapter 3 (Affected Environment)

February-June 2003: Develop Maps & Text for EFH Designation Alternatives and HAPC Alternatives

Development and drafting

Review and critique by species experts

March-November 2003: Pre-Analysis Tasks

Data base and GIS queries for groundfish to determine fishery changes by alternative (6+ months)

Data base and GIS for scallop/crab/salmon to determine fishery changes by alternative (2+ months)

Stock assessment and prohibited species catch projections for all mitigation alternatives (2+ months)

TAC specifications for all mitigation alternatives (1+ months)

Spatial model for analyzing fishing effects on habitat (requires bycatch model and EFH by area first)

Develop Appendices:

Appendix A Documentation of the scoping process

Appendix B Evaluation of fishing activities that may adversely affect EFH

Appendix D Detailed maps and text descriptions of EFH by Alternative

Appendix E Detailed maps and text descriptions of HAPC by Alternative

Appendix G Habitat assessment reports

Appendix H Effects of non-fishing activities on EFH

Appendix I Analytical methods to evaluate the effects on target species

November 2003 - January 2004: Develop Chapter 4 (Environmental Consequences)

Biological and habitat effects of mitigation alternatives

Socioeconomic analysis, Regulatory Impact Review, Initial Regulatory Flexibility Analysis

Cumulative impact analysis

January-March 2004: Document preparation and editing

February 2004: Develop NMFS EFH recommendations

March 2004: Internal review of preliminary Draft EIS

April 2004: Council review of preliminary Draft EIS

April-May 2004: Revisions based on Council and NMFS comments

June 2004: Final clearance and approvals by Council, NMFS, NOAA

July 2004: Document printing

August 1, 2004: Publish Draft EIS

**PUBLIC TESTIMONY SIGN-UP SHEET FOR
AGENDA ITEM 2-4 EFH**

**PLEASE SIGN ON THE NEXT BLANK LINE.
LINES LEFT BLANK WILL BE DELETED.**

	NAME	AFFILIATION
1.		
2.		
3.	✓ Dave Gruber	Northwest Marketing Association
4.	✓ Marion = Philentorif	St George Fishermen's Assoc
5.	✓ Josh Sladek Nowlis	Alaska Oceans Network
6.	✓ Whit Sheard	The Ocean Conservancy
7.	✓ Geoff Shester/Jim Ayers	Oceana
8.	✓ CRAIG MERRILLAN	Piedmont Fisheries
9.	✓ ARNI THOMPSON	ACC
10.	✓ Bob Storrs	Unalaska Native Fishermen's Assoc.
11.	✓ [unclear]	[unclear]
12.	✓ THORN SMITH	NPCA
13.	✓ BRENT PAINE	UCB
14.	✓ Linda Rozak	Kozak + Assoc.
15.	✓ [unclear]	CBSIFA
16.	✓ Donating Children	Amcc
17.	✓ Julie [unclear]	REDB
18.	✓ Bob Alvelson	FVDA
19.	✓ Simon Swetzel Jr	City of ST. PAUL AK.
20.	✓ Paul Mac Gryn	At Sea Poveran
21.	✓ Russell Pritchett	Independent Cod Transfers Assoc.
22.	✓ Glenn Reed	PSFA
23.	✓ Chuck McAllum	Chumlike Scientists Assoc
24.	✓ Jon Casey	ACEG
25.	✓ GARY FARRER	FU TRAILBLAZER
	✓ JOHN GAUVIN	GROUND FISH FORUM

Dave
Fraser

C-4, Essential Fish Habitat

Comments of the Aleutian Cod Marketing Association

Re: Alternative 5b

The Aleutian Cod Marketing Associations is a group of trawl CV's who fish for cod in the Aleutian Islands. We are concerned with the brevity of the period allowed to examine Alternatives 5b, however, we understand the legal deadline pressures facing the Council. We urge the Council to move ahead with the full range of Alternatives, and also to resist adding any further new options to the proposal. We are not advocating a new stakeholder process on Alternatives 5b at this time, as the cod and mackerel fleets most effected by 5b will be fishing between now and the April meeting and would be unable to participate.

Alt. 5b was fleshed out by staff based on a set of general concepts proposed by Oceana and was only made available to the public in a mapped form in the last week, thus it has had minimal stakeholder review. ACMA is concerned with a number of specifics within Alt. 5b. We are also concerned with the implications of choices that will have to be made by the analysts in implementing the general concepts in the Oceana proposal. Staff has made tremendous efforts to develop a methodology to translate the general concepts into a map-able alternative. However, we believe there is a need to 'fine tune' the analytical approach.

Elements of the Oceana Proposal

- A. Closed Areas based on minimal fishing
- B. Open Areas based on significant levels of fishing
- C. Additional closed areas based on past relatively high coral and sponge catches ("doubly closed" areas)
- D. Caps on future coral and sponge bycatch in the open areas
- E. TAC reductions proportionate to closed area catch
- F. Enforcement based on increased observer coverage and VMS
- G. Research to identify possible additional open areas

ACMA concerns are as follows:

Element B - Area Definition:

The initial attempts by staff to map the open areas have begun using a 5 km grid. ACMA agrees that this proposal begins reflects the scale of micro habitats in the AI. However, it will be difficult to translate a set of square 5 km squares to something that can be evaluated on a nautical chart.

Therefore we recommend the use of a Lat/Lon grid based on 3 minutes of Latitude by 6 minutes of Longitude. This will align with, and sub-divide existing 1/2 x 1 degree ADF&G stat areas in the geo-reference system familiar to the fishing fleets and is roughly equivalent to a 5 km block.

Element C - "Relatively" High:

As pointed out in the staff discussion the choice of classification systems has a major impact on the definition of "relatively high," and that the threshold is a subjective choice.

ACMA agrees with the staff discussion that the use of "quantiles" for classification in Oceana's presentations is inappropriate. Additionally, the threshold for the number of "doubly closed" blocks should be a function of the analysis, which should be done in a manner to rank the "bang for the buck" of closing individual blocks.

Preliminary mapping by staff has expanded the closure of a relatively high 5 km block to a group of 4 adjacent 5 km blocks. The tradeoff between enforcement ease and additional lost fishing ground should be analyzed, and the Council should reserve the decision on the appropriate size of "doubly closed" blocks until after such analysis

Element D - Coral and sponge caps:

ACMA does not support the inclusion of this element. It should either be removed now, or the Council should retain the ability to not include this element at the time of final action.

Element E - TAC reductions:

ACMA does not support the inclusion of this element. It should be removed now and replaced with an effort limitation restriction based on past participation.

The BSAI cod TAC is a common TAC. Thus reducing the overall TAC proportionate to area closures in the AI would do nothing to limit harvests in the AI. Effort in the AI cod fishery has expanded dramatically in recent years and continues to grow. If effort continues to increase, grounds crowding will be acute given the restricted open areas available under 5b and will likely push boats into the marginal portions of the open areas where coral and sponge encounters are more likely.

Element F - Enforcement:

Enforcement will clearly be a challenging aspect of this alternative given the scale of area definitions. VMS only updates about every 20 minutes and does not provide sufficient detail to be used for this purpose. The analysis should consider an onboard integrated electronic logbook and plotting program as a component of the enforcement program.

Element G - Research:

ACMA supports research as a necessary element of all alternatives that must be incorporated prior to adoption.

Other:

The analysis should consider the amount of area qualifying for "open area" status under that Oceana proposal that is currently closed due to SSL protective measures.

Conclusion:

Alternative 5b should be finalized at this meeting with the changes described above.

* pelagic trawls may be used in closed areas
but only in off bottom mode



3 February 2003

RE: Mitigating the impacts of fishing on Essential Fish Habitat (EFH)

Dear Chairman Benton and Other Members of the North Pacific Council:

I want to commend the Council on leading the nation in addressing the impacts of fishing on Essential Fish Habitat (EFH). I believe you are focusing on the impacts of greatest importance, considering a broad range of alternatives, and have welcomed the input of diverse interested parties. I do have some suggestions to facilitate moving forward on this matter. My focus is integrating scientific analysis into the EFH mitigation process.

On a most basic level, I recommend a six step process for integrating scientific analysis and concerns of management agencies and the broader public. In it, the Council would:

1. State goals and objectives.
2. Obtain scientific guidance (on significant impacts, on tools and general level needed).
3. Facilitate societal negotiations (detailed use of tools in the form of alternatives).
4. Solicit scientific review of alternatives based on objectives.
5. Choose a preferred alternative.
6. Monitor success and conduct adaptive management.

Thus far, you and your advisory bodies have made some important progress. However, I do believe a couple of key steps have been overlooked. In particular, while you have clearly stated broad goals for EFH mitigation, you have not associated specific objectives with alternatives you are now considering. My first recommendation is that you agree upon and state clearly at least one specific objective for each EFH mitigation alternative. In some cases, alternatives may differ only in the severity of new management but share the same objective.

To address EFH mitigation, you and your advisors have examined three basic techniques: limiting bottom trawling to its current range, rotational closures, and more permanent closures. These all focus on closed area management as a means of protecting bottom habitat. I encourage you to examine a broader range of potential EFH impacts in your analysis—for example the value of forage prey species to ecosystems—as well as the full range of tools available to protect bottom habitat from fishing. The National Research Council (2002) identified three such tools: closures, gear modifications, and effort limitations. These tools should be considered as compliments to the alternatives you have devised, but the degree to which they play a role under current management practices should also be addressed.

Of the tools you are considering, each has strengths and weaknesses. Limiting bottom trawling to its current range could be effective at protecting the most pristine habitat but also might be excessively blunt. It also might focus protection on areas that are not vulnerable at the expense of areas that are. Rotational closures provide a way for the fishing industry and coastal communities to directly benefit from the buildup of resource. However, they are less likely to protect habitat features, unless those features regenerate quickly (i.e., sand riffles in a high energy environment) or the rotation allows for a long "fallow" period (I suspect we would need decades, not years). Finally, more permanent closures are more likely to protect habitat, but they can actually backfire unless the closures protect the most vulnerable habitats. This tool also requires strong buy-in by fishing groups, highly effective enforcement, or both. I encourage you to discuss the strengths and weaknesses of these tools with your scientific advisors. Their analysis will be facilitated if you follow my first recommendation and specify objectives for each alternative.

Finally, since you are blazing a new trail here, I encourage you to devise a means of measuring your success. While I realize there has been some progress on this matter, it still has rough edges. Designing a research and monitoring program will be greatly facilitated if you state clear and specific objectives. These can then serve as the focus of scientific efforts, which should also be statistically sound.

To summarize my three recommendations, they are:

1. Agree upon and state clearly at least one specific objective for each EFH mitigation alternative. Consider using the boilerplate: "Select management tools to maximize protection of _____ habitat from the effects of _____, while minimizing the cost to _____."
2. Direct your scientific advisors to analyze current alternatives and suggest modifications, as necessary and practicable, based on the objectives you selected.
3. Further direct your scientific advisors to design a research and monitoring program tailored to measure success. The program should be statistically sound and focused on the specific objectives you selected.

I hope these comments are helpful in integrating scientific advice into your EFH mitigation process. Thank you for the opportunity to provide my perspective. I look forward to working with you on this and other issues in the future.

Sincerely,



Joshua Sladek Nowlis, Ph.D.
Science Advisor

Joshua Sladek Nowlis, Ph.D.
Science Advisor

Alaska Oceans Network
406 G. Street
Anchorage, AK 99501



SPECIALIZATION: Broad training in applied marine biology and fishery science, especially: methods to address uncertainty in fishery management systems; the costs, benefits, and design of marine reserves and other spatial management techniques; and methods for summarizing and communicating scientific ideas to general audiences.

EDUCATION

Ph.D., Ecology and Evolutionary Biology	Cornell University	1994
A.B., Biology	Brown University	1988

SELECTED JOB HISTORY

Science Advisor, Alaska Oceans Network	Anchorage, AK/Berkeley, CA	2002-present
Senior Scientist, The Ocean Conservancy	San Francisco, CA	1998-2002
Research Associate, National Research Council	Woods Hole, MA (NMFS Lab)	1997-98
Research Asst. Professor, Univ. of the Virgin Islands	St. Thomas, VI	1994-97
Scientific Policy Advisor, Congress. Research Service	Washington, DC	1992-93

PEER-REVIEWED PUBLICATIONS

- Sladek Nowlis, J. In review. Performance indices to facilitate informed, value-driven decision making in fishery management. *Bulletin of Marine Science*.
- Sladek Nowlis, J, AM Friedlander. In review. Marine reserve design and function for fisheries management. In *Marine Conservation Biology: The Science of Maintaining the Sea's Biodiversity* (EA Norse, LB Crowder, eds.). Island Press.
- Friedlander, A, J Sladek Nowlis, JA Sanchez, R Appeldoorn, P Usseglio, C McCormick, S Bejarano, A Mitchell-Chui. In review. Designing effective marine protected areas in Old Providence and Santa Catalina Islands, San Andrés Archipelago, Colombia using biological and sociological information. *Conservation Biology*.
- Sladek Nowlis, J, B Bollermann. 2002. Methods for increasing the likelihood of restoring and maintaining productive fisheries. *Bulletin of Marine Science* 70(2): 715-731.
- Appeldoorn, RS, A Friedlander, J Sladek Nowlis, P Usseglio. In press. Habitat connectivity on the insular platform of Old Providence-Santa Catalina, Colombia: Mechanisms, limits and ecological consequences relevant to marine reserve design. *Gulf and Caribbean Research Institute*.
- Sladek Nowlis, J. 2000. Short- and long-term effects of fishery management tools on depleted populations. *Bulletin of Marine Science* 66(3): 651-662.
- Sladek Nowlis, J, CM Roberts. 1999. Fisheries benefits and optimal design of marine reserves. *Fishery Bulletin* 97: 604-616.
- Sladek Nowlis, J. 1999. Modeling marine reserves. Pp. 8-15 in *Strategies for Developing and Applying Marine Protected Area Science in Puget Sound/Georgia Basin* (L Scinto, ed.). Puget Sound Water Quality Authority, Olympia, WA, for the Puget Sound/Georgia Basin International Task Force.

- Sladek Nowlis, J, MM Yoklavich. 1998. Design criteria for rockfish harvest refugia from models of fish transport. Pp. 32-40 in *Marine Harvest Refugia for West Coast Rockfish: A Workshop* (MM Yoklavich, ed.). NOAA Technical Memorandum, NOAA-TM-NMFS-SWFSC-255. U.S. Department of Commerce, Pacific Grove, CA.
- Sladek Nowlis, J, CM Roberts, AH Smith, E Siirila. 1997. Human-enhanced impacts of a tropical storm on nearshore coral reefs. *Ambio* 26(8): 515-521.
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- Sladek Nowlis, J. 1997. Lessons for reserve design from models of adult and larval transport. P. 21 in *The Design and Monitoring of Marine Reserves* (TJ Pitcher, ed.). Fisheries Centre Research Reports 5(1). The Fisheries Centre, University of British Columbia, Vancouver.
- Sladek Nowlis, J, CM Roberts. 1995. Quantitative and qualitative predictions of optimal fishery reserve design. P. B-12 in *Review of the Use of Marine Fishery Reserves in the U.S. Southeastern Atlantic* (by C Roberts, WJ Ballantine, CD Buxton, P Dayton, LB Crowder, W Milon, MK Orbach, D Pauly, J Trexler, CJ Walters). NOAA Technical Memorandum, NMFS-SEFSC-376. U.S. Department of Commerce, Miami, FL.
- Nowlis, JP. 1994. The causes and consequences of host preferences in marine gastropods. Dissertation, Cornell University, Ithaca, NY.
- Nowlis, JP. 1993. Mate- and oviposition-influenced host preferences in the coral-feeding snail, *Cyphoma gibbosum*. *Ecology* 74(7): 1959-1969.

OTHER SCIENTIFIC HIGHLIGHTS

- Gave over 25 invited presentations to scientific and policy audiences.
- Awarded over 20 competitive research grants and fellowships.

COMMITTEES AND OTHER PUBLIC SERVICE

- Member**, Ecosystem & Habitat Advisory Panel, Western Pacific Regional Fishery Management Council, 1999-2001.
- Member**, Groundfish Advisory Sub-Panel, Pacific Fisheries Management Council, 1999-2000.
- Participant**, Marine Conservation Biology Institute Scientific Workshop, Establishing a National System of Marine Protected Areas in the United States, 2000.
- Participant**, Marine Conservation Biology Institute Scientific Review Team, Conserving an Imperiled Fish: The Barndoor Skate, 1999.
- Member**, Pacific Offshore Cetacean Take Reduction Team, 1998-99.
- Member**, Technical Advisory Board, Sustainable Seas Expedition, 1998-99.
- Member**, Review Panel for the Higher Trophic Levels Ecosystem Modeling Initiative of the Florida Bay Program, 1997.
- Member**, St. Thomas/St. John Marine Fisheries Advisory Board, 1996-97.
- Member**, Advisory Board for the Conservation Data Center of the Virgin Islands, 1995-97.

C-4
Gerry Merriam

EFH: Mitigation Measures

The burden of conservation should be proportional to the impacts. Mitigation measures are to reduce the adverse effects of fishing. These measures should be proportional to the effects of fishing. Accordingly, mitigation measures should be apportioned by gear type and/or fishery proportional to the effects of that gear type or fishery on the benthic habitat.

Add to the end of the problem statement, "*These mitigating measures are intended to be proportional to the impacts of the fisheries, by fishery or gear type.*"


Alternative 6: Closure of 221 million sq. km. to Bottom Tending Gear

This is not a reasonable alternative.

- No rationale is evident as to what type of impacts this alternative is designed to mitigate.
- No rationale is provided as to the magnitude of impacts this alternative is designed to mitigate.
- No rationale is given for which individual fishery impacts or gear type impacts this alternative is intending to mitigate.
- No rationale is provided for a 20% closure. The figure appears to be arrived at arbitrarily. It is unclear as to what it takes into account. The 20% closure is at best a large untested experiment. The 20% is based on a theory that is as yet untested over time periods, a over variety of habitats, or over magnitudes of area.
- This alternative is a complete closure to all bottom tending gear. The draft Rose Analysis indicates that fixed gear accounted for three percent of the impacts on the benthic habitat. This alternative is disproportionately and highly punitive to the fixed gear sector.
- This is a marine reserve proposal. There is no mandate in EFH for complete closures to fishing. Closures should be site specific to achieve a specific goal. This is more suited to the existing HAPC process.
- The joint NPFMC/BOF are currently engaged in establishing a MPA process. A federal MPA advisory committee has just been appointed two weeks ago. Existing MPAs have taken years to arrive at through extensive stakeholder participation.
- It is not evident that MPAs are more effective than proper size, sex, and season management. MPAs may be more appropriate in regions that have little history of fisheries management, effort limitation, gear restrictions, stock assessment, monitoring and enforcement.
- MPAs are not as effective for migratory species.
- There is considerably less information on MPAs in cold water systems than on tropical reef systems.
- There is no information on MPAs of the size proposed in this alternative.
- No matter how the lines are adjusted, Alaskan coastal communities will be severely impacted.

Alaska Crab Coalition

3901 Leary Way N.W. Ste. 6
Seattle, WA 98107
206 547 7560
Fax 206 547 0130
acc-crabak@earthlink.net

DATE: February 1, 2003
TO: David Benton, Chairman
NPFMC
FROM: Arni Thomson, Executive Director
Alaska Crab Coalition 
RE: Comments on Agenda Item C-4, Essential Fish Habitat
And Potential Closure Areas in Alternative 6

- ACC has filed comments for the administrative record on the estimated footprint area for pot gear in the directed crab and Pacific cod fisheries in the Bering Sea/Aleutian Islands areas (October 31, 2002, EFH Committee). The ACC estimates that for the combined areas, the fishing gear footprint is about one square nautical mile per year.
- The ACC and others in the crab industry are alarmed at the January 26th, Alternative #6 schedule of draft proposed closure areas to protect EFH (released at the EFH committee meeting). The areas proposed for closure will disproportionately affect directed crab fisheries in the BSAI. In addition, industry estimates that the proposed closures in Bristol Bay, for the Pribilof and St. Matthew Islands and the areas north and west of these islands and the Sequam Pass and Petrel Bank (and adjacent islands) in the Aleutian Islands, will likely result in dramatically reduced GHs and in some cases, out-and-out closures of some fisheries.
- Below are estimates of the impacts of Alternative #6 area closures to crab fishery GHs based on personal communications with experienced fishermen and management officials:

Bristol Bay red king crab	50%
Bering Sea snow crab (recent years)	33%
Eastern Aleutian brown king crab	30%
Petrel Bank red king crab	100%
Petrel Bank brown king crab	10%

In addition, the proposed closures around the Pribilof Islands will likely foreclose the reopening of the hair crab fishery and the red and blue king crab fisheries which are currently closed for rebuilding. The same is true of the St. Matthew Islands blue king crab fishery.

- The NPFMC SSC in its review of the EFH alternatives raises questions about the lack of goals and the objectives in the EFH problem statement and the rationale for large sweeping closures in the BSAI and GOA areas.
- The net result of such broad sweeping closures will be to create widespread financial disruption to the already depressed crab industry and to also create a disincentive for the industry to continue to support sustainable resource management goals and measures.

*Lon Clarke &
Frank Kelty*

ALYESKA SEAFOODS
ALASKA DRAGGERS
ASSOC.
ALASKA GROUND FISH
DATA BANK
ALASKA PACIFIC
SEAFOODS
ALEUTIAN ISLANDS
BROWN CRAB
COALITION
ALEUTIAN PRIBILOF
ISLAND COMMUNITY
DEVELOPMENT ASSOC.
AKUTAN, ATKA, FALSE PASS, NELSON
LAGOON, NIKOLSKI, ST. GEORGE
MID-WATER TRAWLERS
COOPERATIVE
AT-SEA PROCESSORS
ASSOC.
BRISTOL BAY
ECONOMIC
DEVELOPMENT CORP.
ALEKNAGIK, CLARK'S POINT,
DILLINGHAM, EGEKIK, ERUK, ERWOK,
KING SALMON, LEVELOCK, MANDROTKA,
NAKNEK, PILOT POINT, PORT HEIDEN,
PORTAGE CREEK, SOUTH NAKNEK,
TOGIAK, TWIN HILLS, UGASHIK
CENTRAL BERING SEA
FISHERMEN'S ASSOC.
SAINT PAUL
CITY OF UNALASKA
COASTAL VILLAGES
REGION FUND
CHEFORNAK, CHEVAK, EEK, GOODNEWS
BAY, HODOPEL BAY, KOKNIK,
KONGIGANAK, KWIGLLINGOK,
MESTERLIK, NAPAQAK, NAPAQAK,
NIGHTMUTE, OSCARVILLE,
TUNNADAK, SCAMMON BAY,
Y. TUNTUTULAK, TUNUNAK
GROUNDFISH FORUM
HIGH SEAS CATCHERS
COOPERATIVE
ICICLE SEAFOODS
ALASKA LEADER
FISHERIES
NORTH PACIFIC
FISHERIES RESEARCH
FOUNDATION
NORTH PACIFIC
LONGLINE
ASSOCIATION
NORTH PACIFIC
SCALLOP
COOPERATIVE
NORTON SOUND
ECONOMIC
DEVELOPMENT CORP.
BREVIG MISSION, DIOMEDE, ELIM,
GAMBELL, GOLOVIN, KOYUK, NOME,
SAINT MICHAEL, SAVONGA,
SHAKTOOLIK, STEEBERS, TELLER,
UNALAKLEET, WALES, WHITE MOUNTAIN
PROWLER FISHERIES
TRIDENT SEAFOODS
CORP.
SEAFOOD COLD
STORAGE ASSOC.
SOUTHWEST ALASKA
MUNICIPAL
CONFERENCE
UNITED CATCHER
BOATS
AKUTAN CATCHER VESSEL ASSOC.
ARCTIC ENTERPRISE ASSOC.
NORTHERN VICTOR FLEET
PETER PAN FLEET COOPERATIVE
UNALASKA COOP
UNALASKA FLEET COOPERATIVE
WESTERN FLEET COOPERATIVE
MAGNUSON-STEVENSON FISH GROUP
F. J. JENSEN
PV. HOENIK
PV. GOLLIER ALASKA
WESTERN ALASKA
FISHERIES, INC.
YUKON DELTA
FISHERIES
DEVELOPMENT ASSOC.
ALAKANUK, EMMODAK, GRAYLING,
KOTLIK, MOUNTAIN VILLAGE, NUNAM
IOUA

C-4, Essential Fish Habitat

Mr. David Benton
Chairman
North Pacific Fishery Management Council
605 West 4th Ave., Suite 306
Anchorage, AK 99501

February 2, 2003

Dear Chairman Benton,

As the North Pacific Fishery Management Council (Council) continues to grapple with the details of the court-ordered Environmental Impact Statement (EIS) regarding Essential Fish Habitat (EFH), the Marine Conservation Alliance (MCA) offers the following suggestions.

We feel we must preface these remarks by noting our continuing concern over the Council and the National Marine Fisheries Service (NMFS) prescribing habitat mitigation measures before identifying any adverse effects on the productivity of FMP species caused by fishing. We understand the legal requirements facing you, but believe administering a cure before identifying the malady, if any, is never an appropriate method of modern, scientific resource management.

1. Move ahead now. The MCA shares the widespread disappointment in the brevity of the period allowed to examine Alternatives 5b and 6. Specifically, we echo the Science and Statistical Committee's frustration with the fast pace of developing specific EFH alternatives without clear statements of goals, objectives, and overall strategy for fishery management policy development. We understand the desire by some parties to secure additional time to analyze these options in greater detail. However, we remain mindful of the legal deadline pressures facing us all, and seek to expedite a workable framework. We urge the Council to move ahead with the full range of Alternatives, and also to resist adding any further options to the proposal.

NMFS staff has stated an extension of at least one year is necessary to produce a quantitative analysis of the present Alternatives that will likely pass muster in court. While the MCA does not specifically support or oppose the Court extending the deadline to permit development of a more thorough EIS, we are not in favor of negotiations with plaintiffs that compromise a transparent public process. If NMFS does pursue negotiations with the plaintiffs, we believe the Council should be represented in that process so as not to circumvent the public participation requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). In any event, we oppose any further addition of new Alternatives or extension of the stakeholder process.

2. Don't Launch a New Stakeholder Process. We understand some parties advocate a new stakeholder process on Alternatives 5b and 6, to be completed before the April Council meeting. While the MCA remains a proponent of stakeholder processes as important and useful in nearly any circumstance, we believe it is unrealistic to believe a thorough process could be designed, deployed, and incorporated in such a short time. We suggest the Council move ahead without launching a new stakeholder process. Using the information now available and the testimony offered over the last eighteen months, the Council has indeed benefited from considerable stakeholder opinion and applicable suggestions. Any additional concerns will be better revealed and reviewed during the Draft EIS process.

3. Maintain the Existing Range of Alternatives. Earlier, NMFS Director Dr. William Hogarth advised, "If there is evidence that a fishing practice is having an identifiable adverse effect on EFH, and/or if the available information is unclear as to whether there may be an adverse impact that is both more than minimal and not temporary in nature, for NEPA [National Environmental Policy Act] purposes the analysis of alternatives needs to consider explicitly a range of management measures for minimizing potential adverse effects, and the practicability and consequences of adopting those measures." We believe the range of measures represented by Alternatives 1 – 6 will satisfy NEPA, and ask the Council to neither remove existing Alternatives, nor add Alternatives, nor make major amendments to existing Alternatives.

4. Match Mitigation Measures With Demonstrable Impacts. You will recall from our earlier testimony that the MCA seeks assurance the EIS will contain the information allowing the Council and NMFS to make, at some point in the future, a rational, sequential determination on 1) whether fishing has caused essential habitat degradation that has adversely impacted the productivity of Fishery Management Plan (FMP) species and 2) whether the proposed measures properly mitigate the problem.

We remain convinced such determinations must be based on the best scientific evidence available, and any proposed mitigation measures should be evaluated to determine: 1) the level of effective mitigation they will provide in each specific and unique circumstance; 2) the benefits that will accrue to managed species; and 3) the financial burden they will impose. The EIS should include specific decision-making tools which will allow the Council to make a decision in compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and NEPA.

To accomplish these goals in a way that the Council, NMFS, and the public can best evaluate the proposed measures, we asked last fall that the EIS include ten essential elements. We are heartened that our suggestions have come to enjoy widespread agreement and acceptance, and feel it is worthwhile to repeat them here. The EIS should include:

- 1) Clarification that the task of EFH mitigation measures is to reduce habitat degradation that has the high probability of or has actually negatively affected the productivity of FMP species;
- 2) An assessment of the productivity of the FMP species using Stock Assessment and Fishery Evaluation (SAFE) documents and other available information;
- 3) Information or evidence linking any adverse effects on the productivity of FMP species to fishing;
- 4) Evidence that proposed measures will properly mitigate specific adverse impacts to FMP species;

- 5) An assessment of the level of certainty of information used to determine adverse impacts, linkages to fishing, and effectiveness of proposed measures to mitigate specific adverse effects;
- 6) An evaluation of the costs and benefits of proposed mitigation measures to determine the "practicability and consequences" of adopting proposed alternatives, including an assessment of unintended consequences, such as increased bycatch and bycatch-triggered closures;
- 7) An assessment of the habitat protection benefits of measures already installed to protect FMP species, including effort reduction as embodied in the American Fisheries Act, the Bering Sea Crab Protection Zones, Pribilof Islands Habitat Conservation Area, salmon and herring savings areas, walrus and Steller sea lion closures, and similar closures in the Gulf of Alaska (GOA), including the Eastern GOA trawl closure, the Cape Edgecumbe Pinnacles Reserve, and any other closed areas that restrict impact on local habitat;
- 8) Factoring in the two million metric ton cap in the Bering Sea/Aleutian Islands as an existing mitigation measure, since some proposed alternatives recommend that Total Allowable Catch (TAC) reductions should accompany area closures to further protect habitat by reducing fishing effort;
- 9) A table quantifiably comparing the proposed mitigation measures, any adverse impacts to FMP species, certainty of scientific information used to determine adverse impact, projected effectiveness and cost of measures to coastal communities and industry participants, and projected unintended consequences;
- 10) An evaluation and comparison of each alternative to the requirements of the National Standards.

We thank the Council for directing staff to include the above described evaluation tools in the EIS to insure compliance with MSA and NEPA. As we did last fall, we strongly urge the Council to send out the EFH, Habitat Areas of Particular Concern (HAPC), and mitigation measure alternatives for analysis at this meeting, to avoid increased vulnerability to continued EFH litigation by failure to meet settlement deadlines.

5. Support the Baseline Analysis. The MCA supports the Council's efforts to evaluate the habitat protection impacts of actions already taken, including gear restrictions, area closures, harvest limits, effort limitation, rationalization programs, and other measures. This baseline would provide a useful starting point from which to compare all alternatives, allowing more complete analysis of proposed mitigation measures.

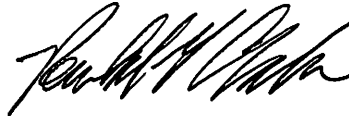
6. Support Expanded Research. The MCA is convinced scientific research is vital to the success of any mitigation scheme. A well-considered, appropriately-funded research program is a necessary element to complete such a scheme. Consequently, we are troubled by the apparent relegation of research to the uncertain world of trailing amendments. In 1993, after large areas were made off-limits to protect Steller sea lions, promised trailing amendments were to have created a research and monitoring plan to help determine the efficacy of such closures. The trailing amendments never materialized, the research program never got off the ground, and we still don't know much about the efficacy of these drastic measures.

We not only recommend the Council embed the concept of a research program in each Alternative, but strongly urge the Council to follow the suggestion of the Science and Statistical Committee and the Advisory Panel to take all possible measures to ensure research and funding for research is included, preferably, in each Alternative, but certainly when the Preferred Alternative is selected, to be implemented before any final mitigation plan is enacted. However, the present

research plan is more a mechanism to simply create Marine Protected Areas, rather than a balanced, relevant research design, reflecting an appropriate mix of scientifically valid test parameters. A suitable research plan can only be developed through a thorough public process. We are encouraged by NMFS staff's efforts to clearly describe the objectives of each Alternative, and believe these statements will help identify future research objectives.

Thank you for considering our views. We stand ready to assist you in any way.

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald G. Clarke". The signature is fluid and cursive, with the first name being the most prominent.

Ronald G. Clarke
Executive Director

~~CR116~~
 Thorn
 Smith
 C-4

Results of the effects of fishing analysis using alternative parameters

In August of 2002, a draft analysis of the effects of fishing gear on Alaska benthic communities was produced to help the NPFMC and it's EFH Committee in their development of EFH policy and the associated environmental impact statement (EIS). Lacking established methods and much of the data needed in considering this issue, the draft analysis was based on a novel, as yet unreviewed, model for measuring fishing gear effects and input data that ranges from speculative and indirect to well established. A major purpose of the draft analysis was to highlight the quality, or lack thereof, of needed information, both to describe sources of uncertainty and to guide future research.

As had been hoped, review of the parameters selected for the draft analysis by stakeholders resulted in the identification of some omissions or alternative sources of parameter estimates. In addition, other parameters were selected by authors for comparison. The following estimates were identified and included in analysis runs. The following compares the results of those runs with those from the original analysis. In addition to providing the alternative results, these runs also show how the model is sensitive to changes in its parameters.

Coral in the Aleutians

The most widely recognized omission was that neither the bioshelter or substrate shelter parameters reflected the likely combination of sensitivity and recovery for the hard corals, particularly in the Aleutian regions. A value on 27 % sensitivity was obtained from Kreiger (2001), which described the effects of a single trawl pass on red tree coral (*Primnoa*) in the Gulf of Alaska. The value was based on estimated reductions in the volume of *Primnoa* colonies in the path of the footrope. This value was applied to the entire width of the trawl, even though the study found no affected colonies in the areas covered by the trawl's bridles. A recovery time of 200 years was used for effects on corals. The analysis only included the hard bottom habitats as coral requires hard substrates to grow on.

The results estimate a much greater reduction of coral (22%) than for other bioshelter or substrate shelter (Table 1). These effects were distributed among the four bottom trawl fisheries, with the cod fishery having the largest effect shallower than 200 m and a relatively equal distribution in the deeper habitat.

Table 1

Aleutian coral with sensitivity = 27% and recovery = 200 years						
(bioshelter 30%, 5 years and SubstShelter = 2%, 100 years)						
Coral	0-200m			200-500m		
	Bioshelter	SubsShelter	Coral	Bioshelter	SubsShelter	Coral
CodTr	0.9	1.7	9.9	0.6	1.1	4.5
NrckTr	0.4	0.6	5.1	0.8	1.5	6.5
AtkTr	0.4	0.7	4.4	0.6	1.0	6.4
PopTr	0.2	0.3	2.9	0.5	0.8	4.1
Total	1.9	3.3	22.3	2.5	4.4	21.6

COD LL

0.16

0.06



Alaska Marine Conservation Council

Box 101145, Anchorage Alaska 99510
(907) 277-5357 • (fax) 277-5975
amcc@akmarine.org • www.akmarine.org

Dorothy Childers

To: David Benton, Chair
North Pacific Fishery Management Council
Fr: Dorothy Childers
Dt: Feb. 1, 2003

Agenda Item C-4, Essential Fish Habitat

Recommendations:

1) New Alternatives

- Retain Alternative 5-B (Aleutian Islands open area approach) in the range of alternatives.

This alternative is a thorough plan for the Aleutian Islands designed to ensure protection for sensitive coral and sponge habitats. It focuses management on bottom trawl fisheries where 97% of coral and sponge bycatch in the Aleutian Islands occurs while retaining most areas important to those fisheries. It prevents future movement of bottom trawl effort into new, potentially high value coral habitat.

- Do not retain Alternative 6 (20% closure to all bottom tending gear) without considerable revisions, including development of more specific objectives for each management area and engaging scientists with stakeholders and communities to assist in the design.

2) Bottom Trawl Gear Configuration

- Accept the EFH Committee recommendation to apply the requirement of disks and bobbins on bottom trawls as a gear configuration only for the eastern Bering Sea shelf in Alternatives 4 and 5. (Remove this gear configuration from alternatives for Aleutian Islands and Gulf of Alaska.)

Alternatives 4 and 5 currently contain the following language: "Prohibit the use of bottom trawl gear in designated areas of the Bering Sea, Aleutian Islands, and Gulf of Alaska. *Bottom trawl gear used in the remaining open areas would be required to have disks/bobbins on trawl sweeps and footropes.*"

This gear configuration is designed to provide a 3 to 3.5 inch clearance between the footrope/sweeps and the seafloor. The EFH committee intended this to apply only to the Bering Sea shelf where the substrates are relatively less complex, and footropes fixed with this roller gear *may* reduce interactions with the seafloor.

- Include a research plan to evaluate the effects of this gear configuration on habitat and bycatch before institutionalizing it in regulation.

3) Baseline for Analysis

- Set the baseline as the original fishery management plans before any amendments were added. The analysis would evaluate all amendments that had either positive or negative habitat effects.

**FISHING VESSEL OWNERS' ASSOCIATION
INCORPORATED**

ROOM 232, WEST WALL BUILDING • 4005 20TH AVE. W.
SEATTLE, WASHINGTON 98199-1290
PHONE (206) 284-4720 • FAX (206) 283-3341

SINCE 1914

C-4
Bob Alverson

January 30, 2003

Comments to the North Pacific Fishery Management Council and Advisory Panel.

The following are some of the concerns from the members of the Fishing Vessel Owners Association regarding option 6, which attempts to address essential fish habitat concerns.

Essential Fish Habitat


1. What is essential about the areas that have been proposed. If these areas are based on CPUE data from the fixed gear fleet then the areas reflect adult fish habitat. What makes these areas essential or more essential than areas where juvenile are found. Perhaps one additional option for closures would be to close 20 percent of those areas identified as juvenile habitat not adult habitat. The criteria for choosing these areas as essential is not defined or discussed.
2. The rationale to close the areas in option 6 seems to be based on where the sablefish, halibut, crab, and cod fish fishermen catch most of their fish and crab. In the case of halibut it would appear that there are proposed closures that cut through Seward Gully and Portlock Bank in statistical area 3A. There seems to be an assumption that if you fish in an area then there needs to be mitigation of habitat. The question is from what? What is the problem being imposed by fixed gear in these two areas that requires total closure? Is it significant that the halibut fleet has fished these two habitat areas for 90 years and the resource is at its highest recorded abundance? We think this suggests that over 90 years the longline fleet has had no measurable negative impact on this particular adult habitat. In fact a similar argument can be made for all the areas and the relative fisheries that were used to determine fixed gear closures.
3. If the halibut fleet were eliminated from these two traditional grounds in area 3A it would force vessels to move to less productive grounds. It is estimated that the CPUE average would drop by one third to half in order to catch IFQ limits. If this is truly a option that is going to be annualized then the following impacts need to be assessed. A. 100 to 300 percent more hooks baited and set. There are many implications for this which include red fish bycatch, bird interaction, and costs. B. Market implications, the additional time to catch the fish will have a significant

impact on fresh vs frozen markets and price per pound. C. Safety implications and lost gear implications.

4. The areas that are proposed to be closed based on CLUE from the sablefish fishery would have similar affects as mentioned above. The sablefish resources is rebounding and if the 1998 year class is as large as predicted the harvest levels could be increased to relatively high levels. Does this suggest that the current management that prescribes the use of hooks in the Gulf of Alaska is causing a negative affect on adult habitat of sablefish? We do not think it does. It suggest to us that our gear is complimentary to the needs of the resources and has no measurable impact on adult sablefish habitat.

The basis for choosing the closed areas in option 6 seems to be based on identifying adult habitat for different species. There seems to be no explanation as to why this is needed and what the hurt is from the different fixed gears targeting in the specified areas. There seems to be no attempt to look at juvenile habitat and no explanation as to what makes some place essential. Our industry was informed at the Pacific Council that every cubic centimeter of water is essential at sometime during the year because something will have lived in it during the year. If areas need to be set aside there needs to be a measurable impact and gain realized. An example of this would be the very large area in the Bering Sea that closes an area to longline halibut operations, because the area is known as habitat for juvenile halibut. This area alone probably represents 20 percent of all the habitat between the Gulf and the Bering Sea for halibut.

Option 6 fails to address why the areas are essential and what is the measurable negative impacts and measurable gains that will be realized. The secondary impacts both in bycatch, bird interaction, and cost impacts will need to be addressed. Analyzing illogical options in our opinion do not satisfy NEPA. Such options can probably ruled improper. Realistic options based on measurable impacts and gains are reasonable for analysis, option 6 is not reasonably proposed and being such fails to provide a reasonable option to make a decision from. Perhaps an option that looks at closing 20 percent of the juvenile habitat areas to those gear that have measurable impacts would be a reasonable option to consider.


Robert D. Alverson, manager
Fishing Vessel Owners Association