Steve Pennoyer: Mr. Chairman, I don't know what you want to take up next, but there have been requests that I say a few words relative to the Knauss letter and any other insight I might have on the submission to you, so if you're starting deliberation maybe this is the time to do that, or I'm willing to do that at another time if you want to.

Chairman Rick Lauber: I have no objection now if you want to.

Pennoyer: We're still missing one member, I don't know if you want to . . . [waited momentarily for all members to arrive]

Pennoyer: I have no further written advice on the topic beyond the letter that Dr. Knauss sent to you on March 4, 1992 regarding the amendments 18 and 23. I did talk to Dr. Knauss on the phone prior to the meeting and I have some further insight in his views. And with that, maybe I'll just go through briefly; I'm not going to read the letter but certainly some of the key parts of it are the first page where it says, "With respect to the 93-95 allocations the record now includes cost-benefit data showing a large net economic loss for the Bering Sea fishery for 1993 through 1995 without evidence of enough other [unintelligible] benefits to counter that loss." The key element, in his view, on the second page, he talks about the approval of the first year of amendment 18, he says that this approval will give the Council opportunity to take another look at the remainder of Amendment 18 and still have the plan in place for implementation during 1992. He also talks about, "as demonstrated by the approval of Amendment 23, NOAA is not opposed to the concept of an allocation between onshore and offshore interests as an interim measure pending development of a solution to the overcapitalization, ideally a market-based solution." He talks about instructions to the Council, that "the Council should examine and refine the assumptions and methodology of the NMFS [unintelligible] economic review; the Council may wish to identify countervailing benefits, modify the allocation percentages," etc., etc., in terms of what you may do with that economic study. "Clearly, a cost-benefit analysis should be appeared when it's reasonably apparent from the size of a proposed allocation that the cost to the nation associated with that allocation might begin to approach the level that we are presented with by full implementation of Amendment 18." "...(?) there's going to be an economic cost to the nation the second, third and fourth years of Amendment 18, I recommend that the Council carefully consider whether losses of that magnitude can be offset by other benefits." He goes on to say later, "I am concerned, however the economic effects of the out years of Amendment 18 were not clearly understood at the time the Council took its action." Lastly, he talks about "urging the Council to work expeditiously as possible to . . . (?) some other method of allocating fish, in either the olympic system, or direct government intervention," and goes on to talk about the fact that over the long term a program that reduces the cut-throat competition of the olympic system and relies more on free-market decisions instead of government intervention would seem to be the most viable alternative.

Talking to Dr. Knauss, he emphasized that based on the analysis at the time of the decision he was concerned with the cost to the nation of the out years 2, 3, and 4 in the Bering Sea. He pointed out that based on that analysis even for year 1 the costs may have been high if the whole year had been taken into account. He talked about the fact that he found it hard to justify much beyond stabilizing what we have now with the information he had at hand absent new information. He talked about the stabilization (?) opportunity here in dealing with preemption to give the Council time to deal with the true underlying issue of overcapitalization in both sides of the industry. So, I think basically that's

sort of a reiteration of what is in the letter, but I think that is the level of guidance to the Council. Clearly, we've heard a lot of discussion on the economic study and I know there's going to be a lot of work on that analysis, I would emphasize again the economic study was not the only rationale for the decision. Dr. Knauss did examine the whole record, including public input, including the Council's information on conservation, on the environment, on the social benefits, when he reached the decision he did. Information we did have at the time was there were fairly large net costs to the nation of the out year considerations. So, with that in mind he did approve the Gulf for the whole of Amendment 23, Amendment 18 he approved at least the concept of CDQs understanding, as you have already taken care of at this meeting, at least starting down the track, that there will be a rulemaking on the criteria so he could evaluate exactly where the CDQs were going to go and the benefits that would be derived therefrom, and the '92 allocation of the B season in the Bering Sea. There's been a lot of discussion as to whether the catcher vessel operational area carries over into '93, 94 and 94, and that's not the case. Basically, the whole amendment, except for CDQs, just goes only through the '92 season. I think I'll leave it at that, Mr. Chairman, and either respond to questions or have further observations and deliberations go on.

Larry Cotter: Mr. Pennoyer, the cost-benefit analysis that we received this week, is it the Secretary's position that that analysis is sufficient to meet the analytical desires that the Secretary has?

Pennoyer: I think Dr. Knauss used the best information available to him at the time which included that record of the NMFS-prepared cost-benefit analysis. I think he stated in his letter the Council should examine and refine basically, if necessary, the assumptions, methodology of the economic review. Certainly, if there's more input to be had, if there's more data available than was available at the time the study was done, then I would assume that that would part of your deliberations. Mr. Knauss is not in any way prescribing how you're going to look at that or how it's going to be done. He expects that you would work with the best available people and any other information you could get together to reach your decision.

Cotter: As I understand it, the analysis that was done did not include any work to determine consumer surplus and is it Dr. Knauss' perspective that a cost-benefit analytical package does not contain all of the elements that might normally be found in a cost-benefit package is sufficient as long as it's based on the best information available at the time, or would we have to include everything regardless of the length of time it may take us to do that?

Pennoyer: I think your last quote, "regardless of the length of time it might take to do it," is one of the key elements involved. I think, again, he used the best information available to him at the time; I think in terms of the time and the complexities of dealing with all the things you might do if you want to talk to the economists, and ask Mort in particular if you want to get into some detail, I think if Dr. Knauss was convinced there was no way to do that in the time available, then he would also expect you to also use the best information available.

Bob Mace: I think it's more the Council's responsibility to take a look at this economic analysis. We heard a tremendous amount of testimony regarding concerns about the inadequacy of it and I, as a Council member, would certainly like to see that material fleshed out. It's very difficult to make a decision on the basis of what I consider an inadequate analysis, failure to consider some very serious social concerns, and so I think that our direction should be toward fleshing that out as soon as we possibly can.

Wally Pereyra: Steve, my concerns go even beyond that. In looking back at the Executive Order 12291 and the Guidelines for Regulatory Analysis of Fishery Management Actions which NMFS

published in March of '90, looking back in there, one of the points which is made, and it's made in several places, is that when this council or any council is looking at making a major action decision which this has been deemed, that it is a requirement that we have before us a benefit-cost analysis, possibly of this sort, a benefit-cost analysis on the no-action alternative which becomes our baseline, and then a benefit-cost analysis on all the reasonable alternatives that we're going to be looking at as a council in making our decisions. Now, I guess the question I have is, how can the Secretary, or in this case Dr. Knauss, deem this as being adequate in terms of making a decision when in fact we didn't have this analysis before us when we made the June decision nor an analysis on the no-action alternative or any of the other alternatives we were looking at to see which might have been the least cost alternative to the nation in terms of making our decision? I'm at a little bit of a loss to see how we can sort of fill in the gaps coming in after the fact with just one analysis on the so-called final decision.

Pennoyer: I think you're getting back in to the whole question of the original document and how other people would argue how he didn't, we've heard a lot of testimony, on how didn't accept the whole thing, so I guess it goes both ways. He had a huge bundle of public testimony, and Council input, a lot of other factors there, he didn't just look at that cost-benefit analysis. The cost-benefit analysis that was done in effect did sort of take into account the no-action alternative because it used as its base whatever that is, I mean I'm not sure what the no-action alternative is in terms of the percent the Council might of chosen as the status quo, but the study shows 1991 as the status quo and as I believe, Mort may rule me as wrong, it basically then did at least from a standpoint of costs and benefits, you looked at at least the current snapshot of allocation inshore and offshore as a base and it measured all those changes from that base, so I don't think it's reasonable to say there's no examination of. . .I guess status quo would be a word, although I'm not sure we ever defined status quo as either relative processing capacity, 2-year, 1-year, 5-year catch history, or anything else. It wasn't defined in the amendment, but he did certainly have a major record in front of him and whether the Council had that in front of them or not, we've argued that before and I guess the legal opinion is the Secretary can supplement the record.

Pereyra: I'm not arguing that we didn't have a substantial record, I'm sure it's voluminous, but in fact the snapshot we had was '89, it wasn't '91, as I believe the database we had I think it was an '89 database.

Pennoyer: I think the NMFS economic study, however, used more recent data, including more recent catch data.

Pereyra: That notwithstanding, I still don't see how this satisfies NMFS' own guidelines that are based upon 12291. ...?? anyone talks about the benefit-cost analysis that's required in a major decision, the analyses, and we have one analysis on one alternative and it was made after the fact and I still have trouble, as I had back in June, understanding how we can make this kind of major decision without having all the tools before us.

Lauber: I seem to remember when the economists from NMFS made the report they started out prefacing their comments on how they arrived at it and I can't quote them exactly but, the statement was that in a large part in fact almost all of their information came from the record, whether it was from testimony or other studies or whatever and there wasn't a significant amount of newly-collected data and therefore to some extent at least for cost benefit purposes and I realize that's only a portion of the record, but the report that we had was a synopsis of what was already technically in the record and presumably the Council and certainly the Secretary had that available when they made the decision, so are you suggesting that we commission a . . . well, what are you suggesting?

Pereyra: My point is, Mr. Chairman, is that, for example let's take alternative 6, there's some folks that feel alternative 6 was a more reasonable alternative. If we had a benefit-cost analysis on alternative 6 it might have shown that maybe the net loss is only \$50 million instead of \$300, that would have been a very significant piece of information to have in our hands at the time we made our decision. It might have weighed the way we looked at various alternatives and the one that we ultimately selected. That's what I'm getting at and no one has yet answered that question satisfactorily, at least for my edification. Maybe . . . satisfied.

Pennoyer: Well, first Mr. Pereyra, I don't know where you're going with this in terms of where we go from here. EO 12291 and our guidelines under the RIRs and Regulatory Flexibility Act don't require a quantitative cost-benefit, it requires an assessment of net benefits and they can be qualitative. There are a lot of comments that are qualitative, you can judge for yourself how adequate you think they were or weren't. Dr. Knauss felt that the arguments were compelling enough to approve the Gulf and to approve the first year in the second half of the Bering Sea. Are you arguing that Dr. Knauss shouldn't have made the decision he made, or are you arguing the Council should go on from here in some specific fashion? I don't know where you're going with the argument.

Pereyra: Well, I'm just trying I guess to get some understanding as to how the Secretary, in this case Dr. Knauss, can go ahead and approve an action that does not meet his own requirements that he set out in his own directives.

Pennoyer: Mr. Chairman, it is his believe he did meet those requirements or I'm sure he wouldn't have taken the action he did.

Pereyra: Well, then where are the benefit-cost analyses of the other alternatives? Where are they? We never had them.

Pennoyer: You had qualitative analyses, and actually the analysis purported to say that the benefits were basically a push. You had input-output analysis that covered some of the actions within sectors, agency's discussion was that in the alternative chose those probably were not adequate to give Dr. Knauss the information he thought he had to have, so he commissioned the cost-benefit study which, and it's a varying factor (?), no matter which alternative you chose, if in fact the allocation between sectors gave you a range of things that might happen either under the status quo or the percentages, and they're all there, the 35, 40, 45, they're all there for different years, that you could look at. So you saw a cost-benefit of a range of allocations. Now the of question whether you should do an allocation of inshore-offshore was not strictly a cost-benefit, it was also a qualitative analysis based on social benefits and again I would say look at the full record and I will guarantee you the record's substantial. Now, some of you may agree with it, some of you may not, but there were, I don't know, what, a 1,000, 1,100?, 1,100 public comments and it's a stack about like that, including all the things the Council did and sent in, including the supplemental analysis that he commissioned the National Marine Fisheries Service to do, so the various requirements under the National Standards and EO 12291, sort of speak to good common sense--Do you have enough information in front of you to make a decision given the type of information, the timing needed to make the decision, the decision of the Council, they wanted something in place by 1992, for example, all those factors bear on it, social, environmental, other factors as well when you look at net benefits; it's not strictly cost-benefit analysis and the cost-benefit analysis speaks both qualitative and quantitative assessment of costs and benefits and depending on if you have the data or not and its available you may do it qualitatively, so there's quite a variation in the amount of latitude you have in any analysis you look at. The idea is the decision-maker should have the best information available at the time and that will vary in

judgement according to the decision-maker. Dr. Knauss felt the best information since it was possible to do it and I think we showed it was even though some people obviously debate and indirectly so some of the assumptions and factors used in the study, was that study in combination with the other factors presented in public testimony and by the Council, and I don't know how else to tell you that I'm not sure that I can prove to you which particular type of analysis you have to have; in his judgement it required the things that were in front of him, including the NMFS cost-benefit study.

Joe Blum: I have a couple of questions of Mr. Pennoyer. Is a part of the 1,100 public comments the one in which my name appears first as being pro the Council action?

Pennoyer: Mr. Blum, your name appears nowhere in any type of decision document as pro. The comments, yours was one, were separated by group for purposes of people doing work. Your comments really judged to be more technical rather than judgmental in terms of pros and cons of the amendment, and they could have been put in any column, certainly nothing was ever used from the Washington Department of Fisheries or you personally indicating that you were pro or con that particular amendment. They were simply assorted according to work [unintelligible]; it was internal sorting, it no bearing on anybody's decision.

Blum: I had a second question; that was just sort of to clarify for the record that those 1,100 comments may need some further scrutiny. The acoustics in this room are not particularly good, so when you were going through your summary of your telephone conversation with Dr. Knauss I was trying to keep up with you and you were both going fast and the acoustics were going poorly, you mentioned something about even if year one's half of the B season was expanded to a full year, Dr. Knauss had some problems with that. Could you, and I don't mean to interpret what you said 'cause I really didn't catch it all, but could you go back through your's and Dr. Knauss' thoughts on that particular point?

Pennoyer: What I think I said, and I think you did pick up, and I'm sorry I wasn't speaking directly into the microphone at the time or, as is habit, going too fast, I think what he basically said was he is very concerned, given the analysis he had at the decisions, that the cost to the nation of years 2, 3 and 4 were too high to justify, given again the data in front of him at the time. He then also said that you could argue that year one, for a whole year, would also be a very major cost to the nation. And, given the data that was in front of him at the time, I think if you look back in the table presented by Mr. Miller, you'll find that at least one of those shows a full year for year one in the Bering Sea; I know you have get around which percentage you use for inshore-offshore allocation and recovery rates and so forth, but showed a reasonably substantial cost if you used the whole year. And, just doing it for the B season it showed much less cost and he felt that on that basis he could justify going for the B season.

Blum: Final follow-up, Mr. Chairman, and that would be, one of things that we have been advised by testimony today and I think even by your words today was that we should use Dr. Knauss' letter as guidance and a framework or some such language was used. If we were to use Dr. Knauss' comments and your comments today as guidance, what guidance is that, that we've got a lot of work to do with respect to putting together a program for years 93, 94, 95, that will meet a reasonable costto-the-nation test, or that we need to just fill in some gaps and truck this thing on down the road as rapidly as possible? I'm trying to get a sense of the guidance, is it that we got a lot to do, or we got not so much to do?

Pennoyer: Mr. Chairman, obviously the Magnuson Act doesn't require you to do any specific thing. You can simply resubmit what you had, there a lot of different actions you could take. If go under

the expedited review process instead of a new amendment you've got to stay fairly close to what's already been done because the expedited review reduces the amount of public comment and needs therefore to be at least within the framework of what the public could have reasonably expected to have seen the past or during the previous process. I think Dr. Knauss is saying that unless the analysis changes, if you sent back what you sent in the first time, his response might be the same. How much work is involved in assessing whether that is the appropriate thing to do or whether . . . [tape did not overlap . . .submitted, that it's probably beyond the scope of an expedited review process. For example, if you decided to throw in Arrowtooth flounder or yellowfin sole or something like that, that would be well outside anything that was previously analyzed and certainly wouldn't go in under the expedited review. If it comes along the lines of inshore-offshore allocation of pollock and is within, even if the percentages aren't exactly that, but is within the scope of what you first submitted, then you can. Now there are all sorts of. . . well, obviously, one of the things that was presented to us this morning was going back to alternative 6 or a modification of alternative 6 and using that and I guess at this time our judgment would be you probably could do that, but if you get off into something entirely different than was envisioned, either in species or method of catch division or, for example, you decide to make the whole Bering Sea an operational area for somebody, I think you'd be outside the scope of what you dealt with originally, would require a full plan amendment because you really ought to go back and do the full review with full public input all over again. If it's within the scope of what you submitted the first time, which the public has generally commented on and the analysis, then you're probably all right.

Cotter: I don't want to split hairs with you, but you said we 'probably' could do it, and 'probably' would be all right, does that mean in all likelihood everything is hunky dory?

Pennoyer: I think the answer is "okey dokey."

Lauber: Let the record reflect that that statement was made after extensive consultation with NOAA General Counsel.

Lauber: Any other questions? All right, where do we go from here?

Bob Alverson: I'd like to make a motion of clarification and move that in regards to the implementing regulations, that catcher vessels delivering to floaters in the designed closed area in the Bering Sea, that the intent of the Council was that they would be able to do just that, deliver to floaters within the closed area.

Pennoyer: Point of clarification, I don't think you've got a closed area in front of you, I don't think you've got an allocation in front of you, I don't think you've got a framework in front of you to modify. I think you've got to go back to the starting point. You don't have the catcher vessel operational area and you don't have an inshore allocation for 93-95, so, and I think the operational area as well has to be part of your motion. We have certainly in this year had factors presented to us in public testimony that there's some changes—Bogoslof closures and so forth, and they have changed the way the fishery operates as opposed to when we first started thinking about that, so I'm not suggesting you have to do that, but certainly your consideration of it has to be before who can operate in an area that doesn't exist yet.

Alverson: I thought Knauss said it existed.

Pennoyer: Only in the B season in '92, it is; there's nothing besides CDQ in 93, 94 and 95.

Lauber: Dies for the lack of a second.

Blum: No, Mr. Chairman, for further clarification, I would ask Bob, were you talking about for '92, because that still is an issue I believe, in the same context of the question you were raising.

Alverson: I was thinking of the B season, I'm not. . .

Blum: I'm going to second the motion so that we can have this thing fully discussed. There's a lot of anxiety in the audience, and probably at this table, over what these regulations are going to look like and Mr. Alverson's made a motion that is going to help clarify that and I think we ought to talk about it.

Alverson: Steve, could you run through how the B season will be...how that operational zone will affect the B season?

Pennoyer: The regulations are not out yet, so I can't tell you what they look like until somebody approves them exactly, so right now. . .

Alverson: Well, that's what this motion. . .to clarify at least our intent. If you're unclear and Mr. Knauss is unclear what they're going to write, it seems appropriate to suggest what we think you should write. He doesn't know what he's going to write.

Pennoyer: Probably we're a little beyond writing, but OK, I'll tell you, at least clarify where I think we are in the interpretation and that is that the interpretation was it was basically an area set up to allow or to promote inshore harvest, I'm not debating at this state the merit or lack of merit, set up to allow and protect inshore harvests and catcher vessels that any processing unit would have to declare its inshore or offshore, we're using the declaration by delivery, would have to declare its inshore or offshore direction for the year and then would have to operate either within the territorial seas or, in the case of motherships, if they're going to be shoreside, or obviously outside of somewhere if they're going to be offshore. And the regulations as now proposed I believe say that catcher vessels can operate in the catcher vessel operational zone. Catcher vessels as defined can deliver to either the inshore or offshore components but the offshore component, including both catcher-processors and motherships has to operate outside that zone. That was our interpretation of the Council's original motion. I haven't yet seen anything to clarify that further so if you want to clarify it, then that's fine. I'm not sure that at this state something that's probably already somewhere up there is going to be drawn back and redrafted, but. . .

Lauber: Any further discussion?

Cotter: So, Bob, under your motion, then, a catcher-processor that decided. . .they can't fish inside the zone. . .but if it decides to move into the zone and take fish from catcher boats, that's O.K. then because now it's a mothership, right?

Alverson: Well, I believe the catcher-processor and the floater operations are all one, aren't they?

Pennoyer: Well, then it's an offshore operation, including the catcher vessels, is that what you're saying?

Alverson: But they're catcher vessels, why can't they compete with other catcher vessels?

Pennoyer: They can, but you said it's all one and so you have the zone, not debating the merits, that supposed to protect an inshore harvest, at least I think that's why it was set up, so any number of motherships with catcher vessels can operate in that zone? I don't...anyway, I'm not debating you, I just don't understand what you were trying to do originally.

Alverson: I believe the original intent, Steve, was that these catcher boats would be able to participate in there, which they can under what you said; these catcher vessels can operate in there and I don't think it was the intent of this Council to encumber them to tow their codend 50 to 60 miles outside, which is totally an impossibility, and deliver to a mothership. Was that the intent? To allow these guys to fish in there in the first place?

Pennoyer: I don't know, I can't tell from the motion...

Alverson: It wasn't my intent, and then not have any place to deliver their fish.

Pereyra: I think we have to go back to the so-called problem statement to get a handle on just what the intent of this so-called closed area zone was. We have a problem statement that says that we have a preemption problem from an inshore-offshore context and that mobility, besides the overcapitalization issue, mobility was one of the factors that entered into that, and also that vessels could come into this area, into this inshore area and somehow the offshore vessels preempt the opportunity for inshore vessels to make deliveries on shore. I personally tend to disagree with that, but nonetheless, if in fact we're going to be setting up this zone and it's going to be something which is going to be responsive to the problem statement, then I think the National Marine Fisheries Service interpretation of that particular regulation or portion of the regulation is correct, that in fact, the offshore sector should be excluded from that zone if that's what we're really trying to do. I personally feel that now we've got allocations between inshore and offshore the zone really doesn't serve a purpose, but that's another debate. But in terms of this regulation I think that it is properly interpreted, at least it's interpreted the way I saw it.

Cotter: Mr. Chairman, I concur with Mr. Pereyra. I made the motion and I have gone back and look at the record and try to refresh my memory and unfortunately the record is pretty silent in this regard, but the motion is pretty clear. The motion says it's an inshore harvesting operational zone and it states unambiguously that the harvesting vessels, catching vessels, can deliver their catch wherever they wish, but that the offshore processing entities are not able to operate in that zone other than the 65% that they get during the A season.

Lauber: Well, I don't know extensive the record was, but I can remember discussion of the fact, someone asked a question, what if the factory ship was lying outside the zone, could you deliver to the factory ship and I think the answer was, yes, they could, they could deliver anyplace they wanted to, but the factor trawler could hot come within the zone to take delivery. Now how much more discussion there was, I don't know, but that was one of the things we discussed. The other question someone raised today was the situation was could you then, assuming that we've heard that the season may be shorter for one segment than the other, would it then be allowable that the one factory trawler could cease processing and convert to a catcher vessel while another one would become a mothership and you could deliver from one converted factory trawler becoming a catcher vessel to another one that wasn't.

Pennoyer: I guess maybe the thing to do is to get somebody to go out and get the record which was typed up on that meeting and go back and double check whether those specific pieces were entered or not. I think it will basically show that in fact Mr. Cotter's interpretation is correct, but I'd like to

have it in front of me before I definitively say that. Clarence, could we perhaps get a copy of that quickly and take a look at it?

Lauber: O.K., without objection we'll table the motion so we can take a look at the record.

Alverson: Question before we table it? Steve, will you be having your agency do an analysis of biology of whether or not this operational zone is functional anymore based on the way we've evolved to this point?

Pennoyer: Well, I don't think we'll . . .

Alverson: For the purposes of making a decision in August? If that's when we make a decision.

Pennoyer: You mean separately from whatever you're going to do. My assumption is we're going to leave this meeting, appointing a team of some kind between probably Council staff, NMFS, with I guess I've heard on economic part some industry ability to have input to the parameters and data and go out of here looking at all aspects that you instruct us to look at and I would guess that I would advise you here as we get into that section that you probably should do that, you probably should look at the viability of the area given the change in the fleet operation this year, particularly in the A season, so I hope it isn't us doing the analysis separately, I hope we're doing the whole thing as a team in some fashion between now and June, then in June you'll put it out to public review, and the August meeting, or whatever it is, I'm not sure when it's going to be, but the August meeting we've been talking about, you would actually decide whether to adopt various alternatives to send back to the secretary.

Lauber: All right, we have on this agenda item: set alternatives and a schedule for analysis on a revised amendment for some date, 93-95, and the other item under this agenda item is to initiate an analysis of inshore-offshore bycatch amendment. I have no fixed idea of which one we want to take up first, but that's where we are.

Pennoyer: Mr. Chairman, I would suggest you do the bycatch part second after you decide whether you really want to do something or what you want to do on the allocation, you don't require bycatch if you don't have allocation.

Lauber: O.K., without objection, let's direct our attention to item (b), set alternatives and schedule for analysis.

Mace: It seems to me the starting point that we certainly ought to include the AP's recommendation to analyze a range from 35% to 45% for the onshore component. I think we ought to also analyze the catcher vessel operating area closure that we had last year with some of the proposed changes come to light, and I think that that's all I'm going to comment on now. I think we have to pay some attention as to how much staff time we have for the total analysis of this if we're going to get it out for an August meeting.

Lauber: That's not a motion, but do you want to make it as one?

Mace: Yes.

Dyson: Second.

Lauber: You've spoken to you motion, is that enough or do you want to go again?

Mace: I'd like to comment on number 6, proposed amendment that we had some discussion on here, and someone's maybe going to have to refresh my memory. As I recall, I'm the character that made the motion last year and the original one based upon our reading of what the catcher vessels wanted, called for 20% to be allocated to the mothership fleet, I think I'm right on that, and subsequent to that the catcher vessels apparently had a meeting and they suggested the alternative that we finally adopted, 35% for 92, 40% for 93, and 45% for 94, and I could be wrong on that, I don't know. . .but that's as I recall it. So, I think that the Council proceeded in good faith in taking that action so I don't know where to go on that particular proposal so I'll leave that to someone else.

Blum: I'm confused to be very honest with you. We just had a highlight of the letter from Dr. Knauss and we had a highlight of a phone conversation with Dr. Knauss and my interpretation of that was that 35, 40 and 45 percent with the data presented to him at that time was too expensive to the nation to adopt. If we are no pursuing a motion that says we're going to submit that right back to him, what are we going to do to address the issues that rejection to that approach raised? Are we basically saying to Dr. Knauss if we pass the AP motion, 'Dr. Knauss, we disagree with you, take another shot at it'? If so, then what Steve has said informally this afternoon is that we would stand a fairly good chance of that being rejected. Does that get us anywhere?

Pereyra: Point of clarification. Bob, when you say 35, 40, 45, I assume you mean over a three-year time proposal, sort of phase-out proposal? How are you proposing the CDQs be handled? Are they going to be in addition to?

Mace: I thought we decided that was going to be taken out of the reserve, didn't we, off the top?

Pereyra: Yeah, it is, but it could in fact be largely shoreside. If it is, it's just more additional shoreside, is that the way it's looked upon?

Mace: No, that's not the way I perceived the discussion on it. I thought that that was the first thing we took off and then on the remainder the percentage would be as stated.

Pereyra: I know, but it's going to be landed somewhere; it's not going to be landed in the Hawaiian Islands, it'll be landed in the state of Alaska, or there's a possibility that may be some done offshore, What I'm saying is that if we're going to be measuring the 35-40-45 alternative against the status quo. for example where we are today, we have to take into consideration where the CDQ proportion that's coming off the top is going to be landed because if in fact it is landed on shore that becomes additional onshore. So, instead of having 45%, you wind up with something that's probably closer to 50% in the final analysis and that's why I guess we have to come to some understanding, what are we going to do with it, are we going to say, well it's going to be landed in proportion to the 35-40-45 so that would mean that only 35% of the CDQ could be landed on shore?

Mace: Well, I'm not sure I can answer that. My perception of the community development quota system was that it was separate and apart from the commercial industry as we perceive it and that I guess they're going to take it off the top, I don't know, it would apply to neither one of those two categories, it's more or a less a social allocation.

Pereyra: But you see, in terms of measuring. . .

Lauber: It's been asked and answered. Mr. Hegge.

Ron Hegge: Mr. Mace, did you purposely leave the operational zone out or is it part of this motion?

Mace: It was a part of the motion. Now, really what we're doing here, Mr. Chairman, is developing a set of alternatives to consider at a meeting, I suppose in August. And these are very logical alternatives. I think we've had very considerable discussion on them in the AP and it would be very difficult to ignore these for analysis and that's simply my starting point and what I think should be included in the analysis.

Hegge: Along that line, I guess to Mr. Pennoyer, you took some rather extraordinary emergency rule as far as extending the sea lion closures in that zone and I would think that that would require somewhat separate analysis over and above what we did before. You commented that there was new information or new effects I think was what caused that action.

Pennoyer: Mr. Chairman, you have a few new things that did occur. You had the closure of Bogoslof and some then consideration of the fishery that can occur in the A season by both the onshore and offshore fleet and you have the 20-mile closure as well which also if in effect for next year would have some effect on a significant part of that pollock fishing area near shore so I think all those things should be in the analysis. You need to look at the configuration of that zone and whether in fact both fleets would have adequate opportunity to take whatever share you assign them.

Cotter: Point of clarification to Mr. Mace. The way I interpreted your motion, is in essence that one alternative to look at is the action the Council took last June as it includes 35-40-45% split, same definitions, the operational zone, and CDQs are already dealt with.

Mace: That's right, and Mr. Chairman I would assume that there's potential for other alternatives. I'm simply listing two of them that stand out very apparently as a starting point.

Blum: If we want to add additional alternatives to be analyzed, do we have to add them as an amendment to this motion or is another motion after this motion is voted either up or down?

Lauber: Probably would be better if we treated this as an umbrella motion and you wanted to add other alternatives, but I don't think that by voting this one in would preclude you from adding others either, but. . .

Blum: I would make a motion, Mr. Chairman, to amend Mr. Mace's motion to include an analysis of status quo.

Henry Mitchell: Second.

Blum: By status quo I mean the present 1991 split, no operating area, and I think we need to take the reality of the Bogoslof situation and say it's probably going to be the reality for the next several years, so that Bogoslof reduction would be part of the status quo.

Cotter: Point of clarification. When you say, status quo, to me that means where we are now.

Blum: I said status quo '91.

Cotter: Yeah, oh, '91, so that would be just whatever the split was between the two components, or does it mean no allocation, because there was no allocation in 1991.

Blum: It means no allocation.

Cotter: Also, Mr. Chairman, as a point of clarification, I guess to Mr. Pautzke. That's automatically an alternative, is it not?

Blum: I'm sorry, Mr. Chairman, but it's not. Had it been automatically an option we would have had an analysis of it, but we didn't.

Lauber: I think it's automatically an option because if all other options fail you have the status quo, you have nothing, so if nothing else goes in, either we do not arrive at any option or decide not to send anything in, whatever the situation is continues so. . .status quo is always a constant option if you do nothing.

Blum: We're talking about things for analysis and I'm asking that status quo be analyzed, that we not be left where we are today and where we were last June, where it was not analyzed.

Lauber: Where would we be if we don't do anything, that's your motion.

Blum: Correct. With the Bogoslof modification because I think that's reality no matter what we do.

Lauber: O.K. Because we didn't have the Bogoslof completely closed, we had 200,000 tons in '91. Something like that.

Alverson: Joe, in that option is there also an opportunity for the Council to consider a allocation based on the 1991 historical landings?

Blum: Not included within that, no I would think that. . .

[both speaking at once, can't get it all]

Alverson: Yours is no allocation, just wild and free.

Blum: Just the way it is.

Lauber: Any further discussion on Mr. Blum's motion?

Pennoyer: So we have a main motion, this is an amendment to the main motion to include [Blum interjected something I couldn't hear] Pennoyer:...yes, that's the comment I was going to make. I'm not sure we should be picking either the symmetry of the percentages or necessarily restricting ourselves in the percentages we look at. This doesn't require we adopt them, but if we 're sending something out for analysis and we don't know yet how the analysis may change or the assumptions we may make or whatever, I think we ought to have a pretty good range to look at when we come back in June and I'm not suggesting we do everything from zero to a hundred or something like that, but I didn't understand you originally, as the no allocation analysis, but I would certainly propose that we look at least the 91 percentage as one end of the range we examine, so yours is no allocation at all.

Blum: Correct, and my response to Bob was that if someone wants to do the sharing as 91 looks like or 92 looks like, that's a separate amendment. I would like the Council to want the status quo analyzed.

Cotter: Well, I guess I'm confused and I really need some help understanding what's going on. [comments from Blum] I have always thought that status quo is an automatic option and even if the Council says it's not, it is. In this case, as I understand it, the action taken by the Secretary in the Bering Sea only applies to the B season and following the end of the B season then, with the exception of the CDQ program, everything reverts back to no allocation, no operational zone or anything else, so that is one definition of status quo. Are we together on that definition?

Blum: Mr. Chairman, I don't wish to presume where you or I may or may not be together. What, I'm asking for, Larry, is that we not get into the box that I think we got ourselves into in June of 1991 by not conducting full analysis of alternatives. We followed the basic default argument that you're just making, that if all else fails we default to whatever it is that we've been doing. That's all well and good, but I want analysis of what we've been doing in the same context that we're going to analyze 35-40-45, or whatever series of numbers we determine after that; I don't just want it to be the default, I want it to be out there and displayed and we have a chance and the folks out there have a chance to see what it is we're talking about.

Cotter: I guess this is where I then get confused, because any analysis on an alternative that deviates for the status quo has to be measured against something and that presumably is the status quo, that's the baseline, and so we have an analysis of status quo anytime that we have an analysis of anything that's other than the status quo because we have to show the measurement of deviation. Are you looking for something more?

Blum: I'm looking for something more in the analysis; I'm hoping if this motion passes that included in the cost-benefit analysis will be a cost-benefit component of the 1991 way things happened. If I could be assured that that will be automatic in all analysis of alternatives, I could be comfortable with withdrawing my motion, but I want to see that and I think it takes a motion to do that. If I'm wrong I'll be happy to. . . .

[Someone called for the question]

Lauber: Mr. Alverson had a question.

Alverson: Clarification from NOAA, on page 35 of the economic analysis for pollock and cod there's a baseline which the gentleman indicated yesterday was of 1991. Is it your opinion that that's always been an option, either to choose it as status quo or to choose it as a allocation scheme?

Pennoyer: I'd say that was within the range of alternatives you could look at relative to resubmission under an expedited review, but there's a difference here, this using 91 as a baseline still assumes a specific allocation and so your next judgement is to get that . . . it assumes that percentage is going to occur, so your next question is, would it occur, you're going to have to decide if in fact things are basically sort of stay the same if in fact you had no inshore-offshore allocation and no operational area, so it's a little different than just assuming you're going to do an allocation at the '91 level. That would be another question and you haven't done that one yet although I would presume that might be a logical one to add into it at some point after you decide on this.

Blum: Mr. Chairman, what I was using among my concerns was A3, A3 starts with a 1992 assumption of 35, then 93 is 40, and 94 is 45, and there's nothing in that table that shows what I am asking for to be shown and I think the Council could benefit from that information and I think the Council could then benefit from the 1991 split if it was a mandated split; I think we could benefit from both of those.

Cotter: Mr. Chairman, I notice Mr. Miller chatting and maybe he might be able to shed some light on this.

Lauber: Do you have some comments, Mr. Pennoyer?

Pennoyer: I'm sorry, Mr. Chairman, on what?

Lauber: I think Mr. Cotter saw you communicating with the economist from NMFS and thought. . .

Pennoyer: No, I think the discussion was really whether in fact Table A3 shows the change from 91, but again I think it assumes that the '91 proportion onshore and offshore would have occurred. Mr. Blum may be making that assumption, he may not, but he's assuming that (if) you would have no specified allocation you'd have status quo, which might be the '91 if in fact naturally the fishery would assume those proportions, or it might not if you want to make the assumption that there is some form of preemption that might occur, you don't know that, that would be up to some type of analysis that you would do.

Blum: Mr. Chairman, A3 does not indicate anything about '91, it's not as change, I don't believe.

Pennoyer: A3, all the tables in there are done from a base year of '91, so those are changes from '91 of that specified allocation.

Cotter: So does that mean if a 1991 column was on here it could effectively show zero in each one of these spaces?

Pennoyer: Yes, that's correct. But again, Mr. Blum's motion is different from that. Mr. Blum's motion is in fact that you would have no operational area and no allocation. It doesn't necessarily assume that '91...he's assuming '91 is the percentage you'd end up with. The analysis would have to show whether that's true or not. If you believe there would be preemption you might, either way, it might go either direction. So it's different than just saying we'd like as an alternative to look at the '91 harvest levels as an allocation.

Cotter: I'm going to vote against this motion. I'll just leave it at that.

Lauber: O.K., are you ready for the question? Call the roll.

Pautzke: Mr. Chairman, clarification, if the motion fails I think that staff is going to go ahead and use 1991 as a backdrop to look at changes under an allocational scheme anyway, I don't think we would go back to '89 or '90 and so if you tell us not to do this, we're probably going to use it anyway. So, [people talking all at once, couldn't get what he said]

Pennoyer: Mr. Chairman, I don't think that's quite correct. Mr. Blum's motion is no allocation, not '91, no allocation and no vessel operating area, so you have to go one step further in the analysis and decide if in fact you believe preemption and you need an allocation to do something and you need a vessel operational area to do something. It's different than just looking at '91 as a base, I believe.

Lauber: Yes, that's my understanding of it. We have no objection to using it as a base, we obviously have to start from the last best figures.

Pereyra: Mr. Chairman, I think what Mr. Blum is really putting forth in his motion is that if Mr. Blum's motion passes, which I hope it will, it's going to require that we really reexamine the problem statement to see whether or not the problem statement is germane anymore because we in fact have as part of the package which has already been approved, we have the Gulf, I would say 90% protected, and with the possible advent of this exclusive registration zone coming up, the Gulf is going to be entirely protected so the preemption issue is going to be different and the social issues and so forth in the Bering Sea are significantly different. So, I think Mr. Blum's motion is very germane in that context, requiring that in fact this whole status quo issue is reexamined because in fact, status quo may be a very valid alternative that we should embrace given what's been passed so far and given the events that have taken place, so I think it is a very germane motion and would hope that we could support it, I certainly can.

Lauber: Call the roll.

Pautzke:	Blum	Yes

Cotter No Dyson No Hegge No Mace No Mitchell Yes Yes Pennover Yes Pereyra **Krygier** No Alverson Yes Lauber No

Failed, 6-5.

Lauber: Are there any other amendments?

Pereyra: I would propose that we examine a 30-70 split as part of the suite of percentages that we look at in our analysis.

Blum: 30-70, how so?

Perevra: 30% inshore; 70% offshore.

Blum: Second.

Pereyra: Mr. Chairman, if you take the 1992 allocation which has been made, which is 35% in the B season, and do a weighted average of what the percentages are for inshore-offshore, it comes out to be pretty close to 30%. You add on top of that the CDQ issue and we're moving up into the 35% range for inshore, so I think that a 30-70 split allocation, to have a look at that and see how that compares with the 35, 40, and 45, I think would be valid for us to have at this time.

Pennoyer: I'm going to speak in favor of that motion, too. I think regardless where we end up at, and I don't know, the analysis and assumptions may change, we may find we want to do something entirely different than what was approved for the B season, there's any range of things we might end up with. But I think this Council ought to have the range of alternatives in front of us that encompass both what's happening currently in the fishery and what was proposed under the current amendment, so I'm going to vote for this as well.

Lauber: Any further discussion? Any objection? [None expressed] So ordered.

Alverson: Mr. Chairman, I have a question of NOAA General Counsel. Lisa, the motion that failed, that would set up 1991 as analysis for no allocation. If that is not analyzed, does that prejudice the decisionmaking process, not having that option?

Pennoyer: Mr. Chairman, I'm not sure why it would prejudice the analysis. In other words, your assumption is if we don't analyze the no-action alternative it means that we haven't fulfilled our task? I don't believe on a resubmission you have to do that. I think you're looking at an allocation you submitted. Dr. Knauss didn't tell you it was inappropriate to do the allocation; he tells you his concern by the effects of that allocation. I don't think you have to do that. I again hope the original motion includes the examination of the catcher vessel operational area and how it's going to function. Mr. Blum had no area, Mr. Mace had an area, and I guess we need to analyze, I'm not sure where in between the no area and the area we are, but that I think does need to be looked at because of the change in the fishery, but I don't think you need to have the no allocation alternative to satisfy the requirement in the expedited resubmission.

Blum: I'm wondering, Wally, if we included in your motion no operational area since it's the best estimate of 1992 split, would that accomplish what Steve is raising as a concern?

Pereyra: I'm sorry, I didn't catch that, because I was trying to develop my thinking for making a motion that we examine whether or not the operational zone is. . .

Blum: I was wondering by just excluding the operational zone from the present motion, if that would give the analytical opportunity that we're seeking.

Pennoyer: I thought the present motion passed. So, unless you want to reconsider the motion. . .

Blum: No, I don't want to reconsider.

Lauber: My understanding of it was a straight 30-70 split, that was the only thing he said and I presume that meant no operational area and I assume that was for the full three years.

Alverson: Point of order. Aren't these motions effectively amendments to Bob Maces' main motion?

Lauber: Yes.

[miscellaneous comments regarding this-several speaking at once]

Pereyra: Mr. Chairman, I guess what I would like to see and I don't know whether we've go enough options on the table here to analyze this, but I'd like to see in this analysis as we go through from 30 to 45%, in my case of course we're looking at 30-70 split for the three years, that's really what we're looking at. In the case of Mr. Mace, we're going 35-40-45 over a three-year period, with an operational zone as I understand it. Is that correct?

Mace: That operational zone can be considered as another alternative I imagine.

Pereyra: I guess the question I have is, do we have enough options on the table to where we would looking at the impacts with and without an operational zone in these two alternatives; I think that's something that's needed.

Lauber: Let's clarify this because it might save us another motion which I think might be coming. Would your motion, Mr. Mace, be that regarding the operational zone, that it would be analyzed the 35-40-45, plus with and without an operational zone? In other words, operational zone is kind of separate from it, you analyze an operational zone and no operational zone.

Mace: Yes, I considered it a separate. . . [several talking at once]

Lauber: So, we've got it with and without so you don't need to make your motion.

Pereyra: Fine, I don't like to make motions.

Pautzke: His would be with and without, too.

Lauber: And how about if your 30-70 split is with and without?

Pereyra: I would consider that friendly suggestion from the Chair.

Lauber: We're just bubbling over with good will here.

Cotter: Mr. Chairman, as long as we're on that type of a roll, I'd like to offer an amendment. I moved that we also include as an alternative the establishment of a Pacific cod CDQ.

Mitchell: Second.

Pennoyer: Mr. Chairman, before you discuss that, I think that's beyond the scope of the original amendment. We can discuss that, but I don't think P. cod was in the SEIS I sent back to the Secretary. [someone, Pautzke I think, said "it was only in the Gulf"]. Pennoyer: In the Bering Sea, I'm talking about Amendment 18, not 23.

Mace: Mr. Chairman, not all of us on this Council are jumping up and down happily in glee about this CDQ program. I think that we want to work into it on the basis of what we've done so far and learn something from it; if we try to grab too big a mouthful of duck feathers here we're liable to choke, I just think that what we've got is a good start and I'd be reluctant to expand it without some track record.

Cotter: Mr. Pennoyer, are you saying that it is not. . .

Pennoyer: Mr. Chairman, I don't, and somebody could prove me wrong I suppose, but I don't think it was in the SEIS that was sent back. I think P. cod was considered a ways back and discarded before the alternatives were sent back to the Secretary.

Cotter: That's correct, but one might say a CDQ is a CDQ, one might argue that too, but is that close enough to bring it within the expedited review.

Pennoyer: A CDQ is 7-1/1% pollock in the Bering Sea, half of the reserve, it wasn't a CDQ of half the cod, or 80% of the cod, or 50% of the cod, or any other number.

Cotter: All right, well, I withdraw my motion.

Blum: Call for the question on the main motion, as amended.

Lauber: Yes, any discussion? The amended main motion, are you ready for the question? Is there any objection to the main motion as amended? Hearing none, it passes.

Alverson: Mr. Chairman, would it be in order to propose an option to be analyzed under this past agenda item we left before the break.

Lauber: Well, I think so. We said we could handle two ways, but we were hoping we could get it all in one.

Alverson: I would move that the American High Seas Fisheries Assn option which was presented to us would be included in the analysis, and that would be analysis of an option that would give 40% to vessels that catch and process, 60% to vessels that catch but do not process, of which 65% is reserved for vessels that deliver shoreside.

Mitchell: Second.

Mace: Steve, let's discuss the task of analyzing this in addition to the ones you have already. Can this be done expeditiously and in time for an August decision?

Pennoyer: The people that did the cost-benefit analysis say depending on what we do to that model and that analysis that it could be modified relatively easily to look at the costs and benefits of doing that because you're still allocating a percentage to inshore and offshore. In this case you're allocating about 40% inshore, and then some margin that you have to make some assumptions as to which way it would go. The folks that deal with the input-output if we think we need to do that, and the social analysis indicate it's going to be a considerably more extensive task. I guess it's something we could do and I'm thinking of a whole bunch of things we're going to have out of this meeting that we're going to need for June, or heaven forbid August, that you're going to have to look at your priorities and what your realistic aspirations are and I guess in this particular case, why I said you need to look at a broad range of the type of things you submitted before, this wasn't one of the solutions you'd arrived at before as an optimal way of doing business, inshore-offshore, preemption, so forth, allocations, and if you don't think it's something you realistically think is a good viable alternative then you probably shouldn't give us the task and the time to analyze it. If you do, then we probably ought to look at it.

Blum: I would have tendency to support the proposal except for the fact of something, two something that Steve said. One is that is the Council isn't really interested in adopting it, I don't think we ought to waste anybody's time on it, the other is that it's going to require a bunch of new assumptions in the Cost-benefit analysis and I think what we've heard for the last couple of days about the cost-benefit analysis is based on people's concern about the assumptions that are made and we could be stimulating hours of debate over something the Council's not really interested in doing anyway. I'm worried about putting before the team any ideas that are going to require a whole bunch of creative assumptions because that's where these things fall apart. There's usually 10 percent that like them and 10 percent that hate them, and 60 percent that don't know what's going on, and I worry about that.

Pereyra: In our direction from Dr. Pautzke, he points out that if we're going to have the analyses completed by the June deadline, the alternatives must be few in number and they must be sharply defined. One aspect of the analysis which we haven't even touched on yet, which I think is going to require some looking at is the I/O model. The I/O model assumes that there will be no change in benefits but in fact we know that there are some negative impacts here, economic impacts, so in fact

the size of the pie is smaller and that has some distributional effects, so I'd like to ask Mr. Miller if the I/O model is something that's going to have to be reexamined; it seems to me it does.

Pautzke: While Mr. Miller is getting his thoughts together, I'd just like to go through the schedule. I feel that we have for the analysis on this, since the staff is going to be taken up kicking the moratorium out to public review, too, which is going to take some clean-up, is we essentially have from May 4 through probably the first of June which is a matter of four weeks, 20 to 25 days to do the analysis of your alternatives and in that time we also need to engage dialogue with industry on certain of the parameters and variables in it and so on and get something out by the 3rd or 4th of June for a pre-review and then it has to get to the Council family by the 12th, so that's the kind of time limitation you have to get a good analysis of the ones that you're seriously interested in; I hope you'll take that into consideration as you're looking at all of this.

Hegge: I think I support this motion. I recall, I believe it was the testimony of Dave Fraser, that there are significant differences in the methods of operation and capabilities with smaller vessels for trying to maintain everybody's opportunities during this interim period of inshore-offshore and I think that this segment of the fleet deserves this type of an allocation and protection.

Alverson: Well, Mr. Chairman, I feel that this option is different, it's significantly different in that the sponsors of it have indicated, it puts the harvester in a decision of who or where may deliver more easily as opposed to what you have now. I think there's a fundamental difference between the American High Seas proposal and what we adopted in terms of the decision of the skippers and I think that we need analysis of that option. Now, if it comes down to we don't have time, I don't think there's anything preventing this Council, I don't see anything sacrosanct about August decision time. I think that in August or September we could tell Knauss, hey, we need one more year under your 35% rule for us to do the analysis correct. I don't feel boxed as some members of the Council feel boxed, of having some finalization of this thing done by the August meeting and if this analysis pushed it to September it doesn't bother me if we were able to ask for an extension of the program that we have going into the B season this year and we could ask for that in August, or we could ask for that in June for that matter, but I think a coming apart of the harvesting fleet as testified in front of us; there is not a togetherness as there was back in June and this option plus the options that we've already suggested I think cover the matrix of requests from harvesters and processors and therefore I think it's an appropriate request.

Dyson: I think it's rather late in the game to come in and start another program or another tier of fishing. I remember back in the earlier part of this debate that we turned that down and now it comes back in front of us to muddy up the waters and I feel the same as Joe does, that it takes time for the analysis and I'm not going to vote for it.

Pereyra: With regards to this question of analysis, it would seem to me that if August rolls around and we don't have any analysis completed, we just can't all of a sudden say well, we'll just go ahead and roll over the 35% because in fact, Dr. Knauss said we couldn't do that because of the A season impact and so forth. We have to have some solid analysis and evaluations there to enable us to make any kind of decision at all in August. So, I just think that the degree that we load up the train here to a degree that we're not going to get up the hill in time to see the sunrise, so I think [we] must think very seriously about whether this proposal in fact is going to put so much additional burden that we're going to have slippage and not have a good complete analysis done in time.

Mace: What's the potential. . .what impact would this have on our final decision if we delay the analysis for a year on this particular issue, and run it for '94?

Pennoyer: If you wanted to proceed with a separate plan amendment of some kind to further amend 18-sub-a, or whatever this is, then it wouldn't be on expedited review. You could do that. You could do that in '84 for example if you wanted to try a further plan amendment. That would be a whole new analysis, it would be a whole new plan amendment, but if you want to delay you can't later submit it on an expedited review if you've already submitted something else on expedited review. That funnel doesn't stay open for further iterations on down the line.

Mace: I have some real concerns as Mr. Pereyra does with respect to timing on this and getting a good job done on what we already have on the table so I would prefer doing this by plan amendment the following year if we decide to.

Blum: I think the Council is owed a fairly straight, succinct answer. If we pass this, is this going to make it impossible for that August meeting to be productive on this particular subject, or can we get the analysis done by August so we can have a substantive meeting. Can we get an answer to that, from Clarence or Steve, or both? I think that's a fairly fundamental question that shouldn't be too difficult to answer.

Pautzke: The analysis needs to be done by June, not August, and that's four weeks. Steve, you've been talking to your guys. . .

Pennoyer: Well, I guess the answer I got as I said to you before, was that the people doing just the cost-benefit model, nothing else, think it can be adapted if the information is there which is still a question, that they could do it reasonably quickly. But again, that's not doing something else and it's also not answering how much other social analysis we'd need and so forth. Our time is very constrained between now and the June meeting, very constrained. I guess, Mr. Blum, it's sort of like other questions on bycatch and other things, if that's what you want us to do, it's probably doable. I don't know if it's going to shove something else out of the way or how you would prioritize that when we get to the end of this meeting. So a straight is difficult. It can be done by June. What it does to other tasks I can't tell you because we haven't sat down and scoped out how much is required for that analysis.

Hegge: Maybe if we took a different approach. As I understood you Steve, right now the breakdown is around 20% of the mothership operation, is that correct?

Pennover: How much motherships take, you mean? I thought somebody said 15%.

Pereyra: 12.8%, I believe.

Hegge: In the analysis that will be done, is it possible that we could break that amount out and presented to us as a possible method of allocation? That would limit it somewhat. This American High Seas is a little more involved proposal. It seems that the analysis is going to look at the amount that is taken by motherships anyway, we would have that option at that time or maybe with the review of the motion we could have that option to reserve an amount for them.

Pennoyer: I didn't hear all of your question because I was asking probably the same question of staff. Their opinion is that we probably could do it.

Cotter: Probably?

Pennoyer: Well, until you dig into it you're not going to know for sure.

Cotter: I would like to know for sure. We spent a lot of time over the last couple of years thinking things were going to get done by "x" date and the workload was great and things kept getting put off and we're up against a crunch at this point in time and probably really isn't good enough for me, particularly with all the caveats that you're putting on it and I know as do other Council members around this table that there are still some issues before us at this meeting that some folks feel very strongly ought to receive some analytical review between now and June and a couple of them are bound to get through.

Pennoyer: Mr. Chairman, all I can do is repeat, I think they can do it, I think you should not pass unless you think it's a serious alternative. If you think it's a serious alternative and you think it is really something that you need to evaluate relative to the other alternatives you have on the table to make a decision in August, then you should do it. If you don't, then I think it is an added workload and I don't think you should commission it just to be doing it.

Pereyra: Steve, in coming up with that opinion did you take into consideration that in analyzing the zonal effects we're obviously going to have to be looking at bycatch impacts, looking a marine mammal impacts, local depletion, distribution of fishing, safety issues, you've got certainly some social impact issues that have got to be looked at, the losses in the offshore section, the I/O modelling question I raised, I still think that's an issue that's got to be looked at. When we're talking about an analysis of the split between inshore and offshore there's some environmental issues that I think are becoming important that I think ought to be looked at. I think that if we get everything sort of just heaped on us at the last minute I don't think we're going to be serving the decision-making process very well and that's my concern, that we're going to so overload the system that we're really not going to have a finished product when we get together in June.

Pennoyer: I think Mr. Pereyra's got some excellent points. Again, if you think after the testimony you're heard and your consideration here, that this is a viable alternative that is a potentially good resolution to the problem you're trying to address, then you probably ought to say go ahead and do it. If you think it's pretty questionable, you originally rejected this alternative, you originally chose as your primary alternative the direct allocation inshore and offshore; if you've heard anything to change your mind on that, if you think it needs to be analyzed, if you think it's something you seriously may consider adopting, then you should tell us to go ahead and do it and I think recognizing that it's going to force something else out of the way. But if you're not serious about it, then I really don't think you should.

Pautzke: I think, Mr. Pennoyer, when you say it's forcing something else out of the way, it's not necessarily that it's forcing a major discrete task out of the way like the moratorium or the research plan, or another amendment package. What it's forcing out of the way is you're taking time of your analysts to concentrate on a whole nother range of your elements there that takes away from a more thorough consideration of the ones that you think maybe are more serious contenders for your consideration when you get to the June and the August meeting. It means that an analyst cannot chase down a particular parameter as much as he would have if he had more time to do it; he can't give you maybe the most ironclad analysis that you would like because he diluted his efforts out over more alternatives and I go back to what Steve said, if you think it's a serious contender for your consideration, serious contender in June and then in August, fine, then it's very important to analyze, but I think if it's not you should concentrate your analysts' attention on the most serious contenders so you have the most ironclad analysis you can get to forward to the Secretary.

Alverson: Call for the question.

Lauber: Call the roll. We're voting on Mr. Alverson's amendment which is the American High Seas proposal.

Pautzke:	Cotter	No
	Dyson	No
	Hegge	Yes
	Mace	No
	Mitchell	Yes
	Pennoyer	No
	Pereyra	No
	Krygier	No
	Alverson	Yes

Blum Lauber No

No

Fails.

Lauber: All right, do we have anything further or this or do we move on to the bycatch amendment?

Blum: I don't have a motion but I would like to have the Council to have an understanding before we leave today what it is we have said to staff, when we say we want the things that we have approved to be analyzed. Are we saying we want input-output analysis, cost-benefit analysis, analysis on impacts on marine mammals, on conservation, or only the cost-benefit analysis. Since Steve isn't paying any attention, I'm just beating my gums.

#### [misc comments]

Blum: What have we just said to staff when we said analyze the four things I believe it is we have passed for analysis—only the cost-benefit analysis, are we going to do social analysis, are we going to do input-output analysis, are we going to test these things against marine mammal protection, against conservation of the resource, or what? So that when we come back together in June and again in August none of us are overly surprised at what got left out or what got put in.

Lauber: Well, I presume it's the full range, within the capabilities and time available in personnel and so forth, all of the above.

Blum: Is that correct, Clarence?

Pautzke: That's my feeling on it; I think that we have to pass the litmus test of Executive Order 12291, the Paperwork Reduction Act, the Regulatory Flex Act, and all other applicable, all plus the Magnuson Act and those studies will have to be there to the extent that we're capable of doing them on the basis of available data and time.

Pennoyer: Yes, Mr. Chairman, I think we have to do, as Clarence said, the RIR and IRFA. You don't have to do another NEPA document, so whatever that entails you would not have to deal with. We still have to look at most of the items you've suggested. Now some of them were looked at in the original proposal and the percentage change may not make that much difference because we did draw some conclusions on some of the environmental aspects, for example, that I think would probably work over the range, but I think there's still some other questions and I think Mr. Blum's response was correct, although he covered the mega-type things. I think there's still some questions as to how you want us to handle the discussions we had on the cost-benefit analysis, for example;

team assumptions, we had recommendations for industry groups, we had a lot of other things that were discussed and I'm not clear on how you want to proceed on that. Right now what we would proceed with, I presume would be our best job at doing the cost-benefit analysis and . ?. . it with whatever new information was made available to us, but you haven't discussed that. I don't know if you want to or not, but if you don't my presumption is we go ahead and assemble a team, Clarence and I, to do this analysis and we would do all the items that need to go in any normal Magnuson Act amendment.

Pautzke: Steve, did you say we didn't need to do another NEPA one, did I hear you say that?

Lindeman: Mr. Chairman, since the operational area was analyzed in the final SEIS, what you could do, or NMFS would get a categorical exclusion saying that the impacts had already been analyzed in the final SEIS and unless there was new information or new impacts you wouldn't have to prepare an EIS or EA.

Pennoyer: I think the assumptions on the timetable were that you would not have to. If you have to do another NEPA document, assemble it and go out to the public review on a NEPA document, put it back through the EPA process and so forth, you're not talking about the timetable we've outlined.

Pautzke: Mr. Chairman, may I ask one more question, just maybe for Council direction? We have a cost-benefit analysis which not many have seen, it's been around for a short period of time, and I was wondering, do you think it would be good for the Council to request the industry to comment on that to us, for instance, in a very accelerated time, say within the next week or two so that the analysts can have the benefit of industry input and comment on that, kind of a reality check on it from your standpoint so that we could see what parameters they might have substituted, values, and what their concerns were, and that would probably help us out, rather than, and I mean from all sectors from the industry, just an informal comment to the Council so we would have it for the staff to work into their analysis?

Lauber: Well, you may not have to ask for those, you may get some of them, but I think it would probably be an excellent idea, particularly if there's a timeframe to it, it would be more helpful to you. Is there any objection to asking for comments on the cost-benefit analysis that we just received. I know some have it, but. . . and do this on an expedited basis. There was some call for a peer review but I don't think that's what we're talking about here; we're talking about a critique by interested parties on all sides.

Pautzke: And I mean very quickly, too, say by May 1st, so we can have the benefit as we launch the next phase of the analysis.

Lauber: Is there any objection to doing that? Hearing none, let's do it.

Alverson: I didn't hear a complete answer to Joe's question on the series of things that would be analyzed. I heard an answer "could"; I didn't hear the answer "we will be doing these things," and then I heard some debates on the exclusion of things. What sort breadth of analysis are we going to be given over these things? Are we going to be giving the ones that Joe asked or are we going to be asking for an exclusion of those things? . . .I didn't feel we will, I said we could, Lisa said we "could" do something and I want to know what we're going to do.

Pennoyer: Jay Ginter is going to describe for you the items that go into an RIR and the type of things we'd have to do for one, not for an EIS but for an RIR.

Ginter: Mr. Chairman, we're not contemplating an environmental impact statement or any kind of environmental document here. We're contemplating a regulatory impact review which is going to be basically the revised benefit-cost analysis, not a revised benefit-cost analysis, but <u>a</u> benefit-cost analysis that would be an analysis of the alternatives compared to the 1991 fishery as a base year.

Alverson: Well, Mr. Chairman, I heard in our previous debate that lost 8 to 3 that if that is all we're going to analyze, that the American High Seas thing could be done rather easily. And then there was some suggestion all this other hocus-pocus was going to be done and we weren't going to have time and now I understand we're back to just doing a review of the cost-benefit analysis, so. . .someone's not playing a straight game here.

Pautzke: Well, I told you what I thought we were doing and I don't think it is necessarily just the benefit-cost analysis that you have in the new document. There was a whole series of other social analysis of the benefits and costs, there was the input-output analysis, all those things play into the analysis that I see would be brought to you under the regulatory impact review, it is not just the benefit-cost analysis, that would be part of it.

Blum: Mr. Chairman, this is the very reason I raised the question. Dr. Knauss said that you've got a cost-benefit analysis that shows the cost to the country is too great for the benefits that you have identified. So we have been asked to either come up with more benefits or look at some other options that reduced the cost in a lay person's terms. If all we're going to get out National Marine Fisheries Service is a cost-benefit analysis we don't have the social impact, we don't have the environmental considerations, I think we have basically wasted the industry's, our staff's and our time for the period between now and June and August and we can't do that.

Pennoyer: Mr. Blum, I concur with you. I think Jay gave you a little short shrift on that. Would you mind telling everything that goes in an RIR because we're are going to have to do the social. ..we did the social impact analysis once, I'm not sure how much additional social we have to do, but you're going to have to dredge up from that social impact analysis the pertinent factors affecting these proposals, you're going to have to re-state them, you're going to have to write through the document. You can't just hand somebody a c-b analysis and say, 'we're there, let's quit,'; you're going to have to put it in the framework of the impacts of your various proposals and that includes the social impacts, so I think what Jay was getting to was the heart of a lot of the work, but I think you're going to have to do the rest of it as well.

Ginter: Mr. Chairman, I'm sorry if I mislead you, but basically that's correct. The focus, as Mr. Pennoyer said, is on the economic efficiency aspect, however, we need to look at other economic factors as wells, the distribution of those benefits and costs are certainly part of it; the social factors, if there's a negative economic c-b ratio, then of course social reasons, biological reasons, other factors, need to be taken into consideration and need to be review and discussed in the document, so the document would be more comprehensive than just purely and simply a benefit cost analysis, but it's my understanding that the benefit-cost analysis certainly would be a key part of it.

Pereyra: I think this discussion we're having is very useful, I think it underscores the concerns I expressed with regard to the previous motion about the work that's going to have to be done to put this package together and have it be a useful document and complete as possible by the time we meeting in June. In that regard, one of the questions I had is, where does one find the EIS in

regards to the zone? We're going to be doing zonal considerations here in various options, where does one find that?

Pennoyer: Mr. Chairman, it's addressed in the final SEIS; the zone is in there. Now you're going to evaluate the effect of a zone or no zone and the impact on the fishery, . . .

Pereyra: It's a pretty thin analysis, I mean there are a few paragraphs in there but I don't think you could slip that by as an EIS for the zone with the various impacts that have been identified, particularly now that we don't have Bogoslof. Before, we had Bogoslof, now we don't have Bogoslof, and that's had some very major distributional impacts with regards to whether that zone is valid or not; we have a whole changing environment that we're looking at with regards to regulations that have gone in, to the marine mammal situation now, I mean I...

Pennoyer: Given this year's conduct of fisheries we put in place the 10- and 20-mile closures and our justification was that was going to take care of a current fisheries situation which didn't have an operational area in place, by the way, but take care of the sea lion problem. Now you're going to have to re-look at that obviously for next year, but that was the assumption; we did put those measures in place and I guess the question of having one or not having one is more. . .to me on whether it was going to affect the allocation that you were doing rather than the environment, because we already assumed having one did not in the SEIS did not affect the environment. Now if you're saying it does and the SEIS was wrong, that's another question.

Pereyra: I've been wrong before, so. . .

Alverson: Clarence, could you summarize where we're at?

Pautzke: We're going to do an analysis which is going to look at the requirements of 12291, the Reg Flex Act and all the other things, except there will be no new EA or EIS as far as I know.

Cotter: I'd like to ask Mr. Miller a question if possible. We have had some considerable debate, as you're aware, regarding the appropriate PRRs and we've also talked about discards and whether or not they're a cost or not or what have you. Is it possible in your model to do one of two things. Either make two runs or to in essence develop a PRR that reflects the total catch by the entity, including discards, where the PRR would be based upon the amount of product produced versus the amount of the fish harvested?

Mort Miller: Yes, in what we did, we can make various adjustments in these assumptions and crank out some new answers, sure. If it's spelled out clearly so we could determine just exactly what the issues are. . .where you want to go with it, then we could crank in those various assumptions in the model, yes.

Cotter: Is it very difficult to do that, do you have a model and all you need to do is to modify a variable?

Miller: That's right.

Cotter: I would appreciate it if one of the runs you would do would use a PRR rate that is based upon the ratio of the amount of product produced as compared to the total amount of the fish harvest.

Blum: Mr. Chairman, is that a motion?

Cotter: No, it's a request.

Blum: ...? individual Council members requesting analysis components?

Alverson: The request, Larry, may be appropriate but I think we have to discuss it in the context of timing as we did the other options of the request.

Cotter: I don't see this as an option, Mr. Chairman. I can make it a motion, but I think that it is not unusual for members to say, 'Mr. Pennoyer, could you look at this. . .'

Alverson: No, it's not, but let's have a discussion of this, Larry, and what sort of time frame something like that is going to generate.

Miller: Well, if we. . .new calculations, I'd say a couple of weeks to do it, yeah.

Cotter: A couple of weeks in addition, or. . .

Miller: No, along with some other things. It wouldn't be a tremendous amount of additional work.

Blum: Is information readily available or are we going to have to go out and do an industry survey?

Cotter: Mr. Chairman, I assume and this may be the problem, but I'll tell you my assumption. I assume that we have product mix, and that we have total catch, and that we have discards. We have reported discards and we have observer-reported discards and I assume that it would take a look at the amount of surimi produced, for instance in the A season this year. the amount of total catch and generate your PRR from that for both sectors. And if that information is available I wouldn't think it would be a big deal; if it's not available then my request may not be possible and then I would pull it back.

Miller: If the information is available, then it's just a short amount of time to run the new numbers through the model.

Pennoyer: Larry, I'm sorry, I was discussing the impact analysis with Clarence, but are you suggesting the total catch and the total product and somehow combine them to come up with a realistic PRR? We don't have an independent estimate of the total offshore catch. We're semi-dependent on PRRs.

Cotter: Well, during the A season didn't you use your best-blend approach, the observers' observations coupled with the skippers. . .

Pennoyer: Part of that is still PRR dependent, it's not totally independent. We don't have a totally independent estimate of the catch; the observer doesn't look at the whole catch.

Alverson: Steve, do you have data in the columns that Larry has identified regardless of . . .

Pennoyer: We have an estimate, it's not a totally independent estimate; it's not like going out and doing a independent survey which I haven't figured how you do yet anyway, and coming up with a PRR from industry records on what the actual PRRs were by. . .

Cotter: Well, I'm not looking for you to go do some stuff that you can't do. The other way to do it, I guess, would be to use the PRR assumption that you have and convert that to round weight, which you apparently do to estimate the catch, and add to it the reported discards, or your observed discards, whichever one, to get the total catch, and then divide your product back in and then get your new PRR and use that.

Pennoyer: When Mr. Miller did the original analysis he ran it with several different PRR assumptions and we looked at the output from those assumptions and I will agree with you now it's hard to tell which assumption is actually correct because we don't know what the PRR should be. Mr. Miller, is it a problem to run it with varying assumptions?

Miller: No, if we're just changing the PRR, we're talking about an hour's work or something like that.

Cotter: What I'm merely trying to do is to take a look at a PRR that is reflective of product produced relative to total catch. And if it is possible to get at that through some mechanism where there are reliable numbers, then I would hope that that could be done. If it is not possible, then I don't expect anybody to try and do something that they can't realistically or reasonably can't do.

Alverson: Steve, does that satisfy your workload concerns with Larry's request?

Pennoyer: Mr. Cotter, your suggestion was just to look at our estimate of total catch, total product, back divide and see how we come out?

Cotter: And then use that as your PRR estimate . . .

Pennoyer: I guess we could do that; I would still recommend we look at a range of assumptions of PRRs in the process so when we come back in June the Council and public can see how they affect the analysis and in the meantime try and do some of the things you're suggesting to see if we can come up with some better estimate. We haven't found a way of doing it yet that we're satisfied with.

Cotter: O.K., Mr. Chairman, lastly, I just want to make it clear that I am not attempting to have you guys to enormous amounts of work and stress the system. If it's not practical or possible, I would hope that you would not do that.

Pennoyer: We have a workshop coming up on the best blend and how we're going to look at the B season and in that process we'll look at what we can stretch the observer data to and how we can do that. I still say in this analysis the team will probably want to look at a range of PRRs and see how they affect the outcome.

Blum: Two points. Larry, in making that request, I hope you understand as I think I do you're going to be bringing in a bunch more assumptions which National Marine Fisheries Service and others will be making and every time we bring in these assumptions we're going to raise the level of debate as to whether those were the valid assumptions or not, so I'm not sure what you're going to get clarified. I do know that by taking the direction you have taken we're going to increase the level of debate. In that same arena, one of the issues that was continually brought up the last couple of days, was let's only look at the producer side. Will you be able to look at the consumer side of all of these options and have that issue put to rest, or will that be an issue that we'll be looking at in June and August as well?

Miller: I don't see that we could do that by June, no.

Blum: I would wonder, Mr. Chairman, is the Council going to be satisfied with a product that doesn't include the consumer side of the issue, or are we going to be wrapped in endless debate in the deficiency of the analysis because of that point?

Pereyra: In relation to Mr. Blum's comment, I only speak for myself in this regard. I can appreciate the difficulty in trying to do the consumer side of the analysis. Whether or not you have the data to do it, I don't know, but if it was possible to have some sort of discussion, some sort of a qualitative discussion of what the potential biases may or may not be, to the results from the consumer side I think that would be helpful and maybe that's something that's possible as an alternative.

Cotter: I would concur with that. Earlier I had asked Mr. Pennoyer whether or not the absence of a consumer surplus end on this model would fatally affect the Secretary's ability to make a decision and the answer was, use the best information you have. I think Mr. Blum's point is an excellent one. I think as Mr. Pereyra said, that we ought to have a qualitative report relating to consumer surplus because I can guarantee you that people are going to start making those assumptions on their own and some guidance would be very helpful, I think.

Alverson: Mr. Pennoyer, what sort of time frame is that going to add to the analysis?

Pennoyer: I'd have to ask Mr. Miller, what would a qualitative assessment of consumer surplus be? How much could we do, I mean we're looking at a June time frame.

Miller: Well, I'm still a little hesitant to commit us to do that. Of course, we have pretty much leeway in a qualitative assessment. We could look at it in a theoretical framework and provide some assumptions on that: 'if this occurs, this will be the case;' and 'on one hand and on the other hand.' If that's helpful, we can do; but if it's more confusing I don't know whether we should.

Alverson: I guess the question is, 'is it doable?' and is it going to be of utility once we get it, or is it just going to add a new level of confusion to the Council.

Miller: I suspect it might become a little misleading because we get into all these propositions about holding all things equal so we have a case and we might lapse into a lot of economic jargon if we got into that without some hard numbers and I don't know how helpful that would be. Over my lifetime I've taken a lot of flak on this kind of jargon, so. . .

Mace: It might be dangerous to leave this outfit alone while the chairman's out of the room, we're digging ourselves into a deeper hole, I think. I'd like to make a few comments for the record and that's what we're doing here this afternoon. We as a Council have attempted to outline some alternatives to assessed between now and June and we've been very concerned about the timing and the quality of the product and we've had one proposal, the American High Seas proposal came in and in some people's mind it had some merit, but represented a third segment of the industry which could have complicated our analysis and in my view at least, I don't know about the rest of the Council members, I was very concerned about the impact this would have on the quality of our analysis. We have to respond to Dr. Knauss' concerns and this is what we've been attempting to do, trying to nail down all these segments that we feel needs to be covered. I think we've given the necessary direction to the staff. I think that we've attempted to avoid overloading them, at least I have and I'm sure the rest of the Council members have, and I'm hopeful and I'm quite confident that come the August meeting we'll be able to lock in and really nail this down. We've had one

year's experience and it's a very tentative type of thing and I think we have build on that one year's experience and go ahead and document the shortages that have been pointed out to us.

Alverson: Do we have any further request to do a qualitative analysis of consumer surplus level? If not, does that take us to the bycatch section to this, or do we have more on this agenda item?

Pereyra: If I could I'd like to revisit my concern about the operational area. I went back through the SEIS and, granted it's a very cursory skim through, but the only thing I can find is in Section 3.4.6 there's about one page that's dedicated to any sort of qualitative discussion of potential environmental effects on the operational area. There's no, I would say, comprehensive look at that and I guess that's where my concern lies. This is a very significant issue that's come before us. There are folks that are expressing concern about the way it's been configured and changes in the Bogoslof fishery and so forth and I just feel that if we're going to be able to make an informed decision, granted it's going to have a lot of quantitative analysis, but if we're going to make an informed decision I think we need to have that specific issue looked at.

Pennoyer: Mr. Pereyra, if I implied to you we wouldn't take a good look at that since you've identified not having an option in all these alternatives, I was not correct. I did not mean to lead you into that idea. We're looking at the operational question of the allocation, the operation of the fleet, with and without a CVOA, or whatever we're going to call it, and my comment had to do with the need for a NEPA document, not with the degree of analysis we're going to have to do. We're going to have to look at the socio-economic, operational impacts of having or not having the area and if there's any new information that we come across, then it might require some type of NEPA document, if there's any new information. So, I was not implying it's going to get a one-sentence, once-over-lightly; you asked for an analysis both with and without it and we're going to have to look at that.

Pereyra: Thank you.

Lauber: And now can we move to item 'c' under bycatch on inshore-offshore?

[on to that agenda item]

Transcription time: 7.24 hours

Transcription time: 4/30 8:23am

8:55am 9:11am 9:59am 10:16am 10:32am 12:22pm 12:35pm 12:43pm 1:21pm 1:30pm 1:39pm 2:03pm 2:38pm 2:47pm

3:12pm

3.53 hours

Transcription time: 5/1 8:28am

8:55am 9:26am 9:57am 10:03am 10:19am 10:25am 11:17am 11:35am 11:58am

11:58an 1:26pm 2:06pm

3.1 hours

Transcription time: 5/4 8:54am

<u>9:37am</u>

.61 hours

Total Transcriptions time: 7.24 hours

# A COST-BENEFIT ANALYSIS OF POLLOCK AND COD OUOTA ALLOCATIONS IN THE BERING SEA/ALEUTIAN ISLANDS AND GULF OF ALASKA GROUNDFISH FISHERIES

# FINAL REPORT

# THE NMFS ECONOMICS SPECIAL STUDIES TEAM\* WASHINGTON, D.C. APRIL 14, 1992

# \*STUDY TEAM AND AFFILIATION:

# NATIONAL MARINE FISHERIES SERVICE

Morton Miller Samuel Herrick Dale Squires John Walden

# **CONSULTANTS**

Douglas Lipton (University of Maryland)
Ivar Strand (University of Maryland)

#### **EXECUTIVE SUMMARY**

The North Pacific Fishery Management Council (NPFMC) drafted a proposal to: (1) allocate respective shares of the allowable catch (TAC) of pollock and cod catch in the Alaska groundfish fisheries to the offshore and inshore sectors of the industry and (2) reserve a portion of the TAC for Western Alaska community development. The proposed action would amend the Fishery Management Plans for the Groundfish Fishery in the Bering Sea/Aleutian Islands (BSAI) and Gulf of Alaska (GOA) areas and would be in effect through 1995.

In proposing the allocations, the Council was responding to a claim by the inshore sector that its access to the TAC is in danger of being "preempted" by a large and growing offshore sector. Concern was raised after instances in which offshore vessels, capable of both catching and processing large quantities of fish, moved into areas where the inshore fleet normally operates. The inshore fleet is made up of smaller craft that serve shore-based processing plants.

The allocations would significantly alter the proportion of the TAC taken by each sector; the offshore sector's share would be lower, the inshore sector's higher. The offshore operators share of pollock in the BSAI area, for example, would be capped at 55% of the TAC (exclusive of the reserve component), whereas in 1990-91 their share in this fishery was above 75%. Concurrently, the inshore sector would gain an opportunity to nearly double its percentage share of BSAI pollock to 45% percent. The Alaska community quota would be half of the 50% reserve, or 7.5% of the overall TAC. In the (GOA), where the offshore operators have been minor players, the proposed amendment grants the inshore sector exclusive rights to the pollock TAC, along with 90 percent of the cod allowance. Pollock

and cod landings in the EEZ off Alaska in 1990 were worth an estimated \$313 million in raw unprocessed fish value.

This paper reports the results of a cost-benefit (C-B) analysis which assesses the net national economic benefits resulting from the proposed allocations. A prior analysis by the Council, which is included in the Supplemental Environmental Impact Statement, fell short of providing enough information to assess whether the nation was better, or worse off, in terms of economic efficiency, although statutory and administrative requirements highlight efficiency as a criterion for utilization of fishery resources and stress the need to analyze the extent to which net benefits are affected by a proposed action. The Council's analysis was based on application of a regional input-output (I-O) model which is designed to measure changes in economic activity (e.g. employment and income) but does not address the issue of economic efficiency. Cost-benefit analysis, on the other hand, is designed to examine and measure the factors that affect the efficient allocation of resources and determine the extent to which a public policy yields net economic benefits, or losses, for society as a whole. It is widely recognized as the appropriate method for analyzing public sector decisions.

The cost-benefit analysis in this report focused on changes in producer surplus that would occur under the new allocation system. Results show a large reduction in economic benefits related to offshore operations and gains for the inshore sector. The inshore gains, however, do not compensate adequately for the offshore losses. The proposed action, therefore, results in significant losses in net benefits that society realizes from the Alaska groundfish resources. According to the analysis, the net present value of producer rents (or net earnings) in the offshore sector is reduced by \$619 million over the life of the allocations

program. The inshore sector realizes a \$438 million increase in producer rents. The difference represents a \$181 million net loss to society. A risk analysis, done to take into account the uncertainty of key variables, indicated that there is almost zero probability that the net present value of net benefits would be positive. In the Monte Carlo simulations, losses ranged from a possible \$15 million up to \$350 million, but the expected value was \$181 million.

Vessel crews in both sectors are paid on a share basis and are thus directly affected by the changes in producer rents. Offshore crews lose \$161 million while crews in the inshore fleet gain \$116 million. The remaining \$45 million is either a transfer from the offshore crews to inshore plant owners or part of the efficiency loss.

The above results do not include effects from the Community Development Quota.

Under an assumption that this quota would be added to the designated inshore allocation, the loss in benefits increases from \$181 million to \$209 million. This would be a minimum estimate of the loss. If in order to qualify for the quota, new processing capacity is built, the investment in that new capacity must be counted as a cost to the inshore sector and be added to the \$209 million loss.

The cost-benefit analysis demonstrates that, in terms of economic efficiency, the offshore sector has a decided advantage, notwithstanding a less favorable achievement in product utilization (i.e. discards and product recovery rate). The net economic losses that result from diverting offshore pollock production to shore-based operators reflects the capability (under present technology) of the offshore sector to convert the resource into a higher valued product at lower relative costs. In effect, the shift in production imposed by

the allocations erodes the value the pollock stocks. Society loses a significant number of dollars that could otherwise be put to productive alternative uses.

# I. INTRODUCTION

A proposal to allocate shares of the total allowable catch (TAC) of pollock and cod in Alaska groundfish fisheries to designated user sectors was submitted by the North Pacific Fishery Management Council (NPFMC) to the Department of Commerce (DOC), for approval and implementation. The proposal, submitted in September, 1991, was contained in amendments 18 and 23 to the Fishery Management Plans (FMP's) for the Groundfish Fishery of the Bering Sea and Aleutian Islands (BSAI) and the Gulf of Alaska (GOA). These fisheries are managed under authority of the Magnuson Fishery Conservation and Management Act (MFCMA) which requires fisheries in the U.S. Exclusive Economic Zone (EEZ) to be managed for the benefit of the nation as a whole.

The allocations, as proposed, would significantly alter the proportion of the TAC taken by each sector; the offshore sector's share would be lower, the inshore sector's higher. In addition, a portion of the allowable catch would be reserved for Western Alaska community development (Community Development Quota). Under existing regulations the TAC had been managed as a common property resource available on a "first come" basis with no specific allocations made between sectors. This report assesses the net national economic benefits that would accrue from the proposed allocations from the perspective of a

<sup>&</sup>lt;sup>1</sup>Note: A decision on the Council's proposal was made by The Under Secretary for Oceans and Atmospheres, Dr. John A. Knauss, on March 4, 1992. The proposal was approved in part, and the remainder was remanded to the Council for further consideration. (See U.S. Department of Commerce News, NOAA 92-11, 3/4/92). This report was prepared to address the allocation and benefit issues associated with the original Council proposal and was made available in draft form to the Under Secretary prior to the decision. This final report is a refined version of the earlier draft.

cost-benefit (C-B) analysis.

An economic impact analysis of the proposal appears in the Supplementary

Environmental Impact Statement (SEIS) prepared by the Council, as required by regulatory

procedures. The analysis was based on the application of a regional input-output (I-O) model

which was used to estimate the impact of the proposed action on sales, employment and

income in the geographical regions identified with each of the affected industry sectors.

Questions of economic efficiency and net national benefits, however, were not adequately

addressed in the SEIS. Impacts, or changes in economic activity, resulting from the

amendments do not reveal whether the regulatory action leaves the nation better or worse off

as a result, in terms of economic efficiency and net national benefits.

Input-Output analysis is designed principally to measure economic activity as defined by volume of revenue, income and employment where one person's, or group's, revenues represent others' expenditures. I-O is useful for identifying interindustry transactions and tracing the flow and multiplier effects of revenues and expenditures in an economic system, but it does not measure gains or losses to the people affected. Cost-benefit (C-B) analysis, on the other hand, treats costs and revenues in a way that addresses economic efficiency and allows estimates to be made of net economic gains or losses, for society and for private enterprises. For these reasons, cost-benefit analysis is the preferred and more widely used technique for analyzing economic results of national public investment and policy.

Originally, the NPFMC had planned to develop a computer model<sup>2</sup> to simulate the

<sup>&</sup>lt;sup>2</sup>The model was to employ the technique of linear programming as a means of predicting economic performance.

economic performance of the two industry sectors with and without the proposed allocations. The results of the model would then be used to calculate the net national economic benefits of the proposal. The model would also generate results which could be used as inputs to an I-O model which, in turn, would compute the distributional impacts of the proposed alternatives. The original model was never completed, and no estimates of net national benefits were presented in the SEIS. The omission was inconsistent with statutory and administrative requirements that decisions on fishery management actions take net national economic benefits into account. These actions must conform to national standards that highlight efficiency as a criterion for utilization of fishery resources and that stress the need for a plan (or amendments) to analyze the extent to which net benefits are affected by the action(s). Similarly, Executive Order 12291 stipulates that regulations should aim at maximizing net benefits for society, and that "rules be developed with a cost/benefit approach when possible."

In this report, we respond to the need for an examination of the economic effects of the proposed action in light of its effect on economic efficiency and net national benefits, as mandated by statutory and administrative requirements. Quantitative estimates of net benefits are developed through a cost-benefit (C-B) approach which uses the best available data and standard economic techniques, and applies a level of sophistication appropriate to the extent and quality of the data available. Data limitations preclude examination of all possible

<sup>&</sup>lt;sup>3</sup>50 CFR Part 602 (602.15) Guidelines for Fishery Management Plans; Final Rule. Federal Register. July 24, 1989.

<sup>&</sup>lt;sup>4</sup>50 CFR Part 604 (604.4b) Federal Register. Vol. 54, No. 10. January 17, 1989.

effects, but where omissions occur we raise the issues and suggest how, if measured, they would affect our cost-benefit analysis.

The report draws principally on existing literature supplemented by information provided in public comments on the amendment and by National Marine Fisheries Service (NMFS) staff. Following the introduction, Section II of the report points out relevant economic issues; Section III discusses concepts and uses of cost-benefit analysis; Section IV outlines the analysis approach and methods; and Section V presents the results of the analysis. Appendix A shows results from application of our basic model to various scenarios proposed by and National Oceanic and Atmospherice Administration (NOAA) managers. Appendix B provides a more complete discussion of cost-benefit analysis and comments on the uses of input-output analysis to clarify methodological issues. Appendix C presents the detailed discussion of costs and returns for the representative inshore harvesters and processors.

#### II. KEY ECONOMIC ISSUES

The inshore sector of the Alaska groundfish industry includes shore-based processing plants and the harvesting vessels that deliver their catches to these plants. Offshore, the industry consists of large factory vessels which both catch and process fish; motherships, which are seaborne processing plants; and trawlers and other vessels which deliver their catches to the at-sea processing vessels.

The proposed action responds to a claim by the inshore sector that its access to the TAC is in danger of being "preempted" by a large and growing offshore sector. The issue

surfaced in 1989 when, after a relatively short pollock season in the Bering Sea, several large factory trawlers moved into the Gulf of Alaska and took a portion of the pollock allowable catch that the shore-based sector was planning to use over the year. Incentives exist for further incursions of offshore fleets into areas closer to shore. The Alaska offshore fleet has much more capacity than needed to take the allowable catch, and given a strong market environment, the fleet could expand as long as access to the fishery remains open.

The proposed allocation would likely lead to a significant decline in production for the offshore sector, whereas shore-based production would increase. Offshore operators accounted for over 80 percent of pollock taken in the BSAI fishery in 1990, but, under the proposed rules, their share would be capped at 55 percent in three years. At the same time, the inshore sector would be guaranteed an opportunity to increase its share of BSAI pollock from 20 percent to 45 percent. Western Alaska communities would be allocated up to 7.5 percent of the TAC. Pollock from the BSAI fisheries is the dominant groundfish species in the EEZ and accounts for close to 75 percent of total Alaska groundfish landings. In the GOA, the proposed amendment grants the inshore sector exclusive rights to the pollock TAC, along with 90 percent of the cod allowance. In 1990, offshore operators took 15 percent of the pollock TAC in the GOA, and 23 percent of cod.

Access to the BSAI and GOA pollock and Pacific cod resources represents an

<sup>&</sup>lt;sup>5</sup>NPFMC. Draft Supplemental Environmental Impact Statement and RIR/IRFA Of Proposed Inshore/Offshore Allocation Alternatives (Amendment 18/23) To The Fishery Management Plans For The Groundfish Fishery of the Bering Sea and Aleutian Islands And The Gulf of Alaska. Page 1-4. September 19, 1991.

economic opportunity of considerable value.<sup>6</sup> Pollock and cod landings in the EEZ off
Alaska in 1990 were worth an estimated \$313 million ex-vessel, and accounted for 75 percent
of the value of all Alaska groundfish landings. Recent price increases in the world market
for surimi--a major by-product of pollock--indicate a strong profit potential for pollock
operations in the EEZ. (BANR, 1991). The price increases followed a decline in pollock
landings in an area of the Bering Sea outside the EEZ, known as the "donut hole", where a
large international pollock fishery supports operations by Japan and other countries.

Justification for approval or disapproval of the proposed action, from the perspective of economic efficiency and net national benefits, requires the type of comprehensive and systematic inquiry that is expected in a cost-benefit analysis. Cost-benefit provides quantitative results, and perhaps equally important for decision making, it promotes a better understanding of the economic issues. Listed below are important issues that either influence the results of the cost-benefit analysis in this report, or should be taken into account in evaluation of the results. We have listed these issues separately although, in reality, they are interdependent.

#### A. Preemption

The NPFMC defined the resource allocation problem as one industry sector facing the risk of preemption by another. There was concern, based on prior incidents, that mothership operations would expand into the Gulf of Alaska where catcher vessels that serve the shore-

<sup>&</sup>lt;sup>6</sup>As evidence of the potential value of access to Alaska pollock stocks, we note that numerous Japanese and American vessels are paying fees for access to pollock stocks in the Russian exclusive zone.

based plants usually operate. There was also concern that offshore operations would continue to expand in the Bering Sea/Aleutian Island area and take increasing shares of a fixed quota.

The preemption issue is not uncommon in an open-access fishery where user groups compete for shares of a set quota. With enough fishing power and expertise, any new entrant has an opportunity to preempt an existing participant. Preemption is part and parcel of an open access fishery managed with an unallocated quota (Christy, 1972). Every fisherman's catch preempts any other fisherman from catching that portion of the quota. Typically, fishermen form into groups, based on gear, geographical location, etc., in an attemp to eliminate the preemptive activity of other groups. This is precisely the case in the inshore-offshore controversy where one sector claims preemption by the other.

The proposed amendments would be imposed on a system where olympic style fishing is characteristic. The amendments would not eliminate olympic fishing, and therefore are not likely to do away with the problem of preemption. The designated quota shares, in effect, define two olympic style fisheries, one offshore and one inshore. Within each of those areas, one group (however delineated) aims to preempt the other. That is, without limitations on effort, the preemption conditions will remain. Our analysis does not directly address preemption which is, in effect, a definitional issue. (One offshore fishermen's association, for example has asserted that foreign-owned processing firms in Alaska have preempted the harvest of the fishermen it represents). We will present, however, the distributional effects

<sup>&</sup>lt;sup>7</sup>Olympic fishing describes situations where participants compete in a first come, first serve manner for access and rights to harvest all available quota.

<sup>&</sup>lt;sup>8</sup>Letter of American Independent Fishermen to NMFS commenting on proposed (continued...)

of the proposed amendments and indicate the magnitude of gains/losses in the inshore and offshore sectors.

#### B. Economic Rents

The prospect of economic rents is the principal stimulus for investment in the Alaska groundfish fishery. These rents are defined as financial returns to the owners of boats, crew and processing firms over what these resource users could earn elsewhere<sup>9</sup>. In this openaccess fishery, as in any industry, if rents are greater then zero, new investment will occur until the prospects for earning rents disappears. In most industries new investment typically decreases rents because the resulting increased production can lower the price for the final product. In an open-access fishery, however, rents for current participants and new entrants are lowered because new investment decreases the average catch per vessel and increases the cost of harvesting fish. Prices may not fall because production in an open-access quota regulated fishery does not increase, despite added capacity.

The quest for economic rents and the outcome is seen in the evolution of U.S. involvement in the Alaskan groundfish industry. Until 1981, nearly all commercial fishing and processing in the Alaska groundfish fisheries were carried out by foreign fleets. An "Americanization" policy was then adopted with an aim to eliminate foreign fishing in the

<sup>&</sup>lt;sup>8</sup>(...continued) Amendments 18/23, January 31, 1992.

<sup>&</sup>lt;sup>9</sup>See Just, Hueth and Schmitz, 1982. <u>Applied Welfare Economics and Public Policy.</u> Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632.

EEZ. U.S. operators were given preferential rights in the zone and initially engaged in extensive joint venture operations with foreign processing vessels in the Alaska groundfish fisheries. At a later stage, U.S. vessels with processing capability joined the fleet, and shore-based processing facilities were built. Foreign fishing was eliminated by 1988 and the last recorded foreign processing was in 1990.

The positive response by investors to "Americanization" reflected expectations that above normal profits or rents would be available. The buildup of investment in the Alaska groundfish fishery proceeded rapidly and reached a stage where capacity to produce exceeded limits that the resource could support.

With an increasing number of producing units competing for a finite stock of fish, prospects for capturing rents in a fishery diminish as productivity drops and costs increase. Expansion will eventually come to a halt unless compensating factors intervene. In the case of Alaska groundfish, favorable prices continue to encourage expansion. With supplies of pollock in world markets threatened by reduced stocks and lower catches of pollock in international waters in the "Donut Hole" area of the Bering Sea, prices have increased sharply, which has benefitted the U. S. industry. Pollock stocks in the western or EEZ portion of the Bering Sea have been relatively stable (although fully utilized)<sup>10</sup>, and the surge in prices has the potential to contribute to high short-run profit margins for the harvesting and processing of pollock. Access to the quota in the EEZ, thereby, becomes increasingly attractive and encourages a new round of investment.

<sup>&</sup>lt;sup>10</sup>National Marine Fisheries Service, National Status of the Stocks Document 1991.

### C. Overcapitalization

Increasing investment in the Alaskan groundfish fisheries has resulted in an overcapitalized industry. Overcapitalization is symptomatic of the larger problem in this fishery of using too many resources (i.e. capital, labor, fuel, etc.) to catch a given quantity of fish. Overcapitalization occurs when the capacity to harvest and process the fish exceeds what is necessary to perform those functions in a manner that maximizes the net benefits to society. Growing investment in the Alaskan groundfish industry demonstrates that positive rents and overcapitalization can exist simultaneously. Increased capacity in the Alaskan industry for both harvesting and processing has not lead to greater output and lower product prices, which is an indicator of overcapitalization. Over some period of time, rents can be driven to zero by increasing costs, or lower prices. Only then is new investment discouraged, although overcapitalization can persist.

The issue of overcapitalization has been by-passed in the Council's proposed amendments which deal only with who will have access to the economic rents. This report, accordingly, focuses on the allocation issue. However, there is a considerable body of literature which is directed at the problem of overcapitalization. Among solutions suggested by fishery economists, and others, are taxing away the rents (and thus, the incentive for investment) or limiting access to the fishery through various means.

## D. Utilization: Discards and Recovery Rates

Utilization refers to the amount (or percent) of the TAC that actually reaches the ultimate consumer. Both inshore and offshore vessels discard whole fish at sea. The discard

weight as a percentage of the catch is referred to as the <u>discard rate</u>. The volume of processed product as a percentage of the retained fish is referred to as the <u>recovery rate</u>, which varies among product types.

It has been alleged in public comment on the amendments that the offshore processors utilize less of a given harvest. As a result, increasing the share of TAC going to the inshore sector will improve the utilization rate, and therefore, will improve consumer welfare. A potential fallacy in this argument is indicated by the higher prices that offshore vessels receive for their products (SEIS Addendum 1991). In the context of the cost-benefit analysis, which takes discard and recovery rates into account, the issue of utilization rate is considered jointly with other factors. Because of this, one cannot state unequivocally that the lower utilization rate is inefficient in an economic sense. The trade-off between higher value and lower utilization must be judged empirically. Using an analogy, greater utilization from a side of beef can be achieved by grinding it into hamburger rather than dressing and trimming the beef to produce select cuts, although the latter may be more valuable.

The utilization differential would most likely be altered substantially if some control were placed on fleet capacity. Vessel design and fishing strategy are geared to the realities of olympic fishing, i.e. the race among individual vessels to take as much of the quota as possible prior to the quota's limits being reached. Optimal utilization for fish processed atsea, in the context of open-access, differs from the optimal recovery rate of shore-based processors. With some form of limited access to the quota, the excess fleet capacity would diminish and this could be reflected, in part, by a change in recovery rates. This report, however, addresses only the Council's proposed amendment and is therefore confined to the

allocation question.

### E. Product Quality

Pollock and its roe are prone to deteriorate rapidly after harvest. The problem is minimized for at-sea processors who are able to process fish immediately after capture. Shore-based processors, on the other hand, rely on raw product that has been transported over greater distances. Prices of at-sea processed products are higher than shoreside products which suggests that surimi and roe products produced at sea are superior in quality to similar products processed ashore. However, a definitive economic analysis to determine whether the offshore product is superior to similar products produced ashore was not done for this report because to do so requires better data than were available. However, our analysis uses historical prices that show a premium for the at-sea product.

#### F. Foreign Interests

The existence of interested foreign parties complicates the analysis. The percentage of Japanese ownership in inshore processing firms approaches 70 percent (GAO 1991). Foreign entities (notably, South African) are reported to have interests in the mothership fleet (American Independent Fishermen Letter, Jan. 31, 1992). Moreover, much of the surimi (340 million pounds in 1990) is exported to Japanese and Korean consumers. These facts suggest that much of the producer and consumer surplus accrues to individuals who are not citizens of the United States. C-B analysis traditionally recognizes only net benefits to citizens (Treasury Board Secretariat, 1976).

#### III. COST-BENEFIT ANALYSIS CONCEPTS

The cost-benefit (C-B) analysis upon which findings and observations in this report are based is designed to measure the economic effects of the prescribed allocations in the fishery in terms of net economic benefits that accrue from utilization of the resource. Cost-Benefit analysis is widely recognized as the appropriate method for analyzing public sector decisions. The approach appears to have originated in an 1844 work by Dupuit, gained formal recognition in the United States in the 1930's and widespread use since the 1950's as a tool for evaluation of public investments and policy. 11

In a C-B analysis, the benefits of a policy or project are the economic values of incremental outputs of goods and services made possible by the policy or project, as measured by changes in producer and consumer surplus. The change in producer surplus is the difference in rents with and without the policy; synonymously, it is the change in producer revenue (resulting from the management action) and the corresponding change in operating costs and new economic investment. <sup>12</sup> Consumer surplus is an approximation of the difference between what consumers are willing to pay for a product or service and what they actually pay. The sum of changes in producer and consumer gains minus management

<sup>11</sup> The origins of cost-benefit analysis are noted in Dasgupta, A. K. and Pearce, D. W., Cost-Benefit Analysis, Theory and Practice, The Macmillan Press Ltd., London, 1980. Recent surveys can be found in Dreze, S. and N. Stern, "The Theory of Cost-Benefit Analysis", Chapter nine in Handbook of Public Economics, Vol. II, ed. by A. Auerbach and M. Feldstein, Elsevier Science Publishers, 1987 and Dreze, J. and N. Stern, "Policy Reform, Shadow Prices, and Market Prices", Journal of Public Economics 42(1990)1:45.

<sup>&</sup>lt;sup>12</sup>Operating and investment costs are social costs which represent foregone values that would accrue using the incremental resources to produce other goods and services.

and enforcement costs is considered the net benefit. 13

Cost-benefit analysis, as applied to public investment or policy, is similar in form to financial analysis in that both assess the net benefits. Financial analysis, however, is based on the concept of private financial profit, which may differ from the net economic benefits defined by C-B economic analysis. Whereas financial analysis identifies only those benefits and costs associated with a private enterprise, net economic benefits measure the effect of the investment or policy on the whole economy.

The analysis in this report focuses on primary direct benefits. Estimation of secondary benefits in this analysis would require either a complete econometric analysis or shadow pricing of economic costs and benefits to assess the total social costs and benefits<sup>14</sup>.

Secondary benefits accrue in the form of income to otherwise unemployed support industries. In cost-benefit analysis, secondary costs and benefits are properly measured when the analysis uses shadow prices to measure value. In this study, no attempt was made to determine whether factor prices were equivalent to shadow prices (i.e. to what extent wages in the fishery reflect opportunity costs of employees).

When sufficient data are available, the technique of choice for evaluating changes in producer benefits would be to estimate an industry supply curve. Through regression

<sup>&</sup>lt;sup>13</sup>Also important are the effects of the policy on marine mammals. Some arguments have been raised that passage of the amendments will impose additional costs on society because the stellar sea lion population might be negatively effected (SEIS 1991). An analysis to address this issue is beyond the scope of our work.

<sup>&</sup>lt;sup>14</sup>See Just, Hueth and Schmitz (1982) for the econometric approach or Dreze and Stern (1987,1990) for shadow pricing. Shadow (or accounting) prices are the changes in net social welfare for a marginal change in resource use, which is what society forgoes as a result of using resources to implement the policy.

analysis, either costs, revenues or profits can be related to output levels and appropriate prices to determine the parameters of the supply function. The effect of the regulations (e.g. a change in the allocation) could then be simulated and the resulting change in benefits calculated.

Consumer benefits can be determined from estimating the demand relationship by relating quantities consumed to prices, income and other appropriate variables. The change in consumer benefits as a result of the regulations can be derived from the estimated demand curve<sup>15</sup>. For small changes in production levels, no consumer surplus results since consumer prices do not fall.

In a cost-benefit analysis, capital investments are costs incurred to produce the output. However, harvesting and processing capacity already in place are sunk costs. Although the annualized costs of investments are important in a financial analysis for determining profits, they are not considered in a cost-benefit analysis. In contrast, new investments made as a result of the allocation decision will be identified as costs in the cost-benefit analysis.

The different treatments of sunk costs and new investments in a cost-benefit analysis could have important implications in the inshore/offshore allocation decision if the inshore component requires new investment to accommodate increased production made possible by a specific allocation from the TAC. In the I-O analysis, additional inshore investment required to process the increased share of the allocation increases impacts on the local economy,

<sup>&</sup>lt;sup>15</sup>Difficulties exist in using consumer surplus as a true measure of consumer benefits, but in most instances, consumer surplus is an appropriate measure with an acceptable level of error (Willig 1976). However, care must be taken to include exogenous factors in the marketing chain that could affect demand for process products.

generating employment and income. In the C-B analysis, however, this increased investment would be treated as a cost to society and works against the inshore allocation argument. At the same time, the amendments may shift offshore vessels and motherships to other alternatives. The returns in the other alternatives should be considered in the C-B analysis as benefits to the proposed amendments. In the event that vessels and motherships transfer to another open-access fishery that is already managed by quota, benefits from the transfer will not be included in the analysis. The reason is that the dislodged vessels are merely taking someone else's portion of the quota and no net benefits accrue.

## IV. APPLICATION OF COST-BENEFIT ANALYSIS TO AMENDMENTS 18/23

### A. Scope of the Analysis

The inshore and offshore components of the fishing industry operating in the Gulf of Alaska and the Bering Sea/Aleutian Islands area have tremendous scope, with a large variety of harvested species and processed products. While capturing the diversity in the industry is no doubt important, limited time and data have made us focus our work on the principal species and products affected by the amendments, i.e., pollock and Pacific cod. When examining the processing sector of the industry, we consider processing of pollock into surimi, fillets, minced products, meal and roe. For Pacific cod, we consider only fillets and headed and gutted processed product.

From an analytical viewpoint, with the data and time allowed, we were unable to account for strategic changes in behavior of the inshore and offshore sectors that might result

from implementation of the amendments. For example, the amendments would allow offshore processors to move inshore and declare themselves part of the inshore sector for the season if they follow certain procedures. We have no way of determining to what extent this would occur over time, and therefore, have assumed that no such changes take place. The inshore and offshore sectors are treated as given, and the only thing that changes in this analysis as a result of the allocations are the harvests, and thus, the processed product quantities.

### B. General Methodology

The general approach to measuring changes in producer surplus as a result of the allocation is the same for the inshore and offshore sectors. However, specific steps in the analysis are performed differently where dictated by the availability of data for one sector that was not available for the other. Divergences that occurred in methodology are detailed below.

For both sectors, the basic formula to compute changes in producer surplus (  $\triangle$  PS) was:

$$\Delta PS = \sum_{i=1}^{n} (p_i \Delta q_i - c_i \Delta q_i)$$

where  $p_i$  is the price of processed product i,  $\Delta q_i$  is the change in production of processed product i,  $c_i$  is the average variable cost of production for processed product i, and n is the

number of products considered. Note the simplifying assumptions that prices do not change as a result of the allocation, and that costs per unit of output do not change with the level of output (constant returns to scale). The change in producer surplus is calculated for both sectors and then summed to obtain the net benefit resulting from the allocation.

To the extent that they are paid by a share system, vessel crews share in the changes in economic rents derived for the GOA and BSAI pollock and cod fisheries. <sup>16</sup> Crew shares are determined as a percentage of total revenues after certain expenses are extracted. For the offshore sector, crew shares are based on the revenue from processed products and the change would be computed as:

$$\Delta CrRents_{offshore} = CrShare \sum_{i=1}^{n} (p_i \Delta q_i)$$

where  $\triangle$ CrRents are the change in rents earned by the crew, and CrShare is the percent of total revenue paid to the crew. For the inshore sector, only the catcher vessels use the share system, and the share is based on the revenues earned from raw fish sales to the processing plants, so the calculation of changes in crew rents differs slightly:

$${\tt \triangle CRRents}_{inshore} {\tt = CrShare} \sum_{i=1}^{n} (xvp_i {\tt \triangle} h_i)$$

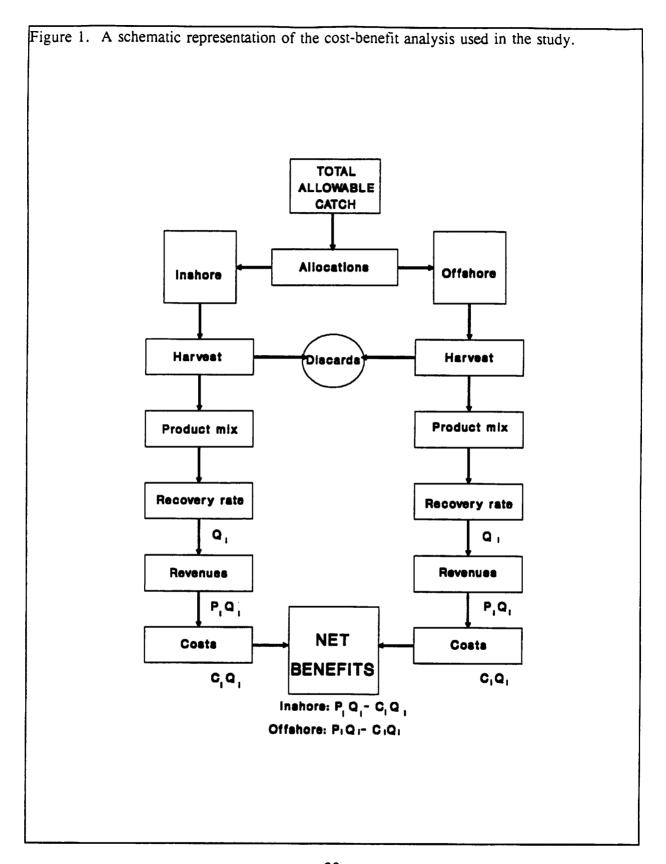
<sup>&</sup>lt;sup>16</sup>Technically, only the portion of crew wages above opportunity costs of labor are rents. If rents are decreased below opportunity costs we would expect fishermen to exit the fishery and if rents increase, some of this might accrue to new entrants who are earning their opportunity costs of labor. Throughout the analysis, we have had to assume no new entry or exit, so it is consistent to treat the change in crew wages as the change in rents.

where xvp<sub>i</sub> is the exvessel price and h<sub>i</sub> is the amount of fish harvested.

Within this general framework, the problem is to determine for each sector, the relative harvests of pollock and cod, the relative quantities of the various processed products, the prices received for those products, and the costs of producing the products. How these numbers were determined is detailed in the sections below. Figure 1 demonstrates the steps taken in the analysis to determine net benefits. The process differed slightly for each sector because a better sampling of detailed cost and earnings data was available for vessels in the offshore sector than for the inshore sector. As a result, the offshore sector is treated as a single unit, while the inshore sector is modeled as a number of representative harvesting and processing firms. Detailed cost and earnings data for the representative inshore harvesters and processors is then scaled up by the number of firms of that type to represent the entire inshore sector.

Net national benefits should include only consumer surplus changes occurring with domestic consumption. This is critical for processed cod and pollock products because a significant portion of these products is exported. Existing data are not sufficiently detailed to adequately address the export issue.<sup>17</sup> Thus, we do not attempt to estimate consumer surplus change as a result of a change in the allocation between offshore and inshore processing.

<sup>&</sup>lt;sup>17</sup>The missing detail relates primarily to the quality of surimi. It is alleged that a greater portion of surimi processed offshore is exported. Without adequate information on quality, the differential impacts of the amendments on consumer surplus cannot be addressed.



#### C. Risk Analysis

There is a degree of uncertainty about many of the items that are essential to a costbenefit analysis. After an initial analysis in which our best point estimates of the factors is
used, we incorporate into our analysis an assessment of the uncertainty surrounding critical
assumptions. To address the uncertainty, point estimates are replaced by a triangular (or
other appropriate) probability density function centered around the original parameter
estimate. The range of the distribution reflects our uncertainty about the true parameter
value. A Monte Carlo simulation technique (1,000 iterations) is then performed for the entire
cost-benefit analysis. In each iteration a value is drawn randomly from the distribution for
each item which is considered to vary. Net benefits are calculated for each iteration.

Because the net benefits are now the sum of many random variables, it is also considered
random with its own distribution. This allows us to provide not only an estimate of expected
results, but also information about our uncertainty surrounding those results.

### D. Detailed Analysis

#### (1) Total Allowable Catch (TAC)

The best available information of total allowable catches (TAC) for BSAI and GOA pollock and Pacific cod are the published Federal Register notices for the 1992 TAC's. <sup>18</sup> It is assumed throughout the analysis that the 1992 TAC's will remain in effect through 1995.

The Pacific cod TAC's for the BSAI and GOA are given in Table 1, and the pollock TAC's

<sup>&</sup>lt;sup>18</sup>Bering Sea and Aleutian Islands, Federal Register Notice 57 FR 3952, February 3, 1992. Gulf of Alaska, Federal Register Notice 57 FR 2844, January 24, 1992.

for the two areas are given in Table 2.

### (2) Harvests

For this study, harvests are defined as catch prior to at-sea discards, whereas landings are defined as harvests minus at-sea discards. The best available data for landings for the offshore and inshore fleets in the BSAI and the GOA is the PacFIN database for 1991. 19

Landings from the PacFIN database were adjusted for discards by dividing by one minus the appropriate discard rate (see discussion of discard rate below) to determine the relative 1991 harvests of Pacific cod and Alaskan pollock for the two sectors.

The relative harvests of BSAI and GOA pollock by the inshore and offshore sectors with amendments 18/23 in place are determined by multiplying the allocation percentage as listed in the amendment by the 1992 TAC. This same method is applied to the Pacific cod harvest in the GOA. Under amendments 18/23, Pacific cod in the BSAI is not allocated. Therefore, it is assumed that the inshore harvest of Pacific Cod in BSAI is equal to the 1991 inshore harvest percentage (26%) times the 1992 TAC.

For the baseline scenario, it is assumed that, in all years of the analysis, the inshore and offshore sectors would continue to take the same percentage of the harvests of BSAI and GOA Pacific cod and pollock as they did in 1991. Inshore harvest of BSAI pollock in 1991 was 23% of the TAC. We determined that this is the best information available on what future harvests will be if amendment 18/23 does not go into effect.

<sup>&</sup>lt;sup>19</sup>PacFIN is an acronym for Pacific Coast Fisheries Information Network, a database maintained by the Pacific States Fisheries Commission, Portland, Oregon.

The 1. Pacific Cod TAC, inshore and offshore harvests used in the analysis of inshore/offshore allocation (memo tons).

Year	TA	<b>C</b>					arvest				
reat				Without Allocation		With Allocation					
			lash	ore	Oilsh	ore	Insh	Ove	Offsl	ore	
	BSAL	GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAI	GOA	
1992	182000	63500	47320	51435	134680	12065	47320	57!50	134680	6350	
1993	182000	63500	47320	51435	134630	12065	47320	57150	134680	6350	
1994	182000	63,506	47320	51435	134680	12065	47320	57150	134680	6350	
1995	1820 <b>0</b> C	63500	47320	51435	134680	12065	47320	57150	134680	6350	

Table 2. Pollock TAC, inshore and offshore harvests used in the analysis of inshore/offshore allocations (metric tons)

Year	7.	_	Harvest								
I ÇAI	1	TAC		Without Allocation				With A	location		
<b>!</b>			lash	ore	Ofish	ore	ļnsb	ore	Offst	ore	
-	BSAI	GOA	BSAI	GOA	BSAI	GOA	BSAL	GOA	BSA1	GOA	
1992	1352600	87400	2053251	62928	6873911	2447?	3124511	87400	5802651	0	
1993	1352600	87400	311096	62928	1041502	24472	541040	87400	811560	0	
1994	1352600	87400	311098	62928	1041502	24472	608670	87400	743930	0	
1995	1352600	87400	311098	62928	1041502	24472	608670	87400	743930	0	

For 1992 Bering Sea pollock, harvest figures are for part year (B season) only.

Because of the timing of this analysis, and the earliest possible time in 1992 that the amendments could take effect, it is assumed that the "A", or pollock roe season, in BSAI will have already occurred when the allocations become effective. The "A" season harvest is set at 40% of the TAC after the reserve has been removed. Since the reserve is 15% of the TAC, by the time the allocations could go into effect, 34% of the BSAI pollock TAC will have been taken in 1992 (i.e., 40% of 85%). The remaining 66% of the TAC would be taken in the "B" season and would be subject to the 65%-35% offshore-inshore allocation proposed for 1992. The part year analysis was not applied in the Gulf of Alaska, and is irrelevant to the issue of cod harvest in the BSAI since cod is not allocated there.

Tables 1 and 2 summarize the assumed harvests of the inshore and offshore sectors in the BSAI and GOA for the scenarios where Amendments18/23 is in effect (With) and when it is not in effect (Without). The 1992 harvest of pollock in the BSAI (Table 2) reflects only the part year ("B" Season) harvest for both the With and Without scenarios. Remaining years' harvests (1993-1995) reflect the full season.

Tables 1 and 2, however, do not reflect the Community Development Quota. This quota can be up to 50% of the reserve, or 7.5% of the TAC. In the SEIS two scenarios were run, one where the quota was not considered, and one where the quota was assumed to accrue entirely to the inshore sector by 1993. In the latter case, by 1994 the inshore sector harvest of pollock in the BSAI could constitute just under 50% of the TAC and the offshore sector just over 50%. A net benefit analysis with this assumption of the Community Development Quota is included in the results section.

#### (3) Discards

There are several sources of information and ways of interpreting at-sea discard data for the inshore and offshore sectors of the Alaskan groundfish industry. We believe that data on discards reported by the NMFS observer program are the best information available on at-sea discards, recognizing that there is only partial coverage of the inshore sector. We have determined that the observed rates, where available, should be applied to the entire harvest rather than being combined with the unobserved self-reported rates (which are usually zero discards). This information was available for the BSAI and GOA for the inshore and

Table 3. Discard rates

	Insi	hore	Offs	hore
Species	BSAI	GOA	BSAI	GOA
Pollock	4.4%	4.3%	10.9%	20.5%
Cod	1.4%	1.4%	5.5%	5.5%

Source: NMFS Observer Data, January 22 memo from F/AKC-William Aron to Fx1-Michael Tillman.

offshore sectors for pollock and is reported in Table 3. For Pacific cod the discard rates were calculated from the NMFS weekly processor reports, which contain the self-reported discards for the inshore sector, but were not broken down by area, . This was the best available information at the time of this report for Pacific cod discards and are included in Table 3.

#### (4) Product mix

#### <u>Inshore</u>

According to the operational profiles for shore-based processing plants used in this analysis, the major products produced by these plants are cod fillets, pollock fillets, pollock surimi and pollock roe, where roe is considered a secondary product. Product ratios for the different types of shore-based plants assumed throughout the analysis are shown in table 4.

#### **Offshore**

The best available data on product mix for the offshore sector is the NMFS weekly observer processed product reports which we used to estimate 1991 volumes for the major products produced. The major products are Pacific cod headed and gutted, Pacific cod fillets, pollock fillets, pollock surimi, minced pollock, pollock roe, and pollock meal.

For Pacific cod, all landings are treated as either being used to produce headed and gutted product or fillets. This is consistent with the approach followed by the inshore sector where the production of the other minor product forms are also ignored. For pollock, it is assumed that roe and meal are secondary products, and are assumed to be produced in the same proportion to non-discarded catch as they were in 1991.<sup>20</sup> Fillets, surimi and minced pollock are assumed to be produced in the same ratios as in 1991

 $<sup>^{20}</sup>$ Secondary products are produced jointly with other products and must be considered separately to avoid double counting.

Table 4. Product mixes assumed for shore-based and offshore processing plants through out the analysis.

Product	BSAI Groundfish	GOA Groundfish	GOA Traditional	Offshore All
Primary:				
Cod H&G	0%	0%	0%	82%
Cod Fillets	100%	100%	100%	18%
Pollock Fillets	0%	5%	100%	38%
Pollock Surimi	100%	95%	0%	57%
Pollock Minced	0%	0%	0%	5%
Secondary:				
Pollock Roe	0.34%	0.02%	0%	2%
Pollock Meal	0%	0%	0%	3.4%

# (5) Product Recovery Rates

For 1992, NMFS has determined that, for estimating catches, it will use a surimi recovery rate of 18% for offshore processing vessels, and 20% for inshore plants.<sup>21</sup> These are the product recovery rates that will be assumed for surimi production throughout the analysis.

For the other major processed products, the recovery rates as computed from the 1991 weekly observer database will be used throughout the analysis. For the risk analysis, these

<sup>&</sup>lt;sup>21</sup>Letter dated January 23, 1992, from S. Pennoyer to H.A. Larkins regarding product recovery rates for surimi.

rates will be approximated by triangular probability density functions where the mode, minimum and maximum values are obtained from the weekly processor reports. For offshore surimi, the minimum was set equal to .15, the value NMFS used in 1991, and the maximum was .20, or equivalent to what NMFS assumes onshore recovery is. Inshore surimi recovery rates were set deterministically at .20 because we had no other information on which to base a triangular distribution (Table 5.)

Table 5. Product recovery rates (mode, minimum and maximum values) for the inshore and offshore sectors for the major products used throughout the analysis.

Product		INSHORE			OFFSHORE	
	Min	Mode	Max	Min	Mode	Max
Pacific cod H&G	.56	.66	.85	.50	.59	.85
Pacific cod fillets	.25	.26	.29	.10	.31	.50
Pollock fillets	.25	.26	.29	.13	.26	.49
Pollock surimi	N.A.	.20	N.A.	.15	.18	.20
Pollock Minced	N.A.	N.A.	N.A.	.34	.49	.71

Source: NMFS Processed Products Weekly Observer Data, except surimi. January 22 Memo from F/AKC - William Aron to Fx1-Michael Tillman. N.A. = not applicable.

#### (6) REVENUES

Revenues are derived by multiplying prices times production. In this section, we

present our approach to determining processed product prices and also summarize the changes in production that arise from the amendments. We then present our estimates of revenue changes arising from the proposed amendments.

### **Price**

Our use of 1991 calendar year landings and processing production creates a problem with regard to having comparable price information at the time of this analysis. Data on the volume of processed products were available nearly immediately, but processed product price information was not. We could use the 1990 data and assume a small error. The problem is that there is ample evidence that prices rose significantly in 1991, (BANR, 1991; Kinoshita, et al., 1991) and the error is likely to be too large.

A listing of 1990 at-sea and shore-based prices is provided in Table 6. These prices are weighted (by volume) average prices. To illustrate the rise in prices, monthly prices for several grades of offshore surimi production are shown in Table 7 and recent annual prices for various harvested species and processed products are shown in Table 8. Comparing the 1990 at-sea surimi price in Table 6 with the prices shown in Table 7, it becomes obvious why 1990 prices cannot be used. The average annual 1990 surimi price for at-sea vessels is \$.72/lb., whereas the comparable 1991 price is \$1.57/lb. The doubling of prices is consistent with data presented in the Atkinson News Report. A recent issue of Pacific Fishing (January 1992) quoted pollock roe prices as \$6.05/lb, nearly double the 1990 price shown in Table 6.

We form a best estimate of 1991 prices using all available data. Because the difference between shore-based and at-sea processed product is critical to the analysis, we

Table 6. 1990 Pollock and Pacific cod processed product prices.

POLLOCK	AT-SEA	SHOREBASED	DIFFERENCE
Roe	\$3.12 (.50-4.92)	\$2.69 (1.80-3.11)	\$0.43
Fillets (No skin/ribs)	\$1.05 (.50-1.85)	\$0.88 (.70-1.65)	\$0.17
Surimi	\$0.72 (.4599)	\$0.65 (.5586)	\$0.07
Minced	\$.86	not used	
Meal	\$.25 (.1429)	\$.22 (.0329)	\$.03
PACIFIC COD	AT-SEA	SHOREBASED	DIFFERENCE
Headed and Gutted	\$0.86 (.08-2.06)	\$0.69 (.35-2.25)	\$0.17
Fillets	\$1.74 (.64-3.27)	\$1.43 (.30-2.45)	\$0.31

Source: SEIS, Appendix, 1991.

Figures in parentheses are the lower and upper bounds used in the risk analysis.

focus on that difference. The differences are shown in Table 6. For processed products, we estimate an at-sea price and then use the differences shown in Table 6 to determine the shore-based price. In our Monte Carlo work, a random distribution is placed around the difference in prices. The lower bound of the shore-based price is the 1990 shore-based price expanded by the rate of increase observed for the at-sea price between 1990 and 1991. The upper bound of the shore-based price is the estimated 1991 at-sea price.

The actual values are shown in Table 9.

The at-sea prices are derived from several sources. For pollock roe, we use the 1990

Table 7. At-sea surimi prices (US\$/lb), by grade and month, 1991.

MONTH	GRADE I	GRADE II	GRADE III	GRADE IV
January	\$1.03	\$1.07	\$1.01	\$0.87
February	1.28	1.19	1.18	0.99
March	1.26	1.23	1.22	1.10
April	1.54	1.30	1.21	1.20
May	1.36	1.35	1.31	1.10
June	1.58	1.55	1.43	1.33
July	1.76	1.40	1.56	1.44
August	1.96	1.88	1.86	1.67
September	2.14	2.06	1.94	1.79
October	2.16	1.92	1.79	1.65
November	2.34	2.21	1.95	N/A "
December	N/A	N/A	N/A	N/A
Mean Annual	\$1.80	\$1.49	\$1.41	\$1.36
Overall mean \$1.57/lb				

Prices are from monthly data for approximately 65% of the at-sea surimi processors (includes both catcher/processors and motherships). All prices are FOB Dutch Harbor and exclude transportation costs.

Source: Garry Brown, Letter (10 Feb 92).

value increased by 10 percent, the percentage increase observed in the import price of frozen pollock roe in Japan (BANR, Issue 421, 1992). We believe this to be a conservative estimate of the 1991 price, but because we use the same price over the entire 1992-1995 period, we choose to be cautious. After all, the recent increase in price could be a short-run phenomenon. For the at-sea pollock fillet price, we use the Urner Barry Newsletter price for

Table 8. Recent trends in annual pollock and pacific cod prices.

POLLOCK	HARVES	ST PRICE	<del>-</del>	PROCESSED PRODUCT PRICE		
	Alaska- Hook&Line Ave. Annual	Alaska- Trawl Ave. Annual	Alaska- Fillets May	Alaska- Fillets-IQF May		
1988	.07	.08	1.19	1.29		
1989	.13	.08	1.11	1.32		
1990	.32	.09	1.14	1.30		
1991	.34	.09	1.98	1.84		
PACIFIC COD	HARVES	T PRICE	PROCESSED PRODUCT PRICE			
	Alaska-	Alaska-	Seattle-	Seattle-		
	Hook&Line Ave. Annual	Trawl Ave. Annual	Frozen Block May	Frozen Fillet May		
YEAR	Hook&Line					
YEAR 1988	Hook&Line Ave. Annual	Ave. Annual	May	May		
	Hook&Line Ave. Annual (\$/lb)	Ave. Annual (\$/lb)	May (\$/lb)	May (\$/lb)		
1988	Hook&Line Ave. Annual (\$/lb)	Ave. Annual (\$/lb)	May (\$/lb) na	May (\$/lb) 2.05		

1 Source: Kinoshita, et al., 1991

Seattle of \$1.31/lb adjusted by \$.06/lb shippage to get \$1.25/lb. This again is conservative given the increase between 1990 and 1991 observed with May fillet prices, Table 8. At-sea surimi prices were taken as the overall mean 1991 price, \$1.57/lb (Table 7). The minced

<sup>\*\*</sup>The 1991 data are preliminary. Extracted from catch data bases on August 23,1991.

Table 9. Calculated 1991 pollock and pacific cod product prices.

POLLOCK	AT-SEA	SHOREBASED
Roe	\$3.43	\$3.00 (2.96-3.43)
Fillets	\$1.25	\$1.08 (1.05-1.25)
Surimi	\$1.57	\$1.50 (1.41-1.57)
Minced	\$.86	not used
Meal	\$.27	\$.24 (.2427)
PACIFIC COD	AT-SEA	SHOREBASED
Headed and Gutted	\$1.28	\$1.11 (1.07-1.28)
Fillets	\$2.18	\$1.87 (1.80-2.18)

pollock price of \$.92/lb is taken from the Urner Barry Newsletter and adjusted for shippage to \$.86/lb. The same source is used to derive the meal price of \$.27/lb.

The next prices shown in Table 10 are for Pacific cod. We increase the 1990 fillet price by the same rate as prices for fillets increased from May 1990 to May 1991 (Table 8). The headed and gutted prices are increased by the same percentage.

The final prices necessary for the analysis are for shorebased harvesting. Fortunately, the 1991 ex-vessel prices for hook and line and trawlers are available by area and gear for the major portion of the season - through August- in Kinoshita et al., 1991. Ex-vessel prices

for the BSAI and GOA inshore catcher vessels were defined for longline vessels from the category "Hook and Line" and for combination and "pure' trawlers from the category "Trawl". The actual values are shown in Table 10.

Table 10. Offshore exvessel prices, by area and gear, 1991.

SPECIES	GULF OF ALASKA		BERING SEA/ ALEUTIANS	
-	Hook & Line	Trawl	Hook & Line	Trawl
Pollock	\$0.31	\$0.12	\$0.36	\$0.09
Pacific Cod	0.28	0.22	0.27	0.20

Source: Kinoshita, et al., 1991.

# Changes in Harvesting and Processing Production

Our procedure to allocate TAC and determine landings, product mix and discards initially creates two scenarios for computing processed production, one without the amendments and one with the offshore and shorebased allocations changed. In addition, we also assess the effect of the Western Alaskan Community Reserve (or Community Development Quota) by assuming (as in the SEIS) that the majority of the reserve goes to the shorebased sector. Thus, we compute three levels of production: the baseline, the with amendments and Western Community Reserve, and the with amendments and no Western Community Reserve. Our assessment of these scenarios is presented in Table 11 for the shore-based and at-sea sectors.

Table 11. Estimated annual processed production (kmt) for three scenarios, by product and processor location for 1994 and 1995.

SHOREBASED PRODUCT	BASELINE	WITH COMMUNITY RESERVE AND REALLOCATION	WITH REALLOCATION -NO RESERVE
POLLOCK SURIMI	69.8	141.2	130.7
POLLOCK FILLETS	2.3	3.2	3.2
POLLOCK ROE	1.0	2.2	2.0
POLLOCK MEAL	12.1	23.1	11.0
COD- HEADED AND GUTTED	7.9	7.9	7.9
COD FILLETS	22.9	24.4	24.4
AT-SEA PRODUCT	BASELINE	WITH COMMUNITY RESERVE AND	WITH REALLOCATION
	J	REALLOCATION	-NO RESERVE
POLLOCK SURIMI	95.4	61.9	73.2
	95.4		
POLLOCK		61.9	73.2
POLLOCK FILLETS	105.6	61.9	73.2 80.6
POLLOCK ROE POLLOCK	105.6	61.9 68.5 12.3	73.2 80.6 14.5
POLLOCK ROE POLLOCK MINCED POLLOCK	105.6 19.0 24.3	61.9 68.5 12.3 15.8	73.2 80.6 14.5 18.6

The Western Alaska Community Reserve and TAC reallocation will have substantial impacts on offshore and shore-based processing. The substantial effects arise almost entirely because of pollock reallocation. With both changes in place, we estimate that shore-based surimi production will double, representing an increase of slightly over 70 thousand metric tons (KMT) or 140 million pounds. Although the other processed pollock products rise in nearly the same proportion, their absolute increase is small in comparison. Only pollock meal production rises by more than 10 KMT and then only when the community reserve is implemented. The effect on shorebased cod processed production of the amendments is minimal, increasing cod fillets by about 10%.

The effects on at-sea pollock processing are more uniform across product types. With both the Reserve and TAC reallocation, approximately 35% of the baseline at-sea processed production from pollock is lost. For pollock surimi, this amounts to about 30 KMT or 60 million pounds of lost production. Nearly the same absolute amount of pollock fillets are lost. Pollock roe, minced pollock and pollock meal production each fall by 7, 8.5 and 12 KMT, respectively.

It is important to recognize the "qualitative" aspects of the changes implied in Table 11. Although the total production of surimi rises by nearly 40 KMT, the price of the surimi that is increased is lower. Moreover, the increase in surimi production is nearly offset by the loss in pollock fillet production, another higher valued product. Finally, much of the highest valued product, pollock roe, is also lost.

### (7) Costs

### Offshore Costs

Detailed cost and return data for the offshore fleet for 1990 was provided by the Alaskan Factory Trawlers Association. These data were made available to the NPFMC staff and the NMFS well in advance of this study, and we have determined that it represents the best information available on offshore production costs. These data were collected from 64 offshore processing vessels. It was assumed that the cost data presented for these 64 vessels was representative of costs for the entire offshore fleet.

The variable costs presented by the offshore vessels include transportation costs of final product, labeled Transportation Southbound (product) in the database. These transportation costs are subtracted from the production costs so that the cost estimates represent ex-plant production costs which correspond with the price data we are using (see section on prices, below). We also subtract labor costs from the production costs because these are paid as a share of the value of the final output to the crew and depend on assumptions about product price and the allocation that the offshore vessels will be receiving. Therefore, labor costs are calculated independently from the production costs and are then added back to the estimated production costs for the producer surplus calculations. Labor costs per unit of processed product output are calculated by multiplying the ex-plant product price times the average crew share. The average crew share (23%) is calculated by dividing labor costs in the offshore processor vessel cost database by total revenue.

In order to allocate production costs other than labor to the various outputs produced, a linear regression is run of variable costs on the different quantities of the major products for

each of the 64 catcher/processors in the database. The major products are: pacific cod fillets, headed and gutted pacific cod, other species headed and gutted, pollock fillets, minced pollock, surimi, pollock roe, and pollock meal. Production levels for the major products for the 64 offshore vessels for which we have cost data was obtained from summaries of the NMFS weekly observer database. Vessel identifiers in the observer database were matched with the vessels in the cost database. It was determined that this, the NMFS weekly observer database, was the best information available on production of individual offshore processing vessels.

Regression results are presented in Table 12. The coefficients from the regression represent the estimated marginal and average costs for the various products<sup>22</sup>. The simple regression analysis performed reasonably well in explaining 57% of the variability in production costs and having expected positive production costs for each of the major products of interest. A more detailed analysis, with more data and explanatory variables could perhaps improve both the overall explanatory power of the regression and the statistical significance of the results. In particular the Pacific cod headed and gutted and minced pollock costs show little significance. The large variability in these results, however, are incorporated into the Monte Carlo risk analysis.

<sup>&</sup>lt;sup>22</sup>This cost function imposes constant returns to scale. It is not intended to be a substantively flexible functional form multiproduct cost function that would allow estimates of scale economies and various production relationships among outputs. Data was insufficient to perform that flexible of an analysis.

Table 12. Results of regression analysis of variable costs minus labor costs on final product output for 64 offshore catcher/processors.

PRODUCT	COEFFICIENT	STANDARD ERROR	t-STATISTIC
Pacific Cod H&G	\$0.02	0.26	0.06
Pacific Cod Fillet	\$0.64	0.24	2.69
Pollock Fillet	\$0.18	0.11	1.60
Pollock Surimi	\$0.10	0.06	1.80
Pollock Roe	\$1.06	0.62	1.71
Pollock Minced	\$0.03	0.36	0.08
Pollock Meal	\$0.06	0.11	0.51
	_		
Constant	1540	844	1.82
$R^2$	0.57		
N	64		

To calculate actual production costs, labor costs are added back to the coefficients from the regression as discussed above. This average variable production cost per unit of final product is then multiplied by the estimated total output of the final product under the various catch scenarios to determine the total production cost for the final product output. In the risk analysis, the coefficients are replaced by truncated normal probability density functions which are truncated at zero, have a mean equal to the value of the regression coefficient, a standard error as calculated from the regression analysis, and have a maximum value equal to the mean plus one standard error.

#### Inshore Costs

In the analysis of inshore costs, the relevant costs for estimating changes in producer surplus for the inshore sector are the variable costs incurred by catcher vessels in their fishing operations and by plants in their processing operations. We assume catcher vessels and shore-based processing plants experience constant returns to scale which means that average variable cost or the per unit cost of harvesting or processing will stay the same no matter what the amount of harvest or production. Therefore, total variable costs will increase (decrease) with an increase (decrease) in production. The per unit costs for each type of catcher vessel and shore-based processing plant are derived from their operational profiles, and are assumed to remain unchanged over the period of the analysis.

To estimate the average variable harvesting cost for each type of catcher vessel we first subtract labor costs from the total variable cost reported in the vessel's operational profile, since under prevailing practices labor receives a share of the value of the landed catch. The average crew share is calculated by dividing the reported labor cost by the total exvessel revenue presented in the operational profile. Non-labor variable cost is divided by total output to estimate average non-labor variable costs. The total variable cost for a given level of landings is then calculated by multiplying the non-labor average variable cost by total landings, multiplying exvessel revenue by crew share to get the labor cost, and then taking the sum of these two products.

We estimate the average variable production costs for each type of processing plant by first separating raw product costs, landings times exvessel price, from total variable production costs. We divide the remaining production costs by total output to estimate

average non-raw product variable costs of production. Total production costs for each plant are then calculated by multiplying total output by the non-raw product average variable cost and adding this cost to the cost of raw product. Shore-based per unit processing costs are shown in Table 13.

This approach of calculating production costs for the inshore sector does not provide the information on uncertainty and variability of costs that the analysis of the offshore costs allows. At a minimum, the uncertainty surrounding production costs for inshore processors should equal the level of uncertainty we have regarding offshore processing costs. Therefore, we used information from the uncertainty of offshore processing costs as a guide to the level of inshore processing cost uncertainty. For the offshore processing sector we calculate the ratio of the standard error of the cost estimate to the mean. We then apply that ratio to determine the maximum value of the inshore processing cost in a triangular probability distribution. The maximum is the mean times one plus the ratio. The minimum value of the triangular distribution is set to zero to correspond with the treatment of offshore costs where the normal probability distribution is truncated at zero.

Table 13. Inshore processing costs per unit of output (\$/lb.), Less raw fish costs.

	Minimum	Mean	Maximum
Gulf Groundfish	0	.14	.22
Gulf Traditional	0	.40	.58
Bering Sea Groundfish	0	.30	.53

### V. RESULTS OF COST-BENEFIT ANALYSIS

Using the techniques and data as presented in the previous section, we calculate annual changes in net benefits as a result of implementing Amendments 18/23 of the BSAI and GOA Groundfish Management Plans. We then calculate the net present value (NPV) of the net benefits by summing over the years in which the Amendments would be in effect (B-season 1992 through 1995) and discount using a 5% real discount rate. The annual results and net present values are given in Table 14. This table also shows the breakdown of the transfers from the offshore vessels and crews to the inshore vessels and crews resulting from implementation of the Amendments.

Overall, the calculation of net benefits show a loss of \$181 million to society over the effective period of the amendments. This measurement of a loss in economic efficiency stems from offshore sector losses in the amount of \$619 million, offset partially by gains of \$438 million for the inshore sector.

As noted previously, vessel crews are compensated on the basis of shares of the vessel revenues. Included in the figures are losses for offshore crews amounting to \$161 million, while inshore crews gain \$116. The \$45 million difference is either a transfer from the offshore crews to inshore plant owners or part of the efficiency loss.

The risk analysis which incorporated our knowledge of the uncertainty of the many key variables necessary for the analysis revealed that, given our assumptions, there is almost zero probability that the net present value of net benefits from implementation of the proposed amendments would be positive (Figure 2). In the Monte Carlo simulations, losses were as

Table 14. Net benefits (losses) in millions of dollars to the inshore and offshore vessel/plants and crews for the operational years of Amendments (18/23) with net present value of benefits discounted at a 5% real rate of interest with the A (pollock roe) season already completed in 1992.

SECTOR			YEAR	<del></del>		
	1992	1993	1994	1995	NPV (5%)	
		(\$millions) <sup>1</sup>				
INSHORE	Vessel/Plant	\$51	\$89	\$115	\$115	\$322
	Crew	\$14	\$35	\$41	\$41	\$116
	Total	\$65	\$124	\$156	\$156	\$438
OFFSHORE	Vessel/Plant	(\$62)	(\$132)	(\$165)	(\$165)	(\$458)
	Crew	(\$21)	(\$47)	(\$59)	(\$59)	(\$161)
	Total	(\$83)	(\$178)	(\$224)	(\$224)	(\$619)
NET	Vessel/Plant	(\$11)	(\$43)	(\$51)	(\$51)	(\$136)
	Crew	(\$7)	(\$12)	(\$18)	(\$18)	(\$45)
	Total	(\$18)	(\$55)	(\$68)	(\$68)	(\$181)

little as \$15 million and as high as \$350 million, but the expected value was \$181 million. The results to this point do not reflect the potential allocation to the Community Development Quota. In the SEIS for Amendments 18/23, it was assumed that the Community Quota would be allocated as part of the inshore sector in 1993. This would effectively give the inshore sector 44% of the catch instead of 40% in 1993 and 49% in 1994 and 1995.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Figure 2. Results of risk analysis showing probability of different levels of net benefits from Monte Carlo simulation.

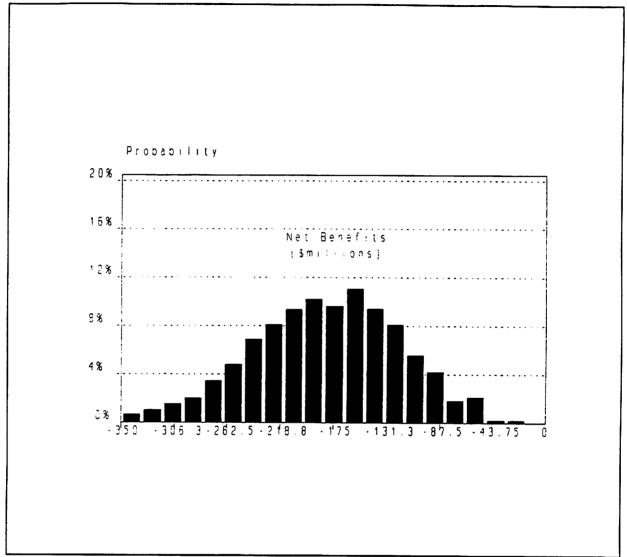


Table 15 shows the effect of the Community Development Quota being allocated to the inshore sector. The loss in benefits, in this case, increases to \$209 million. This would be a minimum estimate of the loss. If, in order to qualify for the quota, new processing capacity is built, the required new investment must be counted as a cost to the inshore sector and added to the \$209 million loss.

The cost-benefit analysis clearly indicates that given the present state of technology and market environment, the offshore sector is the more economically efficient in terms of utilization of the BSAI/GOA pollock and cod stocks. The large net economic losses associated with diverting offshore pollock production to shore-based operators stem from the capability, at least now, of the offshore sector to convert the resource into a higher valued product at lower relative costs. This advantage in efficiency is adequate to more than compensate for the fact that offshore production has a somewhat lower resource utilization rate (i.e. higher discards and lower recovery rates) than production by inshore plants. In effect, the process of shifting offshore operations to shore-based plants undervalues the pollock stocks. Society loses a significant number of dollars that could otherwise be put to productive alternative uses.

Table 15. Net benefits (losses) in millions of dollars to the inshore and offshore vessel/plants and crews for the operational years of Amendments (18/23) with net present value of benefits discounted at a 5% real rate of interest with the A (pollock roe) season already completed in 1992 and the Community Development Quota accruing to the inshore sector in 1993 and beyond.

SECTOR	<del></del>		YEAR			
		1992	1993	1994	1995	NPV (5%)
			(	(\$millions)	L	
INSHORE	Vessel/Plant	\$51	\$109	\$135	\$135	\$375
	Crew	\$14	\$40	\$47	\$47	\$129
	Total	\$65	\$150	\$182	\$182	\$504
OFFSHORE	Vessel/Plant	(\$62)	(\$159)	(\$192)	(\$192)	(\$527)
	Crew	(\$21)	(\$56)	(\$68)	(\$68)	(\$186)
	Total	(\$83)	(\$215)	(\$261)	(\$261)	(\$714)
NET	Vessel/Plant	(\$11)	(\$50)	(\$57)	(\$57)	(\$152)
	Crew	(\$7)	(\$16)	(\$21)	(\$21)	(\$57)
	Total	(\$18)	(\$65)	(\$79)	(\$79)	(\$209)

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

#### References

- H.A. Adler, Economic Appraisal of Transport Projects, Johns Hopkins U. Press, 1987
- (BANR) Bill Atkinson's News Report (Issue 431), 1991.
- Christy, F.R. 1972. <u>Alternative Arrangements in Fisheries Management</u>. John Hopkins Press.
- A.K. Dasgupta and D.W. Pearce, Cost-Benefit Analysis, Macmillan, 1978.
- J. Dixon and M. Hufschmidt, eds. <u>Economic Valuation Techniques for the Environment: A Case Study Workbook</u>. Johns Hopkins University Press, 1986.
- J. Dreze and N. Stern. "The Theory of Cost-Benefit Analysis," chapter 9 in <u>Handbook of Public Economics</u>, Vol. II, ed. by A. Auerbach and M. Feldstein, Elsevier Science Publishers, 1987.
- -----. "Policy Reform, Shadow Prices, and Market Prices," <u>Journal of Public Economics</u> 42 (1990): 1-45.
- S. Edwards, 1990. "An Economics Guide to Allocation of Fish Stocks between Commercial and Recreational Fisheries." NOAA Technical Report NMFS 94.
- Gittinger, J. Price <u>Economic Analysis of Agricultural Projects</u>, second edition, Johns Hopkins U. Press, 1988
- Hufschmidt, M., D. James, A. Meister, B. Bower, and J. Dixon. Environment, Natural Systems, and Development: An Economic Valuation Guide. Johns Hopkins University Press, 1983.
- Just, R.E., D.L. Hueth and A. Schmitz. 1982. <u>Applied Welfare Economics and Public Policy</u>. Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632.
- Kinoshita, R.K., B.M. Brooke, L.E. Queriolo and J.M. Terry. 1991. "Economic Status of the Groundfish Fisheries Off Alaska, 1991", Draft Report. NOAA, NMFS, Alaska Fisheries Science Center, Seattle.
- Mishan, E.J. 1988. Cost-Benefit Analysis, fourth edition, Unwin Hyman.
- North Pacific Fisheries Management Council. 1991. Draft Supplemental Environmental Impact Statement Amendments 18/23 to the BSAI and GOA Groundfish Fishery Mangement Plans.

Planning Branch, Treasury Board Secretariat, Canadian Government, <u>Benefit-Cost Analysis</u> Guide, 1976

Sassone P. and W. Schaffer, Cost-Benefit Analysis: A Handbook, Academic Press, 1978.

Squire, L. and H.G. van der Tak, Economic Analysis of Projects, Johns Hopkins U. Press, 1975.

United States General Accounting Office (GAO), Washington, D.C. 20548. Report RCED-91-127 Seafood Processing, July 1991.

Willig, Robert D. "Consumer's Surplus without Apology", <u>American Economic Review</u>, Vol. 66, No. 4, Sept. 1976, pp 589-597.

# APPENDIX A

Net Benefits (Losses) From Implementation of Amendments 18/23

Under Various Assumptions

The following 9 tables were based on a preliminary version of the models presented in the main paper. They were generated in response to specific requests by NOAA managers to analyze year by year net benefits under a variety of assumptions. Table 1 differs slightly from Table 14 in the main document due to revisions to the models that were made subsequent to the development of these tables.

The analysis shows that under any of the operating assumptions, the proposed allocations would result in a net loss of producer benefits in excess of \$100 million (net present value, discounted at a 5% real rate of interest) over a three and one-half year program life, with the range going up to \$178 million. The lesser figure reflects a net loss to the offshore sector in the amount of \$443 million, against a gain of \$338 million for the inshore sector (Table 9). The "worst case" result is a \$613 million net loss for the offshore sector, while the inshore sector gains \$435 million (Table 1). The lower losses occur where it is assumed that the inshore sector took 28 percent of the BSAI pollock TAC in the base year 1991 and the offshore surimi recovery rate was 15 percent. The higher losses assume a 23 percent pollock share for the inshore sector, along with an 18 percent recovery rate for offshore surimi.

Tables 2, 4, 6 and report on the results of four full years of program operation which pegs the losses somewhat higher. Also, an estimate was made based on implementation of allocations for the Gulf of Alaska only. The latter showed a loss in net benefits amounting to \$23 million over a four year program life, including \$74 million loss for offshore operators and a \$51 million gain for the inshore sector (Table 5).

Table 1. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: PART Year 1992\* / 18% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 23% BSAI Pollock TAC

SEC	CTOR		YEA	R**		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
		(\$millions) <sup>1</sup>				
INSHORE	Vessel/ Plant	\$49	\$104	\$131	\$131	\$362
	Vessel Crew	\$14	\$20	\$25	\$25	\$74
	Total	\$62	\$124	\$156	\$156	\$435
OFFSHORE	Vessel	(\$58)	(\$132)	(\$165)	(\$165)	(\$453)
	Vessel Crew	(\$20)	(\$47)	(\$59)	(\$59)	(\$161)
	Total	(\$77)	(\$178)	(\$224)	(\$224)	(\$613)
NET	Vessel/ Plant	(\$9)	(\$28)	(\$34)	(\$34)	(\$91)
	Vessel Crew	(\$6)	(\$27)	(\$34)	(\$34)	(\$88)
* A !! A !!	Total	(\$15)	(\$55)	(\$68)	(\$68)	(\$178)

<sup>\*</sup> Assumes "A" (pollock roe) season completed (40% BSAI pollock TAC taken).

<sup>\*\*</sup> Percentage figures in parentheses show inshore allocation of BSAI pollock TAC. Note: Results differ from Table 14 in the main text due to minor changes made in revisions of the final document.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 2. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: FULL Year 1992 / 18% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 23% BSAI Pollock TAC

SEC	CTOR		YEA	\R*		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
				(\$millions) <sup>1</sup>	= · ·	
INSHORE	Vessel/ Plant	\$77	\$104	\$131	\$131	\$389
	Vessel Crew	\$15	\$20	\$25	\$25	\$75
	Total	\$93	\$124	\$156	\$156	\$464
OFFSHORE	Vessel	(\$98)	(\$132)	(\$165)	(\$165)	(\$491)
	Vessel Crew	(\$35)	(\$47)	(\$59)	(\$59)	(\$175)
	Total	(\$133)	(\$178)	(\$224)	(\$224)	(\$666)
NET	Vessel/ Plant	(\$21)	(\$28)	(\$34)	(\$34)	(\$103)
	Vessel Crew	(\$20)	(\$27)	(\$34)	(\$34)	(\$101)
	Total	(\$41)	(\$55)	(\$68)	(\$68)	(\$204)

<sup>\*</sup>Percentage figures in parentheses show inshore allocation of BSAI Pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 3. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: PART Year 1992\* / 18% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 28% BSAI Pollock TAC

	<del></del>	<del> </del>	JAI TOHOCK I				
SEC	TOR		YEAR**				
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV	
			(	(\$millions) <sup>1</sup>			
INSHORE	Vessel/ Plant	\$39	\$79	\$106	\$106	\$288	
	Vessel Crew	<b>\$</b> 9	\$14	\$18	\$18	\$52	
	Total	\$48	\$92	\$124	\$124	\$338	
OFFSHORE	Vessel	(\$40)	(\$98)	(\$132)	(\$132)	(\$350)	
	Vessel Crew	(\$14)	(\$35)	(\$47)	(\$47)	(\$124)	
	Total	(\$54)	(\$133)	(\$178)	(\$178)	(\$472)	
NET	Vessel/ Plant	(\$1)	(\$19)	(\$26)	(\$26)	(\$62)	
	Vessel Crew	(\$5)	(\$21)	(\$29)	(\$29)	(\$73)	
	Total	(\$6)	(\$40)	(\$55)	(\$55)	(\$135)	

<sup>\*</sup> Assumes "A" (pollock roe) season completed (40% BSAI pollock TAC taken).

<sup>\*\*</sup> Percentage figures in parentheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 4. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: FULL Year 1992 / 18% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 28% BSAI Pollock TAC

SEC	CTOR		YEA	AR*		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
		(\$millions) <sup>1</sup>				
INSHORE	Vessel/ Plant	\$51	\$79	\$106	\$106	\$299
	Vessel Crew	\$10	\$14	\$18	\$18	\$53
	Total	\$61	\$92	\$124	\$124	\$351
OFFSHORE	Vessel	(\$64)	(\$98)	(\$132)	(\$132)	(\$372)
	Vessel Crew	(\$23)	(\$35)	(\$47)	(\$47)	(\$133)
	Total	(\$87)	(\$133)	(\$178)	(\$178)	(\$504)
NET	Vessel/ Plant	(\$13)	(\$19)	(\$26)	(\$26)	(\$73)
	Vessel Crew	(\$13)	(\$21)	(\$29)	(\$29)	(\$80)
	Total	(\$26)	(\$40)	(\$55)	(\$55)	(\$153)

<sup>\*</sup> Percentage figures in parentheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 5. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendment 23 (GULF OF ALASKA ONLY)\* with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: FULL Year 1992 / 18% RECOVERY Offshore Vessel Surimi

SEC	CTOR		YI	EAR		
		1992	1993	1994	1995	NPV
			<u> </u>	(\$millions) <sup>1</sup>	<u>i</u>	<u> </u>
IN- SHORE	Vessel/ Plant	\$10.4	\$10.4	\$10.4	\$10.4	\$36.9
	Vessel Crew	\$4.1	\$4.1	\$4.1	\$4.1	\$14.5
	Total	\$14.5	\$14.5	\$14.5	\$14.5	\$51.4
OFF- SHORE	Vessel/ Plant	(\$15.6)	(\$15.6)	(\$15.6)	(\$15.6)	(\$55.3)
	Vessel Crew	(\$5.3)	(\$5.3)	(\$5.3)	(\$5.3)	(\$18.8)
	Total	(\$20.9)	(\$20.9)	(\$20.9)	(\$20.9)	(\$74.1)
NET	Vessel/ Plant	(\$5.2)	(\$5.2)	(\$5.2)	(\$5.2)	(\$18.4)
	Vessel Crew	(\$1.2)	(\$1.2)	(\$1.2)	(\$1.2)	(\$4.3)
	Total	(\$6.4)	(\$6.4)	(\$6.4)	(\$6.4)	(\$22.7)

<sup>\*</sup> Inshore allocated 100% pollock and 90% cod in GOA.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 6. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: FULL Year 1992 / 15% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 23% BSAI pollock TAC

SEC	TOR		YEA	AR*		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
				(\$millions) <sup>1</sup>		
INSHORE	Vessel/ Plant	\$77	\$104	\$131	\$131	\$389
	Vessel Crew	\$15	\$20	\$25	\$25	\$75
	Total	\$93	\$124	\$156	\$156	\$464
OFFSHORE	Vessel	(\$92)	(\$123)	(\$155)	(\$155)	(\$461)
	Vessel Crew	(\$33)	(\$44)	(\$55)	(\$55)	(\$164)
	Total	(\$125)	(\$167)	(\$210)	(\$210)	(\$625)
NET	Vessel/ Plant	(\$15)	(\$19)	(\$24)	(\$24)	(\$72)
	Vessel Crew	(\$18)	(\$24)	(\$30)	(\$30)	(\$90)
	Total	(\$33)	(\$43)	(\$54)	(\$54)	(\$161)

<sup>\*</sup> Percentage figures in parantheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 7. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: PART Year 1992\* / 15% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 23% BSAI pollock TAC

					<del></del>	<del>r</del>
SEC	CTOR		YEA	\R**		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
				(\$millions) <sup>1</sup>		
INSHORE	Vessel/ Plant	\$49	\$104	\$131	\$131	\$362
	Vessel Crew	\$14	\$20	\$25	\$25	\$74
	Total	\$62	\$124	\$156	\$156	\$435
OFFSHORE	Vessel	(\$54)	(\$123)	(\$155)	(\$155)	(\$424)
	Vessel Crew	(\$18)	(\$44)	(\$55)	(\$55)	(\$150)
	Total	(\$72)	(\$167)	(\$210)	(\$210)	(\$574)
NET	Vessel/ Plant	(\$5)	(\$19)	(\$24)	(\$24)	(\$62)
	Vessel Crew	(\$5)	(\$24)	(\$30)	(\$30)	(\$76)
	Total	(\$10)	(\$43)	(\$54)	(\$54)	(\$140)

<sup>\*</sup> Assumes "A" (pollock roe) season completed (40% BSAI pollock TAC taken).

<sup>\*\*</sup>Percentage figures in parentheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 8. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: FULL Year 1992 / 20% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 23% BSAI pollock TAC

SEC	TOR	-18	YEA	\R*		
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
		(\$millions) <sup>1</sup>				
INSHORE	Vessel/ Plant	\$77	\$104	\$131	\$131	\$389
	Vessel Crew	\$15	\$20	\$25	\$25	\$75
	Total	\$93	\$124	\$156	\$156	\$464
OFFSHORE	Vessel	(\$103)	(\$139)	(\$175)	(\$175)	(\$519)
	Vessel Crew	(\$36)	(\$49)	(\$52)	(\$52)	(\$183)
	Total	(\$139)	(\$188)	(\$237)	(\$237)	(\$703)
NET	Vessel/ Plant	(\$26)	(\$35)	(\$44)	(\$44)	(\$131)
	Vessel Crew	(\$21)	(\$29)	(\$37)	(\$37)	(\$109)
	Total	(\$47)	(\$64)	(\$81)	(\$81)	(\$238)

<sup>\*</sup>Percentage figures in parentheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

Table 9. Net benefits (losses) to the inshore and offshore sectors for the operational years of Amendments 18/23 (BSAI/GOA) with Net Present Value of benefits discounted at a 5% real rate of interest.

Basis: PART Year 1992\* / 15% RECOVERY Offshore Surimi /
Base Year Inshore Harvest = 28% TAC

SECTOR		YEAR**				
		1992 (35%)	1993 (40%)	1994 (45%)	1995 (45%)	NPV
		(\$millions) <sup>1</sup>				
INSHORE	Vessel/ Plant	\$39	\$79	\$106	\$106	\$288
	Vessel Crew	\$9	\$14	\$18	\$18	\$52
	Total	\$48	\$92	\$124	\$124	\$338
OFFSHORE	Vessel	(\$37)	(\$92)	(\$123)	(\$123)	(\$326)
	Vessel Crew	(\$13)	(\$33)	(\$44)	(\$44)	(\$117)
	Total	(\$50)	(\$125)	(\$167)	(\$167)	(\$443)
NET	Vessel/ Plant	\$2	(\$13)	(\$17)	(\$17)	(\$39)
	Vessel Crew	(\$4)	(\$19)	(\$26)	(\$26)	(\$65)
	Total	(\$2)	(\$32)	(\$43)	(\$43)	(\$103)

<sup>\*</sup> Assumes "A" (pollock roe) season completed (40% BSAI pollock TAC taken).

<sup>\*\*</sup> Percentage figures in parentheses show inshore allocation of BSAI pollock TAC.

<sup>&</sup>lt;sup>1</sup>Columns may not add due to rounding.

# APPENDIX B

Application of Cost-Benefit Analysis to the

Alaska Groundfish Allocation Issue Compared With

Input-Output Analysis

### Cost-Benefit Analysis versus Input-Output Analysis

Benefit-cost analysis is a systematic method of identifying and measuring the economic benefits and costs of alternative public projects or policies. Benefit-cost analysis evaluates the relative merits of alternative resource allocations to achieve efficient allocation of resources. It also identifies, portrays, and assesses the factors required for rational economic choices which might otherwise not be apparent.

The economic benefits of a policy or project are the economic values of incremental outputs of goods and services made possible by the policy or project, measured as the change in consumers and producers surplus. The costs are the economic values of the incremental real resources used (opportunity costs). The net economic benefits are positive if the total economic value exceeds resource costs, i.e. if the change in net national benefits measured in terms of changes in consumer surplus and producer surplus is positive.

Both benefits and costs are valued by a common measuring rod: money. To the extent that different social objectives can be measured in money terms, cost-benefit analysis reduces evaluation of trade-offs among alternative policies to a numerical assessment. Values are sometimes imputed to benefits and costs when they cannot be directly measured by market prices. Money values of benefits and costs are also appropriately discounted over time to give them a common unit of measurement, since money values of net benefits vary according to the time period they are received and cannot otherwise be compared. That is, discounting gives the present values of net benefits received over the policy or project life and places

them in a common unit of account.

Social objectives cannot always be accurately measured in money terms. The distribution of income or benefits and costs from the policy or project is one prominent example. The role of cost-benefit analysis is then to identify trade-offs between economic and non-economic objectives and to compile indicators of the extent to which alternative social objectives are achieved. (Planning Branch)

Cost-benefit analysis is similar in form to financial analysis in that both assess the net benefits of an investment or policy. The concept of financial profit, however, is not the same as the net economic benefits of economic analysis. Financial analysis identifies only those benefits and costs faced by the production and decision-making unit, whereas net economic benefits measure the effect of the investment or policy on the fundamental objectives of the whole economy. These different concepts of benefits and costs are reflected in the different items considered to be costs and benefits and in their economic valuation. Benefits and costs in financial analysis are evaluated in monetary terms using existing market prices and taking into account taxes, subsidies, and other transfer payments. Cost-benefit analysis uses what are termed economic efficiency (or accounting or shadow) prices to remove the distortions in economic efficiency introduced by regulations or transfer payments. Moreover, benefits and costs of public policies or projects may not be exchanged in markets or valued by existing market prices. In this case, cost-benefit analysis requires that monetary values be imputed, usually by estimating what consumers are willing to pay for them or the real resource use of firms.

Input-output (I-O) analysis (and related methodologies generally referred to as

economic impact analysis) is used to determine whether a regulation would change regional income and other economic "activities", particularly revenues, expenditures, and employment. I-O was originally developed to describe the links among industries (in terms of expenditures and revenues), final expenditures (e.g. consumer expenditures and exports to markets outside the region), and primary inputs, such as labor, in a regional economy. The methodology is important in projecting how a change in expenditures by the final demand sector affects the distribution of income, employment, and revenues among a region's industrial sectors. (Edwards, 1990)

Cost-benefit analysis and input-output analysis focus on different types of information. Cost-benefit analysis focuses on economic value and real resource costs and on whether a public policy or investment will increase economic efficiency from use of public owned fish stocks. A significant difference between cost-benefit analysis and input-output analysis is that the former measures changes in net national benefits (consumer and producer surplus) while the latter ignores changes in consumer surplus and does not appear to be developed sufficiently to measure regional changes in producer surplus (Edwards, 1990)

The potential contribution of measures of indirect and induced effects from inputoutput analysis to measuring benefits in cost-benefit analysis is addressed in the following section, "Secondary Costs and Benefits".

## Secondary Costs and Benefits<sup>1</sup>

Secondary or indirect costs and benefits reflect the impact of a project or policy on the rest of the economy. The term is normally applied to any further increase in income as the additional rounds of spending following the policy reduce existing excess capacity in the economy. These secondary effects are also called a pecuniary externality, which relates to a change in the output or utility of a third party due to changes in the level of demand.

Economic multipliers, such as those of input-output analysis, are sometimes used to estimate secondary benefits. There is a very thin line between the practice of applying multipliers to project benefits and the practice of including secondary benefits in estimating the efficiency effects of a policy. Such secondary benefits are usually defined as the increases in the incomes of factors of production (such as energy, raw materials, labor, or capital) providing services to beneficiaries from the output of a project or policy, or providing services to those who supply inputs for the operation of a project or policy. Estimates of secondary costs and benefits are generally confined to cases with unemployed and immobile resources or persistent underutilized capacity.

In cost-benefit analysis, secondary costs and benefits do not exist when the analysis uses opportunity cost or willingness to pay as a measure of value. This occurs because all costs and benefits are adjusted to reflect their effect on national income. That is, the valuation

<sup>&</sup>lt;sup>1</sup> For further discussion, see: H.A. Adler, Economic Appraisal of Transport Projects; A.K. Dasgupta and D.W. Pearce, Cost-Benefit Analysis; J. Price Gittinger, Economic Analysis of Agricultural Projects, second edition; E.J. Mishan, Cost-Benefit Analysis, fourth edition; Planning Branch, Treasury Board Secretariat, Canadian Government, Cost-benefit Analysis Guide; L. Squire and H.G. van der Tak, Economic Analysis of Projects.

of increased output will already reflect the gains to suppliers and processors. To add a pecuniary externality would be to double count. Moreover, pecuniary effects reflect only transfers from one section of the community to another, via changes in relative prices. They are essentially transfers in economic rents received by factors of production in less than perfectly elastic supply. In essence, such distributional effects merely make some producers or consumers better off by making others correspondingly worse off. (Such distributional effects are often revealed by changes in the relative prices of factors of production or by changes in asset values.) In sum, when resources are fully employed and mobile, an allowance for secondary costs and benefits is needed only if the estimate of economic effects is made using market prices which do not properly reflect opportunity costs or willingness to pay.

The existence of unemployment occasionally leads analysts to augment the benefits from public policies or projects. The reason given for augmenting benefits in these circumstances is that if labor which would otherwise be unemployed is used on a public project or for a public policy, the expenditures of the newly employed workers may raise employment and incomes in other sectors of the economy where labor and other factors of production would otherwise be involuntarily idle, and so on in a chain reaction. The total effect of this chain reaction of spending can be summarized in the multiplier analysis of input-output analysis.

The problem with using multipliers or calculating secondary benefits in circumstances where resources are unemployed is twofold. First, in cost-benefit analysis one needs to eliminate consequences which are common to alternative courses of public policy. Such

consequences are irrelevant to the decision-maker who has to choose among alternative public policies. The alternative to undertaking a particular public policy may be some other form of government expenditure, which would also employ otherwise-idle resources and have multiplier effects on income and price levels. In a broader context, reductions in taxes or increases in the money supply would similarly be alternatives to undertaking particular public expenditures. These policies would also have expansionary effects on income, employment and price levels. For these reasons, it is typically recommended that the analyst avoid adding multiplier effects or secondary benefits to cost-benefit analyses of public policies in circumstances where unemployment is widespread.

The second problem with using multipliers or calculating secondary benefits when resources are unemployed or immobile is again double-counting, as discussed above. To illustrate, consider the case where a policy or project may give employment, which is regarded as an additional benefit. If, however, the labor involved would have been employed on other work, its employment on the project is a cost, not a benefit. If it would otherwise have remained unemployed, this is fully allowed for in the use of opportunity costs of labor (shadow wages), and no additional benefit is involved. Moreover, labor employment is never counted as a benefit, since it represents a real resource use and hence is a cost (reducing net national benefits). In sum, these types of secondary benefits can therefore be disregarded if the direct benefits have been estimated properly.

# APPENDIX C

Details of Derivation of Inshore Harvesting and Processing

Costs and Returns Data

#### Inshore Data Sources

Basic cost and earnings, and catch and processing data for the catcher vessels and shore-based processing plants comprising the inshore sector come from a number of sources. Representative operational profiles used in the economic impact, input-output analysis of the proposed inshore/offshore allocation alternatives (North Pacific Fishery Management Council, 1991) were determined to contain the best information available on inshore harvesting and processing costs. The operational profiles provide itemized cost, earnings and production (harvests by species for catcher vessels and processed product amounts for processing plants) data representative of each type of catcher vessel and processing plant making up the inshore sector. The operational profiles were developed using economic data for 1989, which were collected through an industry survey referred to as the "OMB Survey," together with NMFS records on catch and processing statistics (North Pacific Fishery Management Council, 1991). We assumed that annual harvest and production costs, as well as catch shares for each category of catcher vessel, round-weight delivery shares for each category of processing plant, and the product mixes over the 1992-95 period would be the same as those found in the operational profiles. This allowed us to construct representative 1992-95 operating budgets for each component of the inshore processing sector. Costs reported in the operational profiles were converted to constant 1991 dollars using the Producer Price Index.

The number of inshore catcher vessels for each gear-area combination was taken from the "Economic Status of the Groundfish Fisheries off Alaska in 1991," by Kinoshita et al,

1991. The exvessel prices considered most reliable for this analysis are also from Kinoshita et al, 1991.

### Number of Inshore Vessels and Shore-Based Processing Plants

Because the operational profiles provide representative cost, earnings and production data for each typical catcher vessel and processing plant operating in the inshore sector, it was necessary to estimate the actual numbers of catcher vessels and plants of each type to calculate sector-wide measures of net benefits. In the analysis, the change in producer surplus for each representative operating unit, given the implementation of the Council's proposal is multiplied by the number of units of that type to estimate the change in net benefits for that segment of the inshore sector. The change in net benefits for the sector is the sum of the change in net benefits across segments.

The operational profiles categorize inshore catcher vessels by type of gear and area of operation: two areas, BSAI and GOA, and three gears, longline, trawl and combination (trawl, pot and longline). To project annual aggregate catches and corresponding costs and earnings for the harvesting segments of the inshore sector it is necessary to estimate the number of vessels in each category over the 1992-95 period. The numbers of vessels assigned to each catcher vessel category for 1992-95 are based on 1990 vessel accounts presented in Kinoshita et al, 1991.

Because Kinoshita et al reports the number of inshore catcher vessels by area, gear and species harvested there has the potential for double-counting when aggregating across species to estimate the number of vessels in each gear-area category and when each vessel

may harvest more than one species. To account for this, the numbers assigned to the longline categories in the analysis were based on only those vessels using longline gear to harvest cod, since longline vessels in the operational profiles all harvested cod but not necessarily pollock. Likewise, the numbers assigned to the trawl categories were based on only those vessels using trawl gear to harvest pollock, since the trawl vessels in the operational profiles primarily harvested pollock. Kinoshita et al does not provide unique vessel counts by area. Because we cannot differentiate between vessels that operate in one or both areas, we assume that vessels operate in only one area.

Kinoshita et al also does not differentiate between combination vessels with trawl harvests of pollock and cod and vessels that are strictly trawlers. Reliable information on the number of combination vessels and the number of trawlers was not available, but it was known that during 1990 trawlers greatly predominated. Hence, in the BSAI, the fifty vessels harvesting pollock with trawl gear during 1990 from (Kinoshita et al) was apportioned into two combination vessels and forty-eight trawlers. In the GOA, the seventy-seven vessels with trawl harvests of pollock in 1990 was apportioned into four combination vessels and seventy-three trawlers.

We assumed that the number of inshore catcher vessels in each category in 1990 had sufficient capacity to harvest the additional pollock and cod made available to the inshore sector. Hence, the number of vessels in each category remained constant over the period of analysis. If this assumption did not hold, the net present value calculated for catcher vessels in the cost-benefit analysis would be reduced by the amount of the investment costs for any newly constructed vessels required to harvest the additional pollock and cod made available.

Such newly constructed vessels represent a real resource cost to the nation, while the purchase and relocation of existing vessels from other areas merely represent a transfer of existing economic resources from one use to another. In addition, to the extent that average variable and fixed costs of any new vessels are higher (lower) than those of the vessels currently in the fishery, net present value would drop (rise) from that estimated under the assumption of sufficient harvesting capacity in place.

The operational profiles categorize shore-based processing plants by production capability and location. For both the BSAI and the GOA, there are plants that: (1) primarily process traditional species; i.e., crab, salmon and halibut, and produce some pollock and cod products other than surimi; and, (2) plants that rely more heavily on pollock and have surimi processing capability. We designate the former traditional plants and the latter groundfish plants in the analysis. According to the operational profiles, traditional plants in the BSAI process cod but not pollock. Consequently, they are omitted from the analysis since there will be no change in inshore cod availability in the BSAI with the implementation of the Council's allocation proposal.

The numbers of shore-based plants assigned to each processor category for 1992-95 are based on 1990 data that were provided by the office of Trade and Industry Services, Northwest Region, National Marine Fisheries Service, Seattle. As in the case of catcher vessels, we assumed that 1990 shore-based processing capacity was sufficient to handle the increased landings of pollock and Pacific cod expected with the new allocations. Hence, the number of shore-based processing plants in each category remained constant over the period of analysis.

## Allocation of Total Catch and TAC under Alternatives 1 and 8

Given the expected aggregate pollock and cod harvests for the inshore sector for 1992-95 (Tables 1 and 2) it then became a matter of: (1) distributing the amount of expected harvest of each species by the inshore sector in each area, in each year, across the different types of catcher vessels in each area, allowing for discards; and (2), distributing the harvests of catcher vessels across the different types of processing plants in each area.

The approach adopted apportioned the total inshore, discard adjusted, harvest of pollock and cod according to each representative vessel's share (from the operational profiles) of the total harvest of each species by all the representative vessel types in that area. This can be expressed as:

$$TC_{ijk\epsilon} = \frac{RC_{ijk}}{\sum_{j} RC_{ijk}} TA_{jk\epsilon}$$

where:  $TC_{ijkt}$  = total catch of species i by all catcher vessels of type j in area k, year t  $RC_{ijk}$  = catch of species i by representative catcher vessel j in area k  $TA_{ikt}$  = quantity of species i available to the inshore sector in area k, in year t. and,

$$TA_{ikt} = \sum_{j} TC_{ijkt}$$

Total harvests for each category of inshore catcher vessel were then divided by the number of vessels assigned to that category to derive 1992-95 catch projections for the

representative vessel in each category.

The same approach was used to distribute total annual harvests over the 1992-94 period across the different types of shore-based processing plants in each area.

$$TD_{ijkt} = \frac{RD_{ijk}}{\sum_{j} RD_{ijk}} TA_{ikt}$$

where  $TD_{ijkt}$  = total deliveries of species i to plants of type j in area k year t  $RD_{ijk}$  = deliveries of species i to representative plant j in area k.

Total deliveries for each category of shore-based processing plant were divided by the number plants in that category to calculate 1992-95 raw material requirements for the representative processing plant in each category.

# North Pacific Fishery Management Council April 22, 1992

Dr. Morton Miller is the top economist at the National Marine Fisheries Service, headquartered in Silver Spring, Maryland. Dr. Samuel F. Herrick holds the title of Industry Economist from the National Marine Fisheries Service located in La Jolla, California.

#### **Presentation**

Dr. Miller: My name is Mort Miller and I'm with the National Marine Fisheries Service in Washington...actually Silver Spring. And I have with me a colleague, Sam Herrick, who is with the Southwest Fisheries Center in La Jolla. We're two people who were part of a team that authored the study that's under discussion now. And I think much of what we have in our brief description of the study has been sort of presented both by the gentlemen from the AP and the SSC committee. But let me try and put the study in context and just briefly restate what it is we were attempting to do in the study. Why...and just briefly something about the results.

The reason we undertook this study was that the information that was provided in the SEIS, the Supplemental Environmental Impact Statement, was judged to be insufficient in terms of explanations of what the economic outcome would be. Now the economic outcome we're talking about is what would be the effect of this allocation proposal on net national economic benefits in terms of changes of economic efficiency. Now economic efficiency is a criterion that is required to be reviewed both by at least one of the National Standards and by Executive order 12291. We were asked to undertake this study by the Administrator. This was in early December. There was of course a very short time frame to conduct the study given the time table for the approval process. We determined that there would be first draft of this study completed in February prior to the decision, which I think came down in March, and then a final version of the study subsequent to the initial draft would be finished in April. We did met both deadlines and submitted a preliminary study in on February 14. And the final study we were able to complete and distribute I think on April 14.

Time frame was critical to the approval process. There was a copy of this study was submitted to the Administrator, Dr. Knauss, on the in February, prior to the decision. A limited time limited the scope of the study, of course. We couldn't do a grand study of this type. To cover all the bases probably would take anywhere from six months to a year. So we did limit the scope. And the object as we determine was to estimate the changes in producer surplus identifying producer surplus as the economic benefit. We adopted a simple standard cost/benefit approach.

NMFS Cost/Benefit Presentation



In a determinations we decided that to attempt to do consumer surplus was beyond the scope of the time that we had allowed for this study and, that in any case, much of the product involved in exported and would involve consumers in another country. This would not be part of the benefits that would be counted in a particular...or in a cost/benefit study of this type.

The problem before us was a fairly complex problem because we had to deal with two different sectors with two different...quite different types of operations. There were some key variables which were sensitive to the outcome. These were product recovery rates, prices, product mix, discards. We used what we could determine was the best data available at the time the study was done. Most of the information we used had already appeared as part of the Supplementary (sic.) Environmental Impact Statement or as part of the public record; there was a voluminous public record as a result the hearings and as a result of the various comment periods. So we were able to collect a fair amount of data.

We were limited in some aspects of the data. We had a broader range of data for the offshore sector than we did for the inshore operations.

As I stated, our aim from this data was to conduct this straight forward cost/benefit analysis in which we could calculate the net returns which simply, quite very...to over simplify perhaps... a question of calculating in a base period, a base year, what the net returns would be—this was revenues minus costs—and what they would be in the conditions of the various allocations; thirty-five, forty, forty-five percent. And in addition, what would be the outcome of adding the community development quotas.

As you probably, well, as you I'm sure read in the study, we did produce results. The results indicated that there would be a net loss in economic efficiency which you can translate as a net loss in a net loss to U.S. society as a whole as a result of these allocations. Aim was to provide these statistics on the change of economic efficiency. It did not go beyond that. It did not directly address distributional aspects of the issues. This was done in the SEIS in the input/output study in which measures were provided for changes of jobs in one sector to another.

I guess that pretty much sums up what we did and why we did it. I think probably it would be best if we just opened it for questions.

#### **Ouestions**

Dr. Pereyra: Mr. Chairman, I have a couple of questions to offer here. And the first question has to do with the statement you made that you had a broader range of data for the offshore sector than you did for the inshore sector. Would you elaborate on that a little bit as to what you are referring to here.

<u>Dr. Miller</u>: Yeah, we had fairly good records of vessel operations in the offshore sector. We had (correct me if I'm wrong) I think the records for sixty-four vessels from which we were

NMFS Cost/Benefit Presentation

- 2 -

OT.



able to draw a cross section of results and it made it much more comfortable working with this broad database. For the inshore sector let me ask...Sam concentrated a lot of his work on the inshore sector and can explain more of what we had in that sector.

<u>Dr. Herrick:</u> Yes, as Mort indicates, we did have a cross section of vessel level data for the offshore sector. For the inshore sector we relied on what are referred to as the input/output or I/O profiles that are mentioned in the SEIS. And these profiles were essentially an operating budget for each of the representative catcher vessels and shorebased processing plants that entered into the allocation consideration. And consequently all we did have were essentially point estimates that was very difficult in some instances to do a the uncertainty or risk analysis as thoroughly on the inshore sector in a sense as was done on the offshore sector.

<u>Dr. Pereyra</u>: Is that because the inshore sector did not give you as complete of a data base as you had for the offshore sector?

<u>Dr. Herrick</u>: We relied almost entirely on secondary data for the inshore sector. The data was developed, as I understand it, using the OMB survey data and that was then used, these profiles were then used in input/output or economic impact analysis in the SEIS.

<u>Dr. Perevra</u>: I'm sorry to hear that the inshore sector didn't respond as completely as the offshore sector.

<u>Dr. Herrick</u>: No. Well, let me also indicate there was a concern expressed by the AP, I believe, earlier that it would be desirable to have more interface between industry and modelers in this type of situation. And we did have excellent interfacing, I consider, at the outset of this study. Unfortunately, at the outset this study to do this, they tried to collect this data through the OMB survey and that took a quite a while to get that initiated, as I understand, and difficult to get the returns that were requested. Again, I want to point out that I thought we had some excellent interfacing through some intermediaries at the Alaskan Center within the National Marine Fisheries Service in trying to obtain data from both the offshore and the inshore sectors.

<u>Dr. Pereyra:</u> A concern I might have there, though is that the extensive interfaces and so forth can also lead to situations where biases can be introduced also and so forth so when people try and see how results are flowing and what the end results that they might want. I'm not saving that this happened in this case, but that is a concern.

<u>Dr. Miller</u>: Well by and large, you know, the information we relied upon was all information that was already in the public record and as I mentioned, you know, the limited amount of time we did produce a document in sixty days and the final document represents just a refinement more or less a cosmetic refinement of the original document that was used earlier on. And there was simply no time to... given time, you know, you can dig out a lot of data, but, you know, we had sixty days.

Dr. Pereyra: I'm not finding fault.

NMFS Cost/Benefit Presentation



<u>Dr. Miller</u>: I did not mean to sound defensive, but what I'm saying is I don't think we can pin point anybody for lack of cooperation or anything like that. It was just a matter of what was readily available, and we used it.

<u>Dr. Perevra:</u> No, I think its a nice document. I don't think its necessarily a cosmetic treatment of the data. The other question I had regarded the product recovery rates. The Chairman of the SSC reported that if there was a variable that was a key variable that it would probably be appropriate to scale that variable in the Monte Carlo analysis, while if you had variables that weren't key it wasn't as important. Product recovery rate apparently was a key variable in your analysis and yet you did not scale the product recovery rates for the inshore sector at all and yet you also admitted earlier that you did not have as complete set of data as you would like to have. I'm curious as to why that variable is not subjected to a range of values in your Monte Carlo analysis.

<u>Dr. Herrick</u>: I agree that the recovery variable in pollock surimi recovery rate variable is highly, er results of the analysis are highly sensitive to value that you use. We did have enough information we felt based upon the recovery rates that you derive from the weekly processed product reports and we were able to put a range on the average the offshore average of eighteen percent the National Marine Fisheries Service used based upon those weekly processed product reports the data from those reports so that we were then able to specific what is known as a triangular distribution of the offshore surimi recovery rate. We felt that we didn't have comparable or sufficient information to specify a triangular distribution for the inshore sector. The surimi recovery rates pollock surimi recovery rates so we set it at twenty percent level it was just deterministic.

<u>Dr. Miller</u>: Yeah, we were forced into it. We didn't have anything to go by to put other bounds on it.

<u>Dr. Pereyra</u>: Could it have been a higher or a lower number?

Dr. Miller: I don't know.

Mr. Alverson: Gentleman, I haven't had a lot of time to read this in depth as we just received it this week, but I had a couple of questions on page thirty-two. Again on thirty-four, where it talks about hook and line average costs of pollock. Does that play an important part of costs averaging in this analysis?

<u>Dr. Herrick:</u> I wouldn't say that hook and line catches of pollock are significant. I apologize, I don't have a lot of familiarity with the, although now I have a greater familiarity with this fishery and the different sectors, but I would suspect that there is not much hook and line landed pollock, at least in the Bering Sea, probably more in the Gulf.

Mr. Alverson: I can't imagine it being used for much more than bait. I, if its significant, we've allocated this to the wrong gear group.

On page thirty-five you have, it says the estimated annual processed production in ah, for three scenarios. And for 1994-1995 and then it has baseline. What's the baseline based on? What... is that on thirty-five percent on the lowest percentage?

NMFS Cost/Benefit Presentation

-4-



Dr. Miller: That's without allocation.

Mr. Alverson: So that would be based on 19...

Dr. Miller: 1990 production.

Mr. Alverson: Is that ninety-one or 1991? 1990?

Dr. Miller: 1990...1991, I'm sorry. 1991.

Dr. Herrick: Well let me...can I follow-up on that a little bit?

Dr. Miller: Yes.

<u>Dr. Herrick</u>: Its based upon data was collected during 1989, 1990 and data that was reported... er published in 1991. But we tired to use 1991 as a base year or a baseline.

Mr. Alverson: The executive summary, the variances were talked about a loss of one hundred and eight-one million dollars, is that fluctuate from this baseline, 1991 assumptions?

<u>Dr. Miller.</u> That's the difference between the year of the allocation and what it was prior to allocation. Yeah.

Mr. Alverson: Under your assumptions though, 1991 is the the last year before allocations? Is that right?

Dr. Herrick: Yes.

Mr. Cotter: Well welcome to Alaska gentleman.

Dr. Miller: Thank you.

Mr. Cotter. What is the definition of economic efficiency? (Five second pause.) In layman's terms.

Dr. Herrick: O.K. In, with regard to a cost/benefit analysis.

Mr. Cotter: As you have used it in this document.

<u>Dr. Herrick</u>: It implies the highest valued use of these resources. Were they would generate...well in this case we're looking at a proposed allocation and we're trying to measure what the change, again, this notion of producer surplus, before and then after the allocation over the full period of the allocation.

Dr. Miller: Producing the highest net value for a given set of inputs.

NMFS Cost/Benefit Presentation

- 5 -

Mr. Cotter: Profits?

<u>Dr. Herrick</u>: In this case it's a measure of profitability in a sense. Yes. Although, the cost/benefit analysis is a economic analysis and not a financial analysis and the distinction is that certain items that would show up on a financial analysis as private costs do not necessarily show up on the economic analysis, the cost/benefit analysis. I could give you some examples. Taxes would not. They show up as a private costs, but they don't show up as a economic costs because its simply transfering part of the returns to another sector of society. Debt service, or interest payments would not show up on a cost/benefit analysis but would on a financial analysis.

Mr. Cotter. The hundred plus million dollar figure, I forget what it is, hundred sixty-eight or whatever.

Dr. Miller: One hundred and eight-one.

Mr. Cotter. O.K.. Is that that your estimate of net loss in profits that would occur during this time period.

<u>Dr. Miller</u>. That loss in this net economic returns in a sense of being a loss to society...which is basically profits. Yes. And this is the net present value of over the life program. Its three and a half years. That's assuming thirty-five percent in the "B" season this year and then forty percent and then forty-five percent in the out years.

Mr. Cotter. Does this study place any value on relative cost or benefits of social impacts?

Dr. Miller. No. It wasn't the function of this study to address the social impacts.

Mr. Cotter: Or conservation?

Dr. Miller: No. This was outside the scope of this.

Mr. Cotter: Is it your position that the definition of economic efficiency as used in the National Standards is profit?

<u>Dr. Miller</u>: Its as I said, you know, producing the greatest value for a given quantity of input. So in that sense, I guess you could say its similar to a profit. Yeah, Yeah, in that sense, you could say, yes its a surplus after you deduct costs from the revenues. The differences between that and a private profit would be the type of cost that you deduct from your revenues and the type of costs that go into your accounting.

Mr. Cotter: Well, you know a couple of years ago we had a spent a lot of time talking about pollock roe stripping and it kind of sounds like what your saying is that using your definition of economic efficiency that the greatest return to the nation would occur through roe stripping because you could maximize your profit much more rapidly and make more. Is that accurate?

<u>Dr. Miller</u>: Its accurate. That's the greatest economic return. But you know there are other factors to take into account in any type of policy decision. It may not be good policy. It may

-6-

NMFS Cost/Benefit Presentation



not be good overall for the nation. But in terms of economic returns and its always looking at...there are no value judgments in this economic efficiency concept.

Mr. Cotter: Well see that's the problem that I have and I don't want get into a big debate with you but as I understand National Standard seven the definition of economic efficiency is not necessarily limited to profit. There is a wise use concept that enters into it as well and that begins to take into account social and conservation issues and if the Commerce Department's definition now has changed or is indeed a economic efficiency is profit I think its important that that be clearly articulated.

Dr. Miller: Yeah, I'm not prepared...

Mr. Pennover: Just to bail Mort out a little bit, Mort is hear to deal with the economic part of the decision. He is not here and his report does not deal with the social factors as reported in the Gulf part of the decision or other conservation things you have pointed out. Net national benefits includes economic, social, conservation and a host of things that could be brought into play. The Administrator's decision and the letter he sent you back had to do with the size of the economic costs and the fact that he did not think that social benefits outlined relative to that magnitude of net costs were compelling. Mort is simply here to present you with the study on the economic side of that decision.

Mr. Cotter: And Mort, I apologize.

Dr. Miller: No. You don't need to. Really.

Mr. Cotter. The AP spoke to symmetry. And I think one of the things they touched on was how crew shares are counted as a benefit on the at sea and I think that processing employees on the shore side end are counted as a costs. Can you explain the reasoning that accompanies that?

Dr. Miller: Well crew shares were counted as a cost. Crew shares were looked at separately from other costs. You know, we had to calculate crew share as a basis for labor costs. But labor costs were deducted from the revenues on both sides of the equation. We show in the results a break down of these benefits, you know, partly for the vessel and partly to the crews. In that sense, what we are showing there is really a distributional effect and has no impact at all on the bottom line. Our bottom line which shows the net change in these producer benefits includes deductions of the labor costs both for the share guys and also for the wage guys. I guess in order to sort of get at this issue of how much of this actually stays in the U.S. and how much goes abroad, we didn't address that directly but you can infer form the looking at the calculation of how much of those net national benefits can be represented as returns to crewmen, you know, assuming that crewmen are all U.S. citizens, or residents of the U.S. anyway that you know, these are benefits that would stay in the U.S. But the bottom line on this analysis does reflect reductions from revenues from all labor costs, whether they were wage costs or share costs. And we really, that's one of the short comings in our presentation, is that we really that really doesn't come across clearly in the report itself and I understand how this confusion can arise.

NMFS Cost/Benefit Presentation



OΤ

Mr. Cotter: I'm sorry, I'm still confused. Can you turn to page A-3, which I think is where the table is in here?

Dr. Miller: A-3. Yeah.

Mr. Cotter: So, maybe you could walk down the 1992 pollock and tell me the difference between the inshore category and the offshore category and how you calculated that? I don't mean the exact formula, but just what the reasoning is. How that, how those numbers are generated.

Dr. Herrick: O.K.. I'll attempt to do this. And I think we generated then propagated a lot of confusion over this issue of labor costs yesterday, unfortunately. I think the asymmetry were talking about here has to do with the fact that for the offshore sector we had a nominal costs measure for labor and we made the assumption that all the labor in the offshore sector was paid using a share basis. And we determined that share by taking the expenditure—labor expenditure—and and dividing that by total or gross revenue. That gave us the labor share which is reported to be twenty-three percent in the document. Now for the inshore sector we assumed that crew on the catcher vessels is remunerated through a share system. We further assumed that labor in the plant is not; they're paid a wage. So consequently you have both fishermen or crew, fishing crew, and line workers on the offshore, in the offshore sector both paid through a share system. But only the crew on the catcher vessels paid on a share system in the inshore sector.

Now what this means, what this means then is that the crew or that labor that's paid under a share system is going to share in some of the economic rents from fishing, or from the processing operation. This would be, in our case we assume that the change in going from the case, the baseline case, to a the case where we allocation according to the proposed allocation scheme, the change in labor costs or labor share, where they, in this case its just a change in the labor share. The dollar represents a change in the amount of overall rent that accrues to labor. And if you look at this table one on page A-3 there that your referring to, that amount is reported as vessel crew. Alright. So if we're going down the 1992 column, the fourteen million dollars to the inshore sector represents that amount of the the change in economic rents accruing to the inshore sector for 1992; that amount that goes to labor. To the share system.

Mr. Cotter: Fourteen million dollars.

<u>Dr. Herrick:</u> Fourteen million dollars. The balance, forty-nine million dollars—which is the balance of the change in economic rents to the inshore sector—then goes to the plant.

Mr. Cotter: Does that include plant labor—wages paid to the workers.

OΤ

Dr. Herrick: That's right. No excuse me. It would not include wages. Wages are not, they don't, wage labor does not share in any economic rent.

Mr. Cotter: So conversely so, on the offshore side, the vessel crew because its share labor this shows as a loss to that sector. That's why you have twenty million dollars in brackets. that's the amount of labor loss.

NMFS Cost/Benefit Presentation

-8-



<u>Dr. Herrick</u>: The amount of rent—its a negative rent in this case—that the offshore crew lost under the allocation.

Mr. Cotter: Now if the shoreplants paid their people by a share basis, you know a percent, instead of an hourly wage, then that forty-nine million dollar figure would be increased.

<u>Dr. Herrick</u>: No it would be decreased. And the vessel crew figure would go up. They would be kind of offsetting.

Mr. Cotter: Would the total be greater than sixty-two million?

Dr. Herrick No.

Mr. Cotter. It would be a wash.

<u>Dr. Herrick</u>: Yes. There is some confusion. Again, the labor, the payment to labor is not a benefit. Its an economic costs in an cost/benefit analysis. This idea that we're counting labor as a benefit somewhere along the line is not right.

Mr. Cotter. O.K.. Thanks.

<u>Dr. Herrick</u>: Just to follow up on that a little bit, this has been, as I have indicated, a source of confusion. But the reason we did break out the that portion of the rent or that amount of the rent, the change in rent that goes to the crew, is because we are aware that there is a lot of foreign equity in this fishery. We assume that most of the crew would in turn on the other hand, getting back to the foreign equity issue, then you have a leakage of these rents outside the United States. Whereas, you know, were attempting to point out here somewhat that on the other hand that crew which would presumable be mostly U.S. citizens, that money would remain inside, within the nation.

Mr. Cotter. Are you aware that I believe the law allows those vessels to have twenty-five percent non-resident aliens as their crew? Twenty-five percent of their crew can be non-resident aliens.

<u>Dr. Herrick:</u> We were aware of that but we didn't statistically or directly, you know, deal with that in the analysis.

Dr. Miller: Nor did we deal with the ownership as far as the plants were concerned.

Mr. Dyson: Mort, on the product recovery rate. I'm kind of confused, maybe you could help me out, how you got the exact figure and you didn't know what was going in—no measurements. You got the recovery on the other end but you didn't know what the discards were or how much fish it took to get into that finished product. How did you get that percentage?

NMFS Cost/Benefit Presentation



<u>Dr. Miller</u>: We did have discard rates. We did use discard rates. They were taken into account in the analysis. The product recovery rates were, they came from, we did have some source of information for that—wasn't that right Sam?

Mr. Dyson: But I wondered if you never measured it going in—you didn't know how much fish came aboard—nobody measure it so how can you tell on the other end?

<u>Dr. Herrick</u>: Can I speak to that? In terms of the—what we had for 1991 were landings data from the PacFin management database. At the time we initiated this study that was what we considered the best available data on the amount of fish that was being received by processors. Now that's landings data. And of course, we had to make some type of adjustment to upscale that up to the catch and we did use the observer discard rates to back calculate landings to catches for 1991.

Mr. Dyson: I think that is not exactly accurate because the observer wasn't able to do the whole. He wasn't able to tell you exactly because he's only one observer so — I would think that would be room for error.

During the joint venture days when we were delivering fish to the foreigners we measured it and we also had an agent right there that the pens that made the volumetric measurement was exact so that's the only way we could do it satisfactory for the industry and I think possibly that will have to be done the other way too.

Mr. Alverson: Gentleman, I think some confusion on this labor thing may come in the executive summary where, I think on the third page it talks to crews and says offshore crews and it speaks to crews inshore. Are we, when you talk about the inshore fleet are you also including the costs of the processing labor shoreside in with the harvesting crews inshore? There's the harvesters, deliver the fish shoreside and then there's the processors that are paid by the hour. Is that all one is that this dollar figure that's in this executive summary? One hundred and sixteen million. Inshore fleet gain.

Dr. Miller: No. That's the gains to the...

Mr. Alverson: Just the harvesters.

Dr. Miller: Just the harvesters only yeah.

Mr. Alverson: So when I look at this, the action that we passed and was instituted, when it says there's this forty-five million dollars that is lost to the labor component at sea, is that based that the thirty-five percent level or what are the two options other than the baseline does that represent? The remaining forty-five million dollars; there's crews of offshore lose a hundred and sixty one million dollars; inshore fleet gains a hundred and sixteen million. That means that somewhere in the system we're short forty-five million bucks. Under what scenario is that taken place.

<u>Dr. Miller</u>: That's the range of the program. That's over the three and a half year. It's the net present value.

NMFS Cost/Benefit Presentation

- 10 -



Mr. Alverson: So that goes from your baseline 1991 to when things would relate to—go to forty-five percent?

<u>Dr. Miller:</u> That's right. It includes three and a half years. The rest of '92, '93 and then '94 and '95. The thirty-five for the half year, the forty for '93 and then the forty-five for '94 and '95.

Mr. Alverson: And this summary is for the end of '95.

<u>Dr. Miller</u>: This summary, the net present value, is for all those years. The totality of the loses for the whole period.

Mr. Alverson; Its the three year additive for each year.

Dr. Miller: That's right.

Mr. Mace: Well I haven't studied this thing in great detail and if I did I probably wouldn't understand but obvious these people have spent some considerable time and thought on this and with the questions that the Council has and also the AP and on your part I sense that you had some concerns about the shortage of time that you had to prepare this and the different data bases on the two sides and such. I'm wondering if this is all there is. Are you going to have enough time to massage this again and are attempt to clarify some of the questions we have or is this the end of it?

<u>Dr. Miller.</u> As far as we're concerned we have no present plans to continue work on this. Techniques that are used the information that we have the models that we have Are all available to Council staff. If they want. We don't have any plans to continue. No.

<u>Dr. Pereyra:</u> This analysis that you did, I believe that I heard comment that this is the results are sort of linear and in that regard, did you have any opinion as to what the results might be if in fact you had if you went to the extremes. You went to forty-five percent in the inshore—thirty-five to forty-five percent—but what if you had zero percent inshore? In other words the entire resource was harvested offshore. Given the fact that you make reference to that there is a more efficient sector offshore and that's what's resulting in the negative producer surplus.

Dr. Miller: You're asking if there was totally an offshore fishery.

<u>Dr. Perevra</u>: If we had a totally, if we went ahead and had a totally offshore fishery. No onshore processing at all of the resource.

<u>Dr. Miller</u>: It appears that the results would be positive.

Dr. Perevra: I'm not suggesting that, of course.

NMFS Cost/Benefit Presentation

- 11 -



Mr. Pautzke: I wish this didn't have to be brought up in this inshore/offshore thing. Its such a sensitive thing, but the discards are going to be a big issue to this Council. Whether its in context to inshore/offshore or if you were at the bycatch conference that we had in Newport, Oregon in early February. Bycatch is becoming a big issue with the industry, whether its a prohibited species or whether your not taking the small fish because you can't run them through your machines and so on and so forth. We're going to have to deal with it in this Council. I see it, dealing with this whole discard issue in the next two years or so, and it is an issue that has been brought up in context of the inshore/offshore thing. And we get these reports out of the National Marine Fisheries Service on how much pollock was discarded by such and so sector of the industry and everything. And I guess in the past the impression I have gotten from economist and this is more during the roe stripping thing, is that discards are O.K. if you're getting a high enough value out of what you retain out of the catch so therefore its O.K.. And I note that in your, on page twenty here, figure one, you have a flow diagram. And the flow diagram depicts the total allowable catch and allocation to the inshore and offshore fleet and then it goes down and through a series of steps and you've got a square, you've got rectangles there for harvest and then they kind of have arrows going into a circle in the middle which says discards on it. Normally, when I've set up models in the past there's arrows going in and arrows going out and I guess cost and benefits and economic things flowing every which way. This seems to end right in the middle there. It doesn't seem to go down to anywhere in your net benefits statement. What should the Council be doing in its economic analysis of discards—which is a big issue in a lot of different context? What should we be doing in terms of looking a national net benefits or costs of discards? How do we treat that? It can't just be treated in terms of well we got the highest value out of this part of the catch so everything's O.K. guys. Its got to have a costs somewhere in the equation. And I don't know if that's a non-quantifable social costs or what it is, but could you give us some discussion on that so that...because we're going to be doing more analysis outside of this amendment package on other issues and I think we need to ventilate this issue a little bit. From your perspective as economist.

Dr. Miller. In terms of the cost/benefit analysis, it came into play here by just reducing the amount of harvest that was available for processing. The assumption was that if there was a higher valued use for what was discarded it would have been done. This way there was no economic value for... you're asking...

Mr. Pautzke: So you don't take two hundred thousand metric tons of discards and do anything with it as a costs? Its just that you look at the part that was retained and then you apply your values to that.

Dr. Miller: The costs of handling that, or whatever is done of that, you know, would be part of the costs figures in this type of analysis. I don't know. I would have to sort of think about ways to approach, analyzing what would be the best use of of the bycatch or of the discards. There's been a lot of work done along those lines. I personally haven't given it any though with respect to this. Have you Sam?

Mr. Herrick: By discards here you're not referring to bycatch of other species or marine mammals?

NMFS Cost/Benefit Presentation



Mr. Pautzke: I'm talking about of you have a pure pollock catch and you're discarding everything so big or so small because you can't use it in your machines. And that's what comes through on our reports and it gets a lot of public scrutiny and it seems to be a big issue throughout industry, even outside the inshore/offshore context. How do we treat that as a net national cost of benefit?

<u>Dr. Herrick</u>: Well, it would, to the extent, you know, labor is involved in that discarding costs or whatever, its going to show up as a costs in the analysis. As long as it comes in under the labor cost or materials cost. Wherever. Its part of the benefit concern if it doesn't enter the market somewhere. It won't be a benefit. It will just be a cost. And consequently it will be deducted form the overall revenues, the total revenues, gross revenues from the offshore operation.

Mr. Pennoyer. To clarify and follow through with that though, I guess the question really is if its a discard and everybody is discarding it, then maybe its costs to each side. but I guess the comparison of benefits to the nation from an inshore/offshore allocation, I think what Mr. Pautzke is really asking is if in fact, one side would discard a higher proportion of what they catch then the other by giving to the side that discards less, how do you add that into your equation? Or is that taken into account? If it is. I don't know if it is.

<u>Dr. Miller.</u> It shows up. It is taken into account. I mean, you know, the discards by either sector were taken into account as far as the calculation were concerned. I guess I was thinking that the broader aspects of what do you do with discards to turn them into something valuable? To prevent or to avoid the necessity of throwing things overboard. That's a matter of technology. That's a matter of markets. I don't think that the type of research that would find a value for these products. But as far as a specific operations such as this and these calculations were concerned, it cost more to keep them there's no value for keeping them, then as Sam said, it shows up as a cost only, you know, to the extent that you're expending some labor in handling this product.

Mr. Pautzke: Well in terms of Executive Order 12291, where they say look at the benefits to the nation and the costs to the nation, would you put this big circle you got here—discards—in one place or the other? Or not worry about it?

<u>Dr. Miller</u>: Well I suppose discards show up as a cost in this analysis in that some effort has been expended in bringing so much fish aboard and that, throwing some over, there's been some costs. But that does that is taken into account in your figures, figuring your total costs of operation. or at least your total revenues.

<u>Dr. Herrick</u>: Can I just add to that a little bit? What we're observing here is the fact that certain components in each sector—these fish—the value is less than the costs of processing that fish or turning it into some kind of useful product and therefore they are not going to spend more than they will make processing it. So it is discarded. I'm not sure that this is, we talk about, we have, we address this concern about full utilization in the analysis. There is a section here that talks about that and uses an analogy taking side of beef, fully utilizing it as grinding it up into hamburger, O.K. or taking part of that beef...

NMFS Cost/Benefit Presentation



(End of Tape....I will get the next tape shortly.).

NMFS Cost/Benefit Presentation

- 14 -



#### MEMORANDUM

TO:

Council, SSC and AP Members

FROM:

Clarence G. Pautzke

**Executive Director** 

DATE:

April 14, 1992

SUBJECT:

Inshore-Offshore

#### **ACTION REQUIRED**

(a) Report on Secretarial decision on amendment 18/23.

(b) Set alternatives and schedule for analysis of revised amendment for BSAI for 1993-1995.

(c) Initiate analysis of inshore-offshore bycatch amendment.

(d) Review Community Development Quota program implementation.

#### BACKGROUND

#### Current Status of the Inshore-Offshore Amendments

On March 4, 1992 the Secretary of Commerce approved inshore-offshore amendment 23 to the Gulf of Alaska groundfish plan, allocating 100% of the pollock resource and 90% of the Pacific cod to inshore operations. For the Bering Sea and Aleutians, the Secretary approved the 35% - 65% split of pollock between inshore and offshore sectors for 1992 only. The approval included the Bering Sea Harvesting Vessel Operational Area for 1992 and the Community Development Quota program through 1995. The approval letter from NOAA Administrator John Knauss and a Commerce news release were sent to you in the March 6 mailing, but are included here as item C-2(a) for reference.

Though the final rules have not been published yet, I understand that the amendments will be implemented in time for the pollock "B" season in the Bering Sea and Aleutians, and the anticipated delayed opening of the second quarter pollock fishery in the Gulf of Alaska on June 1. Steve Pennoyer is available to provide further information on processing of the final rule and the rationale for disapproving certain portions of the Council's proposed amendments. Two economists from NMFS also are available to summarize the supplemental cost-benefit analysis of the inshore-offshore proposal.

#### Revisions and Resubmission

As was noted in the March 6 mailing, the Magnuson Act prescribes an accelerated 60-day Secretarial review for amendments resubmitted by a Council. <u>Item C-2(b)</u> is Section 304(b)(3) from the Act, explaining the review procedure. I suggest the following steps if the Council wants to resubmit an inshore-offshore amendment for the Bering Sea and Aleutians:

April 1992 Choose alternatives to be analyzed

June Approve analysis for public review

July Public review

Early August Special meeting to consider final approval

Late August Submit revised plan for Secretarial review

Late October Secretarial decision

January 1993 Plan implemented if approved

The above schedule will allow the industry some lead time in planning their operations for the "A" season, and the Council will know the outcome when it convenes in December to set TACs for 1993. If we wait until the regular September meeting for a final decision, there will be little time to have the amendment fully implemented by the January 20 roe season, and certainly there will be no room for slippage. Item C-2(c) is a calendar for 1992 so we can plan the summer meeting if desired. Council membership changes at midnight, August 10. New members come aboard on August 11.

If the Council wishes to resubmit an amendment, the alternatives need to be identified at this meeting so the analysis can be completed by June, a deadline that can only be accomplished if the alternatives are few in number and sharply defined. I assume the analysis can be much more focused because we are only looking at pollock in the Bering Sea and Aleutians this time around and the Community Development Program has already been approved, thus needing no further analysis except as discussed below with regard to the criteria.

#### Inshore-Offshore Bycatch Amendment

I have asked the Bycatch Team to consider alternative ways of addressing the issue of bycatch as it pertains to inshore-offshore. Obviously there needs to be some division of PSCs between the sectors so that preemption will not recur. The team will have suggestions, but at least one approach would be to amend current regulations to allow apportionment of PSC annually between inshore and offshore sectors, much as we do for other fisheries categories at the December meetings. This provision would require a regulatory amendment to Section 675.21(b) of the BSAI groundfish regulations which authorizes apportionment of PSC limits to specific target fishery categories. This could be a companion provision of the revised inshore-offshore amendment submitted for Secretarial review.

#### CDQ Criteria

I sent out to you on April 8 the State's criteria for judging proposed uses of the community development quotas of pollock in the Bering Sea. Another copy is provided under this tab as agenda item C-2(d). NMFS has indicated that the criteria will need to be analyzed and then published as a regulatory amendment before plans can be approved. One approach would be to tentatively approve them now and then comment on the proposed rule in June. A second approach would be to review them again in June and then submit the regulatory amendment for review and implementation by NMFS. We will need guidance from the Region on how best to proceed with this. The first approach may provide more opportunity for a CDQ later this year, while the second most likely would postpone initial CDQ implementation until 1993.

#### Pacific Whiting Allocations

Item C-2(e) announces NOAA approval of inshore-offshore allocations of Pacific whiting for 1992.

#### DRAFT FOR COUNCIL REVIEW

# WESTERN ALASKA COMMUNITY DEVELOPMENT QUOTA PROGRAM CRITERIA AND PROCEDURES

#### **PURPOSE AND SCOPE:**

The Western Alaska Community Development Quota Program is established to provide fishermen who reside in western Alaska communities a fair and reasonable opportunity to participate in the Bering Sea/Aleutian Islands groundfish fisheries, and promote the economic well being of local coastal communities in relation to Bering Sea fishery resources. The Western Alaska Community Development Quota Program is a joint program of the Secretary of Commerce and the Governor of Alaska. Through the creation and implementation of community fishery development plans, western Alaska communities will be able to diversify their local economies, provide community residents with new opportunities to obtain stable, long-term employment, and participate in the Bering Sea/Aleutian Islands fisheries which have been foreclosed to them because of the high capital investments needed to enter the fishery.

Under the program, the Governor of Alaska is authorized to recommend to the Secretary that certain Bering Sea communities be designated as eligible to receive a portion of the Community Development Quota (CDQ). To be eligible a community must meet criteria specified by the state, and have developed a fisheries development plan approved by the Governor. The Governor shall forward any such recommendations to the Secretary, following consultation with the Council. Upon receipt of such recommendations, the Secretary may release appropriate portions of the CDQ to the eligible applicant.

#### **PART I. Definitions:**

#### A. Eligible Community

An eligible community is defined as any community which is located on or proximate to the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or a community located on an island within the Bering Sea, that the Secretary of the Interior has certified pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203 as native villages are defined in section 3(c) of Pub. L. No. 92-203.

#### B. Applicant

An eligible applicant is defined as:

- (1) any local fishermen's organization from an eligible community, or group of communities, which is duly incorporated under the laws of the State of Alaska, or under federal law, and whose board of directors is composed of at least 75% commercial fishermen from the eligible community or group of communities involved in the project; or
- (2) a local economic development organization incorporated under the laws of the State of Alaska, or under federal law, specifically for the purposes of designing and implementing a Community Fisheries Development Plan under this program, and which has a board of directors composed of at least 75% commercial fishermen from the eligible community or group of communities involved in the project.

In the event an applicant described under either (1) or (2) above represents more than one community, the board of directors of the applicant must include at least one resident from each of the communities represented.

## C. <u>Managing Organization</u>

A managing organization is defined as any organization, corporation, company, firm, association, or other entity responsible for the management or operation of the CDQ project. A managing organization must be a legally recognized corporation, association, or other legal entity able to sue, be sued, enter into binding agreements, obtain loans, and own property. A managing organization may be either the applicant, or a separate party operating the project under contract or in partnership with the applicant.

## D. <u>Community Fisheries Development Plan</u>

A Community Fisheries Development Plan is defined as the entire proposal for a CDQ project which is provided to the state by an applicant. A complete Community Fisheries Development Plan consists of a community eligibility statement, a community development plan, a business plan, a statement of the applicant's qualifications, and a description of the managing organization, as well as any other supporting documents the applicant may include in the CDQ application.

## PART II. Application Requirements:

In order to qualify for a portion of the Community Development Quota (CDQ), an applicant must submit a Community Fisheries Development Plan application which contains the following information:

## A. Community Eligibility Statement. The applicant must provide a statement showing:

- 1. The applicant's community is located within 30 miles from the baseline from which the breadth of the territorial seas is measured along the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or on an island within the Bering Sea (see Table I). A community is not eligible if it is located on the Gulf of Alaska coast of the North Pacific Ocean even if it is within 30 miles of the baseline of the Bering Sea. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
- 2. The applicant's community has been certified by the Secretary of the Interior pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
- 3. The residents of the community, or group of communities, represented by the applicant conduct a substantial portion of their commercial or subsistence fishing effort in the waters of the Bering Sea.
- 4. The applicant's community has not previously developed harvesting or processing capability sufficient to support substantial participation by residents of the community in the commercial groundfish fisheries of the Bering Sea/Aleutian Islands because of a lack of sufficient funds for investing in harvesting or processing equipment, and subsequently

does not have a substantial capital investment or participation in the commercial harvesting or processing of Bering Sea groundfish resources. If there is a substantial investment, a community may still qualify if the applicant can show that the community benefits arising from these investments can only be realized through the assistance of a CDQ program.

- 5. The community, or group of communities, represented by the applicant does not have other natural resources available which would allow for the creation of a viable local cash economy and employment for its residents, other than commercial fishing.
- 6. The residents of the community, or group of communities, represented by the applicant do not have a sufficient source of capital to enter the groundfish fisheries of the Bering Sea.
- B. <u>Community Development Plan</u>. The application must include a detailed Community Development Plan which includes the following:
  - 1. The goals and objectives of the applicant's CDQ project.
  - 2. The amount of CDQ, by species, being applied for.
  - The length of time the CDQ will be necessary to meet the goals and objectives of the project, including a project schedule with measurable milestones for determining progress.
  - 4. The level of local employment the project will generate, including the kind and number of jobs local residents will be directly employed in.
  - A detailed description of the vocational and educational training programs the project will generate for local residents.
  - A detailed description of existing local infrastructure and how the project will utilize or enhance existing local harvesting or processing capabilities, support facilities, and human resources.
  - 7. A detailed plan which clearly describes how the project will generate new capital or equity for local fishing infrastructure, or investment in fishing or processing operations, including vessel or gear development programs, capitalization plans, and infrastructure and support facility development schedules, as appropriate.
  - 8. A plan and schedule for transition from reliance on the CDQ to self-sufficiency in the groundfish fisheryes
    - The overall short and long-term benefits to the local fishermen, and the community or group of communities, from receipt of the CDQ and the development of a self-sustaining fisheries economy.

C. <u>Business Plan</u>. The application must include a clear and concise business plan which will be used to evaluate the feasibility of the project. The business plan should provide the following information:

## 1. <u>The Business Venture</u>

- A description of the business including the kind of product and the quota required.
- b. The market.
- c. The competition.
- d. A description of the managing organization, the management structure, and the personnel including resumes and references.
- e. The business relationships between the partners or with other business interests, if any, including arrangements for management and audit control.
- f. Profit sharing arrangements between the partners or with other business interests, if any.

## 2. Financial Data

- a. Sources and applications of funding, including outside financing.
- b. Detailed descriptions of joint venture arrangements, loans, or other partnership arrangements.
- c. A budget for implementing the Community Development Plan.
- d. Capital equipment list.
- e. Cash flow and break-even analysis.
- f. Balance sheet and income statement, including profit, loss, and return on investment.
- D. <u>Applicant and Managing Organization</u>. The application must include a statement of the applicant's qualifications and a description of the organization managing or operating the project:

## 1. Applicant Qualifications

- a. The application must provide a statement demonstrating that the applicant is a qualified applicant. A qualifying applicant may be:
  - (i) any local fishermen's organization from a qualifying community, or group of communities, which is duly incorporated under the laws of the State of Alaska, or under federal law, and whose board of directors is composed of at least 75%

commercial fishermen from the community or group of communities involved in the project; or

- (ii) a local economic development organization incorporated under the laws of the State of Alaska, or under federal law, specifically for the purposes of designing and implementing a Community Fisheries Development Plan, and which has a Board of Directors composed of at least 75% commercial fishermen from the qualifying community or group of communities involved in the project.
- b. In the event an applicant described under either (i) or (ii) above represents more than one community, the board of directors of the applicant must include at least one resident from each of the communities represented.
- c. In order to be a qualifying applicant, any organization applying for a CDQ project must also have a duly authorized statement of support from each community involved in the project. Such a statement of support shall include a resolution from the governing body (city council, IRA council, or traditional council) from each such community. A community may not participate in more than one CDQ project, and only one application per community will be accepted.

## 2. <u>Managing Organization</u>

- a. The application must include a description of the managing organization, including documentation showing that the organization is a legally recognized corporation or association able to sue, be sued, enter into binding agreements, obtain loans, and own property.
- b. The application must include information showing that the managing organization, if it is the applicant, has a board of directors whose membership is composed of at least 75% commercial fishermen from the community or group of communities involved in the project, with at least one member from each such community; and has the approval of the community or communities on whose behalf it is applying, as demonstrated through resolutions of support from each community's governing body.
- c. The application must show that the managing organization, if it is not the applicant, has the support of the community or communities represented by the applicant as demonstrated through resolutions, letters, or other appropriate expressions of support. The application must also include documentation that there is a defined legal relationship between the applicant and the managing organization which clearly describes the responsibilities and obligations of each party as demonstrated through a contract or other legally binding agreement.
- d. The application must include information demonstrating that the managing organization has the management and technical expertise necessary to carry out and successfully implement the CDQ project.

## PART III. Evaluation and Recommendation Procedures:

The following procedures and criteria will be used to receive and process applications, perform project evaluations, and provide recommendations to the Secretary.

## A. Receipt of Applications and Schedule for Review

- 1. Upon approval of these criteria by the Secretary, the state will announce a schedule for application and review of proposed Community Fishery Development Plans. This schedule shall provide for Council review prior to the state submitting recommendations to the Secretary.
- The state will provide to the Council copies of the plans which are recommended for approval and a summary of the evaluation process. Copies of all applications, background materials, and the full decisionmaking record shall be made available to the Council upon request.
- 3. The Governor may hold a public hearing regarding the applications under consideration. Any such hearing shall be recorded, and the results shall become part of the decisionmaking record.
- 4. Following the close of the application period, the Governor shall evaluate any application which has been submitted, consider any comments received from the Council or the public, and forward all state approved applications to the Secretary with the state's recommendations.
- 5. Applicants which have received approval for multi-year projects need not reapply in subsequent years, unless so required in writing by the state or the Secretary at the time of approval or in instances where the project has been terminated.

## B. <u>Determination of Eligibility</u>

In order to be eligible to qualify for a portion of the Community Development Quota (CDQ), an application must meet the following requirements:

- 1. The application must contain all of the information specified in the application instructions.
- 2. The community or group of communities represented by the applicant meet the following criteria:
  - a. The applicant's community is located within 30 miles from the baseline from which the breadth of the territorial seas is measured along the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or on an island within the Bering Sea (see Table I). A community is not eligible if it is located on the Gulf of Alaska coast of the North Pacific Ocean even if it is within 30 miles of the baseline of the Bering Sea. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.

- b. The applicant's community has been certified by the Secretary of the Interior pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
- c. The residents of the community, or group of communities, represented by the applicant conduct a substantial portion of their commercial or subsistence fishing effort in the waters of the Bering Sea.
- d. The community, or group of communities, involved in the project have not developed the harvesting or processing capability sufficient to support substantial participation in the commercial groundfish fisheries of the Bering Sea/Aleutian Islands because of a lack of sufficient funds for investing in harvesting or processing equipment, and subsequently does not have a substantial capital investment in the commercial harvesting or processing of Bering Sea groundfish resources. If there is a substantial investment, a community may still qualify if the applicant can show that these investments can only be optimized through the assistance of a CDQ program.
- e. The community, or group of communities, represented by the applicant does not have other natural resources available which would allow for the creation of a viable local economy and employment for its residents, other than commercial fishing.
- f. The residents of the community, or group of communities, represented by the applicant do not have a sufficient source of capital to enter the groundfish fisheries of the Bering Sea.
- 3. The applicant is a qualified applicant, as defined above, and has provided a duly authorized statement of support from each community involved in the project. Such a statement of support shall include a resolution from the governing body (city council, IRA council, or traditional council) from each such community. A community may not participate in more than one CDQ project, and only one application per community will be accepted.
- 4. The managing organization meets the following criteria:
  - a. The managing organization is a legally recognized corporation or association able to sue, be sued, enter into binding agreements, obtain loans, and own property.
  - b. The managing organization, if it is the applicant, has a board of directors whose membership is composed of at least 75% commercial fishermen from the community or group of communities involved in the project, has at least one member from each such community, and has duly authorized statements of support from each community involved in the project.
  - c. The managing organization, if it is not the applicant, has the support of the community or communities represented by the applicant, and documentation has been provided showing that there is a defined legal relationship between the applicant and the managing organization which clearly spells out the

- responsibilities and obligations of each party as demonstrated through a contract or other legally binding agreement.
- d. The managing organization has demonstrated the management and technical expertise necessary to carry out the project, and is capable of successfully implementing and completing the CDQ project.

#### C. Evaluation

Applications determined to be eligible under Part III.A shall be evaluated on the basis of the following categories:

#### 1. Community Development Plan

The Community Development Plan will be evaluated based on the following:

- a. The goals and objectives of the project, the project schedule for meeting those goals and objectives, and the degree to which realistic measurable milestones for determining progress have been identified.
- b. The degree to which the project will develop a self-sustaining local fisheries economy, and the schedule for transition from reliance on the CDQ to economic self-sufficiency. The overall short and long-term benefits to the community, or group of communities, from receipt of the CDQ and the development of a self-sustaining fisheries economy will be important considerations.
- c. The level of local employment the project will generate, including the kind and number of jobs local residents will be directly employed in, and the vocational and educational training programs the project will generate for local residents.
- d. The degree to which the project will generate capital or equity for local fishing infrastructure, or investment in fishing or processing operations. Important consideration will be given to vessel or gear development programs, capitalization plans, and infrastructure and support facility development schedules, as appropriate.
- e. The profit sharing arrangements with other business entities, if participating in a joint venture, and the degree to which profits will be used to assist in the development of a self-sustaining local fisheries economy.

## 2. Business Plan

The application must include a clear and concise business plan which will be used to evaluate the feasibility of the project and likelihood of the project's success. The business plan will be evaluated based on the following information:

#### a. The Business Venture

i. The description of the business including the kind of product and the quota required, the market, and the competition.

- ii. The management structure, quality and expertise of personnel, and the level of management and technical expertise of the managing organization.
- iii. The business relationships between the participants in the project, including arrangements for management and audit control, and profit sharing arrangements between the partners or with other business interests, if any.
- iv. The likelihood of success, including the ability to successfully meet the project milestones and schedule.

#### b. Financial Data

- i. Sources and uses of funding, including outside financing.
- ii. Detailed descriptions of joint venture arrangements, loans, or other partnership arrangements including the distribution of proceeds among the parties.
- iii. The adequacy of the budget for implementing the Community Development Plan and the likelihood of successful implementation.
- iv. Capital equipment list.
- v. Cash flow and break-even analysis.
- vi. Balance sheet and income statement, including profit, loss, and return on investment.

## 3. <u>Cooperation Among Eligible Communities</u>

Special consideration will be given to cooperative ventures among several eligible communities, or among applicants. For example, if an applicant applies only for processing or harvesting a portion of the CDQ, other eligible applicants shall have priority for the harvesting or processing of that CDQ if they have entered into a cooperative venture with the other applicant. In order to qualify for consideration under this section, the applicants must:

- a. Meet all of the requirements for community eligibility and have a satisfactory community development plan and business plan as described above, and provide a description of the benefits arising from the cooperative project.
- b. Have a cooperative agreement between the applicants, if more than one applicant is involved, which clearly describes the business relationships between the parties, and identifies the specific legal and financial responsibilities and obligations of each of the parties. A copy of this agreement must be included with the application.

## D. Recommendations

- 1. Upon receipt of an application, the state shall employ the following procedures when formulating recommendations to the Secretary:
  - a. If there is sufficient quota to meet the needs of all of the qualifying applications received, those applications shall be forwarded to the Secretary with recommendations. Recommendations to the Secretary shall be based on the state's evaluation of the applications, and comments or recommendations received from the Council and the public.
  - b. In the event there is insufficient quota to meet the combined total quota requested by the applicants, the quota may be apportioned among the eligible applications. Business plans will be reviewed to determine the economic feasibility of each application with a lower amount of quota. Applicants will be consulted regarding the economic feasibility of their respective project at less than the requested amount. Quota will be apportioned based on:
    - The economic feasibility and likelihood of success of each individual project at a reduced quota.
    - ii. The relative benefits to be derived by coastal communities from participating in the CDQ program. Priority will be given to maximizing the benefits of the CDQ program to the greatest number of communities.
    - iii. For pollock, individual applicants will initially be limited to a maximum of 33% of the annual CDQ. Exceptions to this rule will be considered on a case-by-case basis.
- 2. Recommendations from the Governor shall be transmitted in writing to the Secretary within 5 working days after the close of the review and evaluation period. The Governor shall include a description of the basis for the state's recommendations, including:
  - a. A summary of how the proposal meets program criteria.
  - b. A summary of any comments received from the North Pacific Fisheries Management Council and the public, and a response to comments as appropriate.
  - c. Any other relevant information the state considered during the evaluation and review of the application.

#### Part IV. Compliance

#### A. Notification

The State will require notification of any material change in any CDQ project 30 days in advance of any such change. Notification will be required for the following:

- 1. Any material change in the business relationships among the partners, including the addition or deletion of partners or participants.
- 2. Any material change in the profit sharing arrangements among the partners or the participants, or any material change to the budget for the Community Development Plan.
- 3. Any material change in management structure of the project, including any change in audit procedures or control.

## B. Approval and Right to Terminate

Upon receipt of notification of any such material change, the state shall inform the Secretary of the notification. Any material change to the project will require prior approval by the state, and the state reserves the right to recommend to the Secretary suspension or termination for any CDQ allocation for any project which is materially changed without notification to, and approval by, the state.

#### C. Annual Review

On an annual basis the state shall conduct a project review for each CDQ project, including adherence to the project schedule, the Community Development Plan, and the Business Plan. If a CDQ project has not been successful or appears unlikely to become successful, the state may recommend to the Secretary of Commerce that the CDQ be suspended or terminated. The state can also recommend that the CDQ be increased or modified, based upon the submission of an amendment to the original application, if the existing program is successful or likely to be successful, and the modified or increased CDQ will further assist in developing a self-sustaining local fisheries economy.

Table I. Geographically Eligible Coastal Communities Within 30 Miles of the Bering Sea

Akutan	Aleutian	Alakanuk
Atka	Aleutian	Bill Moo
False Pass	Aleutian	Chanilut
Nelson Lagoon	Aleutian	Chefornal
Nikolski	Aleutian	Chevak
Port Heiden (Meschick)	Aleutian	Eek
St. George	Aleutian	Emmonal
St. Paul	Aleutian	Goodnew
Unalaska	Aleutian	Hamilton
		Hooper B
Gambell	Bering Sea	Kipnuk
Northeast Cape	Bering Sea	Kongigan
Savoonga	Bering Sea	Kotlik
		Kwigillin
Brevig Mission	Bering Strait	Mekoryul
Elim	Bering Strait	Newtok
Golovin	Bering Strait	Nightmut
Inalik	Bering Strait	Platinum
Koyuk	Bering Strait	Quinhaga
Nome	Bering Strait	Scammon
Shaktoolik	Bering Strait	Sheldon's
St. Michael	Bering Strait	Toksook 1
Stebbins	Bering Strait	Tununak
Teller	Bering Strait	Tuntutulia
Unalakleet	Bering Strait	
Wales	Bering Strait	
White Mountain	Bering Strait	
Clark's Point	Bristol Bay	
Dillingham	Bristol Bay	
Egegik	Bristol Bay	
Ekuk	Bristol Bay	
N / 1 1		

**Bristol Bay** 

**Bristol Bay** 

**Bristol Bay** 

**Bristol Bay** 

**Bristol Bay** 

Manokotak

Pilot Point

Twin Hills

**Togiak** 

Ugashik

Draft: 4/07

## WESTERN ALASKA COMMUNITY DEVELOPMENT QUOTA PROGRAM CRITERIA AND PROCEDURES

## PURPOSE AND SCOPE:

The Western Alaska Community Development Quota Program is established to provide fishermen who reside in western Alaska communities a fair and reasonable opportunity to participate in the Bering Sea/Aleutian Islands groundfish fisheries, and promote the economic well being of local coastal communities in relation to Bering Sea fishery resources. The Western Alaska Community Development Quota Program is a joint program of the Secretary and the Governor of the State of Alaska. Through the creation and implementation of community fishery development plans, western Alaska communities will be able to diversify their local economies, provide community residents with new opportunities to obtain stable, long-term employment, and participate in the Bering Sea/Aleutian Islands fisheries which have been foreclosed to them because of the high capital investments needed to enter the fishery.

Under the program, the Governor of Alaska is authorized to recommend to the Secretary that certain Bering Sea communities be designated as eligible to receive a portion of the Community Development Quota (CDQ). To be eligible a community must meet criteria specified by the state, and have developed a fisheries development plan approved by the Governor. The Governor shall forward any such recommendations to the Secretary, following consultation with the Council. Upon receipt of such recommendations, the Secretary may release appropriate portions of the CDQ to the eligible applicant.

#### PART I. Definitions:

## A. Eligible Community

An eligible community is defined as any community which is located on or proximate to the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or a community located on an island within the Bering Sea, that the Secretary of the Interior has certified pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203 as native villages are defined in section 3(c) of Pub. L. No. 92-203.

#### B. Applicant

An eligible applicant is defined as:

(1) any local fishermen's organization from an eligible community, or group of communities, which is duly

incorporated under the laws of the State of Alaska, or under federal law, and whose board of directors is composed of at least 75% commercial fishermen from the eligible community or group of communities involved in the project; or

(2) a local economic development organization incorporated under the laws of the State of Alaska, or under federal law, specifically for the purposes of designing and implementing a Community Fisheries Development Plan under this program, and which has a board of directors composed of at least 75% commercial fishermen from the eligible community or group of communities involved in the project.

In the event an applicant described under either (1) or (2) above represents more than one community, the board of directors of the applicant must include at least one resident from each of the communities represented.

## C. Managing Organization

A managing organization is defined as any organization, corporation, company, firm, association, or other entity responsible for the management or operation of the CDQ project. A managing organization must be a legally recognized corporation, association, or other legal entity able to sue, be sued, enter into binding agreements, obtain loans, and own property. A managing organization may be either the applicant, or a separate party operating the project under contract or in partnership with the applicant.

## D. Community Fisheries Development Plan

A Community Fisheries Development Plan is defined as the entire proposal for a CDQ project which is provided to the state by an applicant. A complete Community Fisheries Development Plan consists of a community eligibility statement, a community development plan, a business plan, a statement of the applicant's qualifications, and a description of the managing organization, as well as any other supporting documents the applicant may include in the CDQ application.

## PART II. Application Requirements:

In order to qualify for a portion of the Community Development Quota (CDQ), an applicant must submit a Community Fisheries Development Plan application which contains the following information:

## A. Community Eligibility Statement

The applicant must provide a statement showing:

THE DESTRUCTION OF MINIMACON

- The applicant's community is located within 30 miles from the baseline from which the breadth of the territorial seas is measured along the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or on an island within the Bering Sea (see Table I). A community is not eligible if it is located on the Gulf of Alaska coast of the North Pacific Ocean even if it is within 30 miles of the baseline of the Bering Sea. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
- 2. The applicant's community has been certified by the Secretary of the Interior pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
- 3. The residents of the community, or group of communities, represented by the applicant conduct a substantial portion of their commercial or subsistence fishing effort in the waters of the Bering Sea.
- 4. The applicant's community has not previously developed harvesting or processing capability sufficient to support substantial participation by residents of the community in the commercial groundfish fisheries of the Bering Sea/Aleutian Islands because of a lack of sufficient funds for investing in harvesting or processing equipment, and subsequently does not have a substantial capital investment or participation in the commercial harvesting or processing of Bering Sea groundfish resources. If there is a substantial investment, a community may still qualify if the applicant can show that the community benefits arising from these investments can only be realized through the assistance of a CDQ program.
- 5. The community, or group of communities, represented by the applicant does not have other natural resources available which would allow for the creation of a viable local cash economy and employment for its residents, other than commercial fishing.
- 6. The residents of the community, or group of communities, represented by the applicant do not have a sufficient source of capital to enter the groundfish fisheries of the Bering Sea.

#### B. Community Development Plan

The application must include a detailed Community Development Plan which includes the following:

- 1. The goals and objectives of the applicant's CDQ project.
- The amount of CDQ, by species, being applied for.
- 3. The length of time the CDQ will be necessary to meet the goals and objectives of the project, including a project schedule with measurable milestones for determining progress.
- 4. The level of local employment the project will generate, including the kind and number of jobs local residents will be directly employed in.
- 5. A detailed description of the vocational and educational training programs the project will generate for local residents.
- 6. A detailed description of existing local infrastructure and how the project will utilize or enhance existing local harvesting or processing capabilities, support facilities, and human resources.
- 7. A detailed plan which clearly describes how the project will generate new capital or equity for local fishing infrastructure, or investment in fishing or processing operations, including vessel or gear development programs, capitalization plans, and infrastructure and support facility development schedules, as appropriate.
- 8. A plan and schedule for transition from reliance on the CDQ to self-sufficiency in the groundfish fishery.
- 9. The overall short and long-term benefits to the local fishermen, and the community or group of communities, from receipt of the CDQ and the development of a self-sustaining fisheries economy.

## C. Business Plan

The application must include a clear and concise business plan which will be used to evaluate the feasibility of the project. The business plan should provide the following information:

## 1. The Business Venture

a. A description of the business including the kind of product and the quota required. include documentation that there: relationship between the applicant organization which clearly responsibilities and obligations demonstrated through a contract binding agreement.

d. The application must includemonstrating that the managing the management and technical experiency out and successfully improject.

## PART III. Evaluation and Recommendation Procedur

The following procedures and criteria will be us process applications, perform project evaluati recommendations to the Secretary.

# A. Receipt of Applications and Schedule for Re

- Upon approval of these criteria by the state will announce a schedule for apple of proposed Community Fishery Develop schedule shall provide for Council restate submitting recommendations to the state submitting recommendations.
- 2. The state will provide to the Council c which are recommended for approval and evaluation process. Copies of a background materials, and the full deci shall be made available to the Council
- 3. The Governor may hold a public hear applications under consideration. Any be recorded, and the results shall be decisionmaking record.
- 4. Following the close of the application Governor shall evaluate any application submitted, consider any comments recommendations to the Secretary wirecommendations.
- 5. Applicants which have received approve projects need not reapply in subsequen required in writing by the state or the time of approval or in instances where been terminated.

2.

a. i.

D. App

The qua or

1.

#### Determination of Eligibility B.

In order to be eligible to qualify for a portion of the Community Development Quota (CDQ), an application must meet the following requirements:

- The application must contain all of the information 1. specified in the application instructions.
- 2. The community or group of communities represented by the applicant meet the following criteria:
  - The applicant's community is located within 30 miles from the baseline from which the breadth of the territorial seas is measured along the Bering Sea coast from the Bering Strait to the western most of the Aleutian Islands, or on an island within the Bering Sea (see Table I). A community is not eligible if it is located on the Gulf of Alaska coast of the North Pacific Ocean even if it is within 30 miles of the baseline of the Bering Sea. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
  - b. The applicant's community has been certified by the Secretary of the Interior pursuant to section 11(b)(2) or (3) of Pub. Law No. 92-203. In the event that more than one community is represented by the applicant, all of the participating communities must meet this qualification.
  - The residents of the community, or group of c. communities, represented by the applicant conduct a substantial portion of their commercial or subsistence fishing effort in the waters of the Bering Sea.
  - The community, or group of communities, involved in d. the project have not developed the harvesting or processing capability sufficient to support in commercial substantial participation the groundfish fisheries of the Bering Sea/Aleutian Islands because of a lack of sufficient funds for investing in harvesting or processing equipment, and subsequently does not have a substantial capital investment in the commercial harvesting or processing of Bering Sea groundfish resources. If there is a substantial investment, a community may still qualify if the applicant can show that these investments can only be optimized through the assistance of a CDQ program.

- e. The community, or group of communities, represented by the applicant does not have other natural resources available which would allow for the creation of a viable local economy and employment for its residents, other than commercial fishing.
- f. The residents of the community, or group of communities, represented by the applicant do not have a sufficient source of capital to enter the groundfish fisheries of the Bering Sea.
- 3. The applicant is a qualified applicant, as defined above, and has provided a duly authorized statement of support from each community involved in the project. Such a statement of support shall include a resolution from the governing body (city council, IRA council, or traditional council) from each such community. A community may not participate in more than one CDQ project, and only one application per community will be accepted.
- 4. The managing organization meets the following criteria:
  - a. The managing organization is a legally recognized corporation or association able to sue, be sued, enter into binding agreements, obtain loans, and own property.
  - b. The managing organization, if it is the applicant, has a board of directors whose membership is composed of at least 75% commercial fishermen from the community or group of communities involved in the project, has at least one member from each such community, and has duly authorized statements of support from each community involved in the project.
  - c. The managing organization, if it is not the applicant, has the support of the community or communities represented by the applicant, and documentation has been provided showing that there is a defined legal relationship between the applicant and the managing organization which clearly spells out the responsibilities and obligations of each party as demonstrated through a contract or other legally binding agreement.
  - d. The managing organization has demonstrated the management and technical expertise necessary to carry out the project, and is capable of successfully implementing and completing the CDQ project.

Γ. 11

#### C. Evaluation

MERT 1782 1UE 10:01

Applications determined to be eligible under Part III.A shall be evaluated on the basis of the following categories:

## 1. Community Development Plan

The Community Development Plan will be evaluated based on the following:

- a. The goals and objectives of the project, the project schedule for meeting those goals and objectives, and the degree to which realistic measurable milestones for determining progress have been identified.
- b. The degree to which the project will develop a self-sustaining local fisheries economy, and the schedule for transition from reliance on the CDQ to economic self-sufficiency. The overall short and long-term benefits to the community, or group of communities, from receipt of the CDQ and the development of a self-sustaining fisheries economy will be important considerations.
- c. The level of local employment the project will generate, including the kind and number of jobs local residents will be directly employed in, and the vocational and educational training programs the project will generate for local residents.
- d. The degree to which the project will generate capital or equity for local fishing infrastructure, or investment in fishing or processing operations. Important consideration will be given to vessel or gear development programs, capitalization plans, and infrastructure and support facility development schedules, as appropriate.
- e. The profit sharing arrangements with other business entities, if participating in a joint venture, and the degree to which profits will be used to assist in the development of a self-sustaining local fisheries economy.

## 2. Business Plan

The application must include a clear and concise business plan which will be used to evaluate the feasibility of the project and likelihood of the project's success. The business plan will be evaluated based on the following information:

WLV - 1-25 TOF 10:00

### a. The Business Venture:

- i. The description of the business including the kind of product and the quota required, the market, and the competition.
- ii. The management structure, quality and expertise of personnel, and the level of management and technical expertise of the managing organization.
- iii. The business relationships between the participants in the project, including arrangements for management and audit control, and profit sharing arrangements between the partners or with other business interests, if any.
- iv. The likelihood of success, including the ability to successfully meet the project milestones and schedule.

### b. Financial Data:

- Sources and uses of funding, including outside financing.
- ii. Detailed descriptions of joint venture arrangements, loans, or other partnership arrangements including the distribution of proceeds among the parties.
- iii. The adequacy of the budget for implementing the Community Development Plan and the likelihood of successful implementation.
- iv. Capital equipment list.
- v. Cash flow and break-even analysis.
- vi. Balance sheet and income statement.

## 3. Cooperation Among Eligible Communities

Special consideration will be given to cooperative ventures among several eligible communities, or among applicants. For example, if an applicant applies only for processing or harvesting a portion of the CDQ, other eligible applicants shall have priority for the harvesting or processing of that CDQ if they have entered into a cooperative venture with the other applicant. In order to qualify for consideration under this section, the applicants must:

- a. Meet all of the requirements for community eligibility and have a satisfactory community development plan and business plan as described above, and provide a description of the benefits arising from the cooperative project.
- b. Have a cooperative agreement between the applicants, if more than one applicant is involved, which clearly describes the business relationships between the parties, and identifies the specific legal and financial responsibilities and obligations of each of the parties. A copy of this agreement must be included with the application.

### D. Recommendations

- The state shall employ the following procedures when formulating recommendations to the Secretary:
  - a. If there is sufficient quota to meet the needs of all of the qualifying applications received, those applications shall be forwarded to the Secretary with recommendations. Recommendations to the Secretary shall be based on the state's evaluation of the applications, and comments or recommendations received from the Council and the public.
  - c. In the event there is insufficient quota to meet the combined total quota requested by the applicants, the quota may be apportioned among the eligible applications. Business plans will be reviewed to determine the economic feasibility of each application with a lower amount of quota. Applicants will be consulted regarding the economic feasibility of their respective project at less than the requested amount. Quota will be apportioned based on:
    - i. The economic feasibility and likelihood of success of each individual project at a reduced quota.
    - ii. The relative benefits to be derived by coastal communities from participating in the CDQ program. Priority will be given to maximizing the benefits of the CDQ program to the greatest number of communities.
    - iii. For pollock, individual applicants will initially be limited to 33% of the annual CDQ. Exceptions to this rule will be considered on a case-by-case basis.

- 2. Recommendations from the Governor shall be transmitted in writing to the Secretary within 5 working days after the close of the review and evaluation period. The Governor shall include a description of the basis for the state's recommendations, including:
  - a. A summary of how the proposal meets program criteria.
  - b. A summary of any comments received from the North Pacific Fisheries Management Council and the public, and a response to comments as appropriate.
  - c. Any other relevant information the state considered during the evaluation and review of the application.

### Part IV. Compliance

### A. Notification

The State will require notification of any material change in any CDQ project 30 days in advance of any such change. Notification will be required for the following:

- Any material change in the business relationships among the partners, including the addition or deletion of partners or participants.
- Any material change in the profit sharing arrangements among the partners or the participants, or any material change to the budget for the Community Development Plan.
- 3. Any material change in the management structure of the project, including any change in audit procedures or control.

## B. Approval and Right to Terminate

Upon receipt of notification of any such material change, the state shall inform the Secretary of the notification. Any material change to the project will require prior approval by the state, and the state reserves the right to recommend to the Secretary suspension or termination for any CDQ allocation for any project which is materially changed without notification to, and approval by, the state.

### C. Annual Review

On an annual basis the state shall conduct a project review for each CDQ project, including adherence to the project schedule, the Community Development Plan, and the Business Plan. If a CDQ project has not been successful or appears

unlikely to become successful, the state may recommend to the Secretary of Commerce that the CDQ be suspended or terminated. The state can also recommend that the CDQ be increased or modified, based upon the submission of an amendment to the original application, if the existing program is successful or likely to be successful, and the modified or increased CDQ will further assist in developing a self-sustaining local fisheries economy.

# CENTRAL BERING SEA FISHERMEN'S ASSOCIATION PO BOX 88 ST. PAUL ISLAND, ALASKA 99688

April 16, 1992

44 I 6 L 1

Rick Lauber, Chairman North Pacific Fishery Management Council 605 West Fourth Avenue Anchorage, Alaska 99501

Dear Mr. Lauber,

i

SUBJ: COMMUNITY DEVELOPMENT QUOTAS

As you may know, Central Bering Sea Fishermen's Association requested that the Secretary of Commerce place a Stay of Proceeding on its evaluation of the CBSFA request for a directed allocation of quota to the Pribilof Islands.

Our reason for delaying is to evaluate the Community Development Quota for pollock, which was apparently approved by the Secretary of Commerce in the Amendment 18 decision, and to see it it could possibly meet our needs. We have the understanding from the State of Alaska and the federal government that the program is approved independent of shoreside/offshore allocation discussions that will be conducted over this next year. And that with some timely Council it can be in place for 1993.

CESFA has given its full efforts to show its willingness to participate under the CDQ programs. We have reviewed the State's proposed regulations, and offer now our best assessment of items that must be addressed by the Council to make CDQ a reality as far as development needs of St. Paul and St. George are concerned. Our intentions will be to make real economic use of CDQ through development of real programs to catch and process pollock on our islands.

- 1. Provision of appropriate bycatch for CDQ catcher vessels at appropriate levels provided to other fishery participants.
- 2. Artificial limitations on the amount of CDQ that may be needed by any one community in developing its fishery program make little sense unless the program is simply a royalty program. The State's proposed 33% restriction will be much too large for some elegibile communities, and will in all likelihood restrict Pribilof developments. Development of significant onshore processing facilities must of necessity repay real financial obligations in a real world whether backed by CDQs or general fishery. The State should make the allocation decisions not on political considerations, but on real fishing programs that provide real economic growth for the communities designated.

- 3. Harvest Time. It is important that CDQ quotas of pollock be available for harvest during a period of time when the common property harvest is not open. This will provide vessel incentives for participants. Especially as the Council considers moving the B season, the needs of planned shorebased operations near the Pribilofs as they impact herring bycatch will be important. Only a combination of CDQ fishing and common property fishing can justify the development of a real processing sector in the Pribilof communities.
- 4. We understand the State's need to emphasize cooperation among communities in the development of CDQ programs. Aleut fishermen have no desire to participate in allocation wars with the rest of Western Alaska's eligible communities. What we desire is to access those resources near our island and develop a local capacity to catch and process those resources for economic benefit. It will be important that we can access those fish when and as we need them.

We will be willing to work with other communities to process fish for which they may be elegible, but it is difficult for us to conceive that the existence of our community must be based on someone else's fishing allocation. If we are unable to look after ourselves it is difficult to understand how we look after others.

- 5. Aleut fishermen and vessels operating to catch CDQ allocations should not subject to loss of ability to participate as a result of moratoriums.
- 6. It will be the intention of the CBSFA fishery development program that CDQ quotas over time be phased into the general fishery regime, whether that be ITQ or otherwise, with the maximum of local participation.

We can see some real potential and substantial benefits for our communities, that might become possible under CDQ if our questions can be addressed by Council, and the program does not get lost in the inshore/offshore debate to follow in the next few months. Thanks for the opportunity to comment.

Sincerely,

Perfenia Pletnikoff, Jr., President

Central Bering Sea Fishermen's Association.

cc. TOX Corp.

Tanaq Corp.

Dr. Clarence Pautzke

# UNITED STATES DEPARTMENT OF

# MMERC

WASHINGTON, D.C. 20230

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NCAA 92-11

Contact:

Reed Boetright

(202) 377-8090

COMMERCE DEPARTMENT ACCEPTS HALF OF ALASKAN FISH PLAN

FOR IMMEDIATE RELEASE: 3/4/92

The Commerce Department today accepted portions of a four-year plan simed at stabilizing the nation's largest and most lucrative fish harvests in the Bering Sea and Gulf of Alaska. However, the Department called for further cost benefit studies from the regional management panel which authored the plan before longer-term solutions dan be adopted.

Commerce Undersecretary for Oceans and Atmosphere John A. Knauss said his agency endorses a portion of the North Pacific Fishery Management Council's allocation plan. This divides the vast polick and cod catch between local boats and processing plants integral to Alaska's economy and factory trawlers operating out of Washington and Oregon that catch and process the fish at sea.

As a result of the decision, most of the Gulf of Alaska cod and all of the Gulf pollock catch will be allotted to smaller boats delivering their catch to onshore processing plants in Alaska.

Knauss also accepted for the remainder of 1992 a division of the much larger Bering Sea catch. Thirty-five percent of that catch goes to shore-based processors and 65 percent to the factory fleet. He also gave conditional approval to a special program intended to allow remote western Alaskan communities to participate in these fisheries.

Knauss sent back for further economic review the Bering Sea ellocation plan for 1993-95, urging the North Pacific Management Council to come back with an alternative plan that can be implemented for the 1993 season.

"We are convinced that this action will help preserve our natural resources while dealing fairly with competing economic interests in the region," Knauss said.

The lucrative harvest has spewned a burgeoning fleet of everlarger boats and processing plants pursuing a catch which has been held relatively constant in an effort to protect the resource. As a result, the permitted catch is now reached in a few months during "split seasons," with associated economic instability.



UNITED STATES DEPARTMENT OF COMMERCS
The Under Secretary for
George and Atmosphere
Washington, D.C. 20220

March 4, 1992

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

### Dear Chairman Lauber:

With the enactment of the Magnuson Act in 1976, Congress specifically invited the U.S. fishing industry to begin to develop the underutilized fishery resources off Alaska to enable our citizens to benefit from the employment, food supply, and revenue which could be generated thereby. That development has occurred more rapidly than anticipated and the fishing industry now faces problems of overcapitalization that, left unchecked, will threaten its ability to maintain both stable employment and high profitability over the longer term.

I agree with the Council that a preemption problem also exists between sectors of the industry which have dramatically different capabilities in terms of mobility and harvesting capacity. This is most evident between the smaller, more localized fleets that largely supply enshore processors and the larger, more mobile offshore fleets. The problem is exacerbated by overcapitalization in the industry as a whole and will not be resolved until the Council addresses scae form of access control. I agree, however, that in the meantime there is a need to address preemption and other allocation issues while the Council works on a longer term solution.

I have examined the voluminous public comments, the record developed by the Council, and cost-benefit data submitted by the Mational Marine Fisheries Service (NMFS). Based on this record, I have approved the Gulf of Alaska Amendment (Amendment 23) in its entirety. With respect to the Bering Sea and the Aleutian Islands Amendment (Amendment 18), I have approved only the 1992 allocation. The allocations for 1993-1995 are disapproved.

With respect to the 1993-1995 allocations, the record now includes cost-benefit data showing a large net economic loss for that fishery from 1993 through 1995, without evidence of enough social or other benefits to counter that loss. As a result, on the present record, the disapproved measures would violate national standard 7 and Executive Order 12291.

I am approving the Western Alaska Community Development Quota Program provisions: however, I expect the Council will evaluate the Costs and benefits of the program criteria and fishery development plans before they are submitted to the Secretary for approval through rulemaking. The Secretary will review

groundflah plan, the national standards and applicable law. the criteria and plans for consistency with the objectives of the

provided for under the Magnuson Act. utilisation of harvested fish are desirable objectives that are that are dependent on a local fleet, and encouraging fuller serequerating capital investments, protecting coastal communities In the meantime, preventing preemption by one fleet of another, solution to overcapitalisation -- ideally, a market-based solution. offshore interests as an interim measure pending development of a opposed to the concept of an allocation between onshore and As demonstrated by our approval of Amendment 23, NOAA is not

in the Bering See and Aleutian Islands for the final three years The most obvious difference is the much higher net economic loss council, concluding that Amendment 18 in its totality would not. to belande the net economic loss while I differed with the conclusion that Amendment 23 would result in sufficient benefits res me exbretu paresty why I concurred in the council's

on roll-overs between quarters, and the prohibition against ros number of management measures (such as querterly quotes, limits is and 23, the Worth Pacific Council and MOAA have instituted a stuce the 1989 incident that prompted preparation of Amendments .drembness end to

the economic effect of the proposed allocation in the Bering sea. allocation would therefore be much closer to the status quo than rugnacky as a whole. The economic effect of the proposed Culf proposed allocation would have a much smaller effect on the Alaska is a small percentage of that in the Bering Sea and the sortvity in the dult of Aleska. The resource size in the Gulf of egriphing) that have had the side effect of restricting offshore

benefits. economic lesses of Amendment 23 are clearly offset by secial in this setivity are local residence. In this regard, the dependence on flahing and a very high proportion of those engaged dult cosstal communities are characterised by an historic larger offshore fleet that normally operates in the Bering Sea. creerly vulnerable to massive transfers of effort from the much communities and, indeed, the smaller resources in the Gulf, are demonstrated in the Gulf of Alaska during 1989. Gulf coastal The sectal and sconcate impacts of preemption were clearly

implementation during 1992. remainder of Amendment is and still have a plan in place for will give the council the opportunity to take enother look at the the onshore sector, implemented for the 1993 B season only, does not appear to result in significant net economic losses. This preemption by the offshore fleet. The 15 percent allocation to the need to provide some protection for the onshore fishery from I am approving the first year of Amendment 18 because I recognize

The council should examine and refine the assumptions and

Maria A Marian

aruderely,

A revised Amendment and supplementary supporting analyses could be resubmitted for a 60-day secretarial review. MOAA is committed to essisting the Council in developing an allocation progrem for the Sering Sea-Aleutian Islands that could be implemented early in 1993.

I urge the council to work as expeditiously as possible towerd some other method of allocating fish than either the olympic system or direct government intervention. The olympic system or direct government intervention. The olympic system of overcepitalisation, preemption of one sector by another, bycatch and waste. It is not possible to build fences around all of the and have any semblance of a manageable fishery. Over the long and have any semblance of a manageable fishery, over the long and have any semblance of a manageable fishery, over the long of the and industry sectors decisions, instead of government interest of the system and relies more of the most viable of government interests.

As you know, NOAA received comments with respect to deficiencies in the enelytical documents submitted by the Council that ere necessary for compliance with the National Environmental Policy Act and B.O. 12391. While such documents can almost elways be improved, I believe the record contains sufficient information concerning the effects of Amendment 23 and the first year of Amendment 18 were not that the economic effects in the outyears of Amendment 18 were not fully understood at the time the Council Amendment 18 were not fully understood at the time the Council provide another supplement to the environmental impact statement that will evaluate the economic effects of each reasonable alternative for addressing the preemption problem in succeeding verse.

methodology of the MNFS economic review. The Council may wish to percentages to minimize economic lose, if necessary, and/or meld a subsequent allocation proposal with a moratorium on entry into the groundfish fisheries. Clearly a cost-benefit analysis should be prepared when it is reasonably apparent from the size of a proposed allocation that the cost to the nation associated with proposed allocation might begin to approach the level that we are that allocation might begin to approach the level that we are the significant economic cost to the nation of the sere of a significant economic cost to the nation of the council as algorithms. The full implementation of the second, third as algorithms by the full implementation of the second, third as algorithms of method with the full implementation of the second, third as algorithms of an approach is a contained with begins of the full implementation of the second, third are significant economic cost to the nation of the council of the significant economic cost to the nation of the second, third contains of the second this distance of an approach of the contained with the full implementation of the second thinks of the contained of the full implementation of the second thinks of the contained of the full implementation of the second thinks of the contained of the full implementation of the second that the full implementation of the full implementation of the second that the full implementation of the full implementati

### 16 U.S.C. 1854

- (3) (A) The Secretary shall take action under this section on any fishery management plan or amendment to a plan which the Council characterizes as being a final plan or amendment.
- (B) For purposes of this section, the term "receipt date" means the 5th day after the day on which a Council transmits to the Secretary a fishery management plan, or an amendment to a plan, that it characterizes as a final plan or amendment.

### 97-453, 99-659

\*

### (b) REVIEW BY THE SECRETARY .--

- (1) A plan or amendment shall take effect and be implemented in accordance with section 305(a) if--
  - (A) the Secretary does not notify the Council in writing of-

(i) his disapproval under subsection (a)(1)(A)(ii), or

- (ii) his disapproval, or partial disapproval, under paragraph (2), of the plan or amendment before the close of the 95th day after the receipt date; or
- (B) at any time subsequent to the 60th day after the receipt date and before such 95th day, the Secretary notifies the Council in writing that he does not intend to disapprove, or partially disapprove, the plan or amendment.
- (2) If after review under subsection (a) the Secretary determines that the plan or amendment is not consistent with the criteria set forth in paragraph (1)(B) of that subsection, the Secretary shall notify the Council in writing of his disapproval or partial disapproval of the plan or amendment. Such notice shall specify--
  - (A) the applicable law with which the plan or amendment is inconsistent;

(B) the nature of such inconsistencies; and

- (C) recommendations concerning the actions that could be taken by the Council to conform such plan or amendment to the requirements of applicable law.
- (3) (A) If the Secretary disapproves a proposed plan or amendment under subsection (a)(1)(A)(ii), or disap-proves, or partially disapproves, a proposed plan or amendment under paragraph (2), the Council may submit a revised plan or amendment, accompanied by appropriately revised proposed regulations, to the Secretary.
- (B) After the Secretary receives a revised plan or amendment under subparagraph (A) or (C)(ii), the Secretary shall immediately--

(i) commence a review of the plan or amendment to determine whether it complies with the criteria set forth in subsection (a)(1)(B);

(ii) publish in the Federal Register a notice stating that the revised plan or amendment is available and that written data, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 30-day period beginning on the date (hereinafter in this paragraph referred to as the "revised receipt date") the plan or amendment was submitted to the Secretary under

subparagraph (A) or (C)(ii); and

(iii) review the revised proposed regulations, if any, submitted by the Council and make such changes to them as may be necessary for the implementation of the plan, and thereafter publish such revised proposed regulations (as so changed) in the Federal Register together with an explanation of each of such changes that is substantive.

- (C) (i) Before the close of the 60th day after the revised receipt date, the Secretary, after taking into account any data, views, or comments received under subparagraph (B)(ii), shall complete the review required under subparagraph (B)(i) and determine whether the plan or amendment complies with the criteria set forth in subsection (a)(1)(B). If the Secretary determines that a plan or amendment is not in compliance with such criteria, he shall immediately notify the Council of his disapproval of the plan or amendment.
- (ii) After notifying a Council of disapproval under clause (i), the Secretary shall promptly provide to the Council a written statement of the reasons on which the disapproval was based and advise the Council that it may submit a further revised plan or amendment, together with appropriately revised proposed regulations, for review and determination under this paragraph.
- (D) A revised plan or amendment shall take effect and be implemented in accordance with section 305(a) if the Secretary does not notify the Council, in writing, by the close of the 60th day after the revised receipt date of his disapproval of the plan or amendment.

### 97-453, 99-659

### (c) PREPARATION BY THE SECRETARY .--

- (1) The Secretary may prepare a fishery management plan, with respect to any fishery, or any amendment to any such plan, in accordance with the national standards, the other provisions of this Act, and any other applicable law, if--
  - (A) the appropriate Council fails to develop and submit to the Secretary, after a reasonable period of time, a fishery management plan for such fishery, or any necessary amendment to such a plan, if such fishery requires conservation and management; or
  - (B) the Secretary disapproves or partially disapproves any such plan or amendment, or disapproves a revised plan or amendment, and the Council involved fails to submit a revised or further revised plan or amendment, as the case may be.

In preparing any such plan or amendment, the Secretary shall consult with the Secretary of State with respect to foreign fishing and with the Secretary of the department in which the Coast Guard is operating with respect to enforcement at sea. The Secretary shall also prepare such proposed regulations as he deems necessary or appropriate to carry out each plan or amendment prepared by him under this paragraph.

- (2) (A) Whenever, under paragraph (1), the Secretary prepares a fishery management plan or amendment, the Secretary shall immediately--
  - (i) submit such plan or amendment, and proposed regulations to implement such plan or amendment, to the appropriate Council for consideration and comment;
  - (ii) publish in the Federal Register a notice stating that the plan or amendment is available and that written data, views, or comments of interested persons on the plan or amendment may be submitted to the Secretary during the 60-day period beginning on the date the plan or amendment was submitted under clause (i); and
  - (iii) by the 15th day after the date of submission under clause (i), submit for publication in the Federal Register the proposed regulations to implement the plan or amendment.

## 1992

JANUARY	FEBRUARY	MARCH
SUN. MON. TUE. WED. THU. FRI. SAT.	SUN. MON. TUE. WED. THU. FRI. SAT.	SUN, MON. TUE, WED, THU, FRI. SAT.
1 2 3 4	1	1 2 3 4 5 6 7
5 6 7 8 9 10 11	2 3 4 5 6 7 8	8 9 10 11 12 13 14
12 13 14 15 16 17 18 19 20 21 22 23 24 25	9 10 11 12 13 14 15	15 16 17 18 19 20 21
19 20 21 22 23 24 25 26 27 28 29 30 31	16 17 18 19 20 21 22 23 24 25 26 27 28 29	22 23 24 25 26 27 28 29 30 31
	20 24 20 20 21 20 20	
APRIL	MAY	JUNE
SUN. MON. TUE. WED. THU. FRI. SAT.	SUN. MON. TUE. WED. THU. FRI. SAT.	SUN. MON. TUE. WED. THU. FRI. SAT.
1 2 3 4	1 2	1 2 3 4 5 6
5 6 7 8 9 10 11	3 4 5 6 7 8 9 10 11 12 13 14 15 16	7 8 9 10 11 12 13 14 15 16 17 18 19 20
12 13 14 15 16 17 18 19 20 21 22 23 24 25	10 11 12 13 14 15 16 17 18 19 20 21 22 23	21 22 23 24 25 26 27
26 27 28 29 30	<sup>24</sup> <sub>31</sub> 25 26 27 28 29 30	28 29 30
JULY	AUGUST	SEPTEMBER
SUN. MON. TUE. WED. THIL FRI. SAT.	SUN. MON. TUE. WED. THIL FRI. SAT.	SUN. MON. TUE. WED. THU. FRI. SAT.
SUM. MON. THE. WED. THIL FRI. SAT.  1 2 3 4	SUN. MON. TUE. WED. THIL FRI. SAT.	<del></del>
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	SUN. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	SUN. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
SUM. MON. THE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	SUN. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	SUN. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	SUN. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  OCTOBER	SUN. MON. TUE. WED. THEL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 30 24 31 25 26 27 28 29  NOVEMBER	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   DECEMBER
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  OCTOBER  SUM. MON. TUE. WED. THU. FRI. SAT.	SUN. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 30 24 31 25 26 27 28 29  NOVEMBER  SUN. MON. TUE. WED. THIL FRI. SAT.	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   DECEMBER  SUN. MON. TUE. WED. THUL FRI. SAT.
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  OCTOBER  SUM. MOM. TUE. WED. THU. FRI. SAT. 1 2 3	SUN. MON. TUE. WED. THEL FRI. SAT. $\begin{array}{cccccccccccccccccccccccccccccccccccc$	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   DECEMBER  SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5
SUM. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31   OCTOBER  SUM. MON. TUE. WED. THIL FRI. SAT.  1 2 3 4 5 6 7 8 9 10	SUN. MON. TUE. WED. THEL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 30 24 31 25 26 27 28 29  NOVEMBER  SUN. MON. TUE. WED. THEL FRI. SAT. 1 2 3 4 5 6 7 8 9 10 11 12 13 14	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   DECEMBER  SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12
SUM. MON. TUE. WED. THU. FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  OCTOBER  SUM. MOM. TUE. WED. THU. FRI. SAT. 1 2 3	SUN. MON. TUE. WED. THEL FRI. SAT. $\begin{array}{cccccccccccccccccccccccccccccccccccc$	SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   DECEMBER  SUN. MON. TUE. WED. THUL FRI. SAT.  1 2 3 4 5 6 7 8 9 10 11 12

AGENDA C-2(e) APRIL 1992

UNITED STATES DEPARTMENT OF

# COMMERCE

WASHINGTON, D.C. 20230

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Contact:

Roddy Moscoso

(0) (301) 713-2370

(H) (703) 503-5017

FOR IMMEDIATE RELEASE

### NOAA ISSUES '92 ALLOCATION SCHEDULE FOR PACIFIC WHITING

NOAA's National Marine Fisheries Service (NMFS) today approved an emergency rule allocating the quota of Pacific whiting between at-sea processors and shoreside processors for the 1992 season.

The approval comes in response to a March, 1992 recommendation by the Pacific Fishery Management Council to equitably distribute harvest and processing opportunities among all sectors of the Pacific whiting fishery. Without this allocation, the at-sea processor fleet would likely have taken the majority of the whiting quota within weeks following the season's scheduled opening on April 15, leaving few fish for smaller boats and shoreside processors who have traditionally depended on this fishery for much of their income.

Specifically, the emergency rule allocates the 208,800 metr.c tons (mt) annual quota by:

- O Putting an initial limit of 98,800 mt on at-sea processing of whiting;
- providing an 80,000 mt initial allocation for shoreside processors;
- o putting 30,000 mt of whiting into a reserve with priority given to shoreside processors;
- o requiring shoreside processors to have processed 48,000 int (60% of their initial allocation) by September 1, 1992, or the reserve will be made available to the at-sea processor fleet to ensure full utilization of the whiting resource; and
- o releasing any amount of whiting not needed by shoreside processors to the at-sea processor fleet on October 1, 1992

The Pacific Council is currently working on a long-term management plan for whiting and is considering alternative management schemes for the fishery including controlled access and other alternatives which may reduce the problems associated with annual allocations.



The North Pacific Fishery Management Council is preparing to consider once again an inshore/offshore allocation of pollock in the Bering Sea for 1993-1995. All of the proposals now under discussion would have the effect of dislocating an important segment of the historic and current catcher boat fleet.

It is a top priority of American High Seas Fisheries Association to unite the catcher boat fleet, as well as the two processing sectors that buy their catch. The AHSFA Board of Directors therefore urges the North Pacific Fishery Management Council to include in their list of options the following proposal:

In the Bering Sea for 1993-1995, the harvest of pollock shall be allocated at the point of harvest as follows:

40 % to vessels that catch and process with 65% to vessels that catch but do not process with 65%

is reserved for vessels that deliver shoreside

The catcher boat harvest not specifically reserved for vessels delivering shoreside will be available for the open market.

If motherships are required to declare themselves as inshore or offshore processors at the beginning of the season, then catcher-processors will also be required to declare themselves as catcher-processors or motherships at the beginning of the season. Mid-season changes will not be allowed.

An allocation phrased in this form has these advantages:

\* assures that 2 % will be delivered ashore while promoting a
market-driven system with competition for an additional portion

of the harvest

\* allows development of a free market that lets fishermen
deliver where the price is best, while still encouraging
shorebased processing to the benefit of local communities

\* prevents the negative aspects of an allocation based on the processing sector: a guaranteed quota could reduce the ex-vessel price which lowers the amount of raw fish tax and other taxes, thus reducing the net benefit to the nation

\* promotes the diversity of the fishery by providing for all harvesting and processing sectors

\* addresses preemption by factory trawlers of the catcher boat fleet that pioneered the fishery: this proposal ensures that part of the catcher boat fleet will not be forced to compete with factory trawlers for a portion of the harvest

\* reinforces the intent of the Magnuson Act to allocate the resource at the point of harvest

\* has already received some staff analysis (as Alternative 6) for previous Council deliberations, which facilitates response to concerns recently expressed by Under Secretary Knauss.