

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence Pautzke
Executive Director

DATE: September 24, 2001

SUBJECT: CDQ Program

ESTIMATED TIME
2 HOURS

ACTION REQUIRED

- (a) Initial review of Area 4D/4E regulatory amendment.
- (b) Discussion of CDQ groundfish issues.

BACKGROUND

- (a) Area 4D/4E

Obren Davis, NMFS, will present a draft analysis of two proposed revisions to regulations governing halibut CDQ fishing in Areas 4D and 4E of the Bering Sea. These revisions were requested by the CDQ groups and the Council in late 1998 and early 1999 in order to increase the possibility that the CDQ groups could fully harvest their halibut CDQ allocations and to further develop small, local halibut fisheries in Area 4E.

The first proposal is to revise regulations for a 6,000 pound halibut trip limit in Area 4E so that the trip limit could be lifted after September 1 each year. This revision would allow the CDQ groups to use small vessels to harvest as much halibut CDQ as possible through September 1, but allow them to use larger vessels after September 1. Current regulations effectively prevent the use of larger vessels because the 6,000 pound limit is not profitable for larger vessels. September 1 was proposed as a date for lifting the trip limit because the weather in Western Alaska often prevents small boats from safely fishing after this time of year.

The second proposal is to allow halibut CDQ allocated from Area 4D to be caught in Area 4E. Area 4E is along the coast of Western Alaska and Area 4D is the adjacent area to the west in the Bering Sea. Area 4D includes only two CDQ communities: Gambell and Savoonga on St. Lawrence Island. This proposal would allow the two CDQ groups (Norton Sound and Yukon Delta) that only receive allocations of Area 4D halibut CDQ, but have communities located in Area 4E, an opportunity to develop small, local halibut fisheries. Additionally, the two CDQ groups (Bristol Bay and Coastal Villages) that receive both Area 4D and 4E allocations could use this flexibility to increase the amount available to their existing local halibut fisheries. Allocations of halibut among Areas 4C, 4D, and 4E are not based on biological factors or conservation concerns, therefore, the proposal to allow the catch of Area 4D halibut in Area 4E is not expected to negatively impact halibut stocks.

Final action is scheduled for December 2001 in order to amend the Federal and IPHC regulations by the start of the halibut CDQ fishery in 2002. As part of final action, the Council would be requesting that the IPHC adopt the same changes. The analysis was mailed to you on September 21, 2001. The executive summary is attached as Item C-7(a). It includes the following management alternatives.

Issue 1: Modification or elimination of the Area 4E 6,000 pound trip limit

Alternative 1: No action

Alternative 2: Revise the 6,000 pound trip limit for Area 4E halibut CDQ to apply through September 1 of each year, after which no trip limit applies.

Option: A CDQ group must offer to transfer Area 4E halibut CDQ unharvested by August 15 to any other CDQ group with communities located in or proximate to Area 4E for harvest between August 15 and September 1, unless the CDQ group that was initially awarded the allocation intends to harvest this quota prior to September 1.

(b) Alternative 3: Remove the 6,000 pound halibut CDQ trip limit in Area 4E entirely.

Issue 2: Allow Area 4D halibut CDQ to be harvested in Area 4E

Alternative 1: No action

Alternative 2: Allow the harvest of Area 4D halibut CDQ in Area 4E.

Alternative 3: Allow the harvest of Area 4D halibut CDQ in Area 4E *and* the harvest of Area 4E halibut CDQ in Area 4D.

(b) CDQ multi-species groundfish regulatory changes

This agenda item was originally scheduled as initial review of an analysis of proposed changes to the multi-species CDQ program. Due to the priority placed on the preparation of a separate regulatory analysis for policy changes to the CDQ program and other CDQ-related staff work, that analysis will be brought to the Council at a later date. Instead, Sally Bibb, NMFS, will present a discussion paper (to be distributed at the meeting) regarding two issues that the Council may wish to address when it makes recommendations for the 2002 harvest specifications in December 2001. These are: (1) how the catch of some rockfish species should be managed given changes that were made in the rockfish quota categories in 2001, and (2) accounting for the catch of "other species" in the CDQ fisheries. Both of these issues were addressed in separate interim emergency rules that expire on December 31. The Council may wish to place these issues under the December 2001 harvest specifications agenda for further action.

Rockfish. In December 2000, the Council recommended splitting several BSAI rockfish species groups into individual species quota categories for shortraker, rougheye, and northern rockfish. However, NMFS was unable to fully implement these changes because of limitations in the observer data. NMFS Regional Office and Alaska Fisheries Science Center staff are working to resolve these problems so that the Council's intent may be implemented in the future.

The CDQ groups are allocated a quota of all groundfish species (except squid) and prohibited species (except herring). Each CDQ group must manage its fisheries to stay within all of these quotas. Therefore, creating new, smaller quota categories increases the constraints faced by the CDQ group in fully harvesting its target species (more quotas for bycatch species for smaller amounts). Full implementation of the Council's recommendations would have created allocations to individual CDQ groups that would have ranged from about 100 kg to 300 kg per year. Recognizing this impact, the Council recommended that the CDQ groups continue to be allocated rockfish as a species group. NMFS implemented this recommendation for 2001 through emergency interim rulemaking, which will expire at the end of this year. The BSAI Groundfish Plan

Team will be reviewing this issue at its November meeting. The Council may wish to decide how manage the rockfish allocations to the CDQ Program in 2002 at its December meeting.

“Other species” is a BSAI quota category that is comprised of sharks, skates, sculpin, and octopus. The CDQ Program is allocated 7.5 percent of this TAC as a CDQ reserve. Individual CDQ groups are allocated a percentage of the CDQ reserve each year. They are prohibited from exceeding their “other species” allocation in the same manner as they are prohibited from exceeding all of their other groundfish CDQ allocations. As recommended by the Council, NMFS implemented an emergency interim rule on July 2001, to provide additional “other species” quota to the CDQ groups because their allocations in 2001 were lower than they had been in 1999 and 2000. The CDQ groups were concerned that “other species” bycatch was going to prevent them from fully harvesting their target species. This emergency interim rule also expires on December 31, 2001. A related plan amendment to revise management of BSAI and GOA “other species” is scheduled for initial review in December.

Draft for Council Review

**Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility
Analysis (EA/RIR/IRFA) for a Regulatory Amendment to Modify Harvest Restrictions in
the Western Alaska Community Development Quota Fisheries for Pacific Halibut in Areas
4D and 4E of the Bering Sea**

September 18, 2001

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Executive Summary

This proposed amendment would change Federal regulations at 50 CFR part 679 and International Pacific Halibut Commission (IPHC) regulations to address two different components of the halibut Community Development (CDQ) fishery in Area 4D and 4E. CDQ program participants have identified certain restrictions that may preclude them from successfully harvesting their entire Area 4D and 4E halibut CDQ allocations. One issue is whether to implement changes to the Area 4E 6,000 pound trip limit. Removing the trip limit during part or all of the year could help CDQ groups with halibut CDQ allocations in Area 4E to more successfully harvest those allocations. In October 1998 the North Pacific Fishery Management Council (Council) clarified its intent to retain the Area 4E trip limit through September 1 of each year. A second issue under consideration is whether to allow the harvest of halibut CDQ allocated in Area 4D to be harvested in Area 4E. Such a change could offer CDQ groups that only receive allocations of Area 4D halibut CDQ an opportunity to develop near-shore halibut fisheries. Additionally, CDQ groups that receive both Area 4D and 4E allocations could use this flexibility to augment the amount available to their existing local halibut fisheries. The IPHC noted that it had no objection to such a harvesting scenario in March 1999. At its February 1999 meeting the Council requested that an analysis related to the cross boundary harvest of Area 4D halibut CDQ be prepared. Adoption of the respective alternatives associated with each of these issues may have a bearing on the potential success of the halibut CDQ fisheries in these two areas.

In order to incorporate the Council's recommendations into Federal and IPHC regulations by the start of the halibut CDQ fishery in 2002, the Council needs to review an analysis and make a final decision in December 2001.

The analysis includes the following management alternatives:

Issue 1: Modification or elimination of the Area 4E 6,000 pound trip limit

Alternative 1: No action

Do not revise the Area 4E halibut CDQ 6,000 pound trip limit.

Alternative 2: The Council's Recommendation

Revise the 6,000 pound trip limit for Area 4E halibut CDQ to apply through September 1 of each year, after which no trip limit applies.

Option 1: A CDQ group must offer to transfer Area 4E halibut CDQ unharvested by August 15 to any other CDQ group with communities located in or proximate to Area 4E for harvest between August 15 and September 1, unless the CDQ group that was initially awarded the allocation intends to harvest this quota prior to September 1.

Any halibut CDQ transferred to another CDQ group in compliance with this requirement that is not harvested by September 1 reverts back to the original recipient CDQ group for harvest after September 1 when the trip limit is no longer in effect.

Alternative 3: (offered for consideration by NMFS staff)

Remove the 6,000 pound halibut CDQ trip limit in Area 4E entirely.

Issue 2: Allow Area 4D halibut CDQ to be harvested in Area 4E

Alternative 1: No action

Do not revise the halibut CDQ regulations and IPHC regulations to allow Area 4D halibut CDQ to be harvested in Area 4E.

Alternative 2: The Council's recommendation

Allow the harvest of Area 4D halibut CDQ in Area 4E.

This alternative would require revisions to IPHC regulations to clarify that the Area 4D and 4E catch limits would not be exceeded before closing the regulatory area to fishing. This alternative would also require revisions to the Area 4 CSP to modify the area 4E catch limit to be the sum of the total amount of the halibut CDQ catch limit available in both Areas 4D and 4E..

Alternative 3: (offered for consideration by NMFS staff)

Allow the harvest of Area 4D halibut CDQ in Area 4E *and* the harvest of Area 4E halibut CDQ in Area 4D.

This alternative would require revisions to IPHC regulations to clarify that the Area 4D and 4E catch limits would not be exceeded before closing the regulatory area to fishing. Revisions to the Area 4 CSP to modify the Area 4D and Area 4E catch limits so that each limit is equal to the sum of the total amount of halibut CDQ available in both Areas 4D and 4E would also be necessary.

Alternatives to Address Catch Accounting Issues in the Western Alaska Community Development Quota Fisheries for 2002

Introduction

The purpose of this document is to provide information and alternatives to address several Community Development Quota (CDQ) catch accounting issues in the emergency rule implementing the 2002 groundfish specifications process. Specifically, NMFS is requesting that, in December, the Council address:

- (1) how the catch of some rockfish species should be managed considering changes that were made in the rockfish quota categories in 2001, and
- (2) accounting for the catch of "other species" in the CDQ fisheries, considering that the Council recommended changes through an emergency rule in 2001 that will expire on December 31, 2001.

This document does not contain the full range of possible alternatives to address CDQ fisheries management issues, nor does it address all of the CDQ fisheries management issues that NMFS has been requested to analyze in an Environmental Assessment and Regulatory Impact Review. NMFS is developing an analysis of alternatives to address issues including removing some species from CDQ allocations, developing a framework for deciding which species are allocated to the CDQ Program on an annual basis, increasing CDQ allocations, pooling CDQ allocations among the CDQ groups, underage and overage provisions, and the CDQ fisheries management proposals contained in H.R. 553. However, this analysis will not be complete prior to the December 2001 Council meeting. Therefore, a discussion paper is prepared to provide options on two ongoing catch accounting issues that could be incorporated into the Council's annual specifications recommendations, if the Council decides that changes should be made in CDQ catch accounting for 2002. Completion of the analysis of more comprehensive changes in the CDQ fisheries management regulations will be delayed until analysis and rulemaking on revisions to the CDQ administration and allocation regulations are completed some time in 2002.

Summary of the CDQ Catch Accounting Regulations

Through the CDQ Program, the Council and NMFS allocate a portion of the BSAI groundfish, prohibited species, halibut, and crab total allowable catch (TAC) limits to 65 eligible Western Alaska communities. These communities must use the proceeds from the CDQ allocations to start or support commercial fishery activities that will result in ongoing, regionally based, commercial fisheries or related businesses.

The CDQ program began in 1992 with the allocation of 7.5 percent of the BSAI pollock TAC. The fixed gear halibut and sablefish CDQ allocations began in 1995, as part of the halibut and sablefish Individual Fishing Quota Program. In 1998, allocations of 7.5 percent of the remaining groundfish TACs, and 7.5 percent of the prohibited species catch limits were added to the CDQ program. In 1999, the allocation of pollock to the CDQ Program was increased to 10 percent under the American Fisheries Act (AFA). Appendix Table A-1 shows the Bering Sea and Aleutian Islands area (BSAI) allocations, including the CDQ reserves for 2001.

Current catch accounting regulations for the groundfish and halibut CDQ fisheries include the following elements:

- A percentage of each groundfish total allowable catch (TAC), except squid, is allocated to the CDQ Program as a "CDQ reserve."
- The allocation of squid to the CDQ Program was removed by emergency rule in 1999 and permanently in 2001 due to concern that the occasional high bycatch of squid in the pollock fisheries would prevent the CDQ groups from fully harvesting their 10 percent pollock allocation provided for by the AFA.
- Each CDQ reserve is allocated to the individual CDQ groups based on percentage allocations recommended by the State of Alaska and approved by NMFS. The current CDQ allocations are approved for 2001 and 2002. Appendix Table A-2 shows the CDQ allocations to each CDQ group for 2001.
- Each CDQ group is prohibited from exceeding any of its CDQ allocations and its halibut prohibited species quota (PSQ). If a CDQ group exceeds its CDQ or PSQ allocation for a particular species, NMFS management staff report this overage to NMFS Enforcement.
- The CDQ groups are responsible for managing all of their CDQ fisheries so that they do not exceed any of their CDQ or PSQ limits. NMFS does not open and close directed fisheries for the CDQ Program. Therefore, NMFS does not have to apply retention and discard requirements (maximum retainable bycatch amounts or prohibited status) to manage the CDQ fisheries within their catch limits.
- Although NMFS does not close any CDQ fisheries once an overage has occurred, an overage significantly constrains the CDQ group's further fishing because more catch of the species increases the overage and compounds the fishery violation. Because almost all CDQ species and halibut PSQ are caught in each groundfish CDQ target fishery, an overage of any CDQ or PSQ species effectively limits further CDQ fishing unless the CDQ group decides to continue fishing and risk further violations.
- The CDQ groups are not prohibited from exceeding their crab or salmon PSQs. When they reach these limits, they are prohibited from continuing to fish in certain areas during certain times of the year.

Issues that Need to be Addressed for 2002

Effect of Splitting Rockfish Species Groups in 2001

Prior to 2001, shortraker rockfish, rougheye rockfish, sharpchin rockfish, and northern rockfish were managed under the species categories of "other red rockfish" in the Bering Sea and Shortraker/Rougheye (combined) and Sharpchin/Northern (combined) in the Aleutian Islands (see columns B through D on Table 1). In December 2000, the Groundfish Plan Team recommended changes in the management of these species groups because they were concerned that the single quota for "other red rockfish" in the Bering Sea could result in overfishing one of the rockfish species in the group, particularly northern rockfish, because its emergency rule is much smaller than the populations of the other three rockfish species (NPFMC, 2000). The Plan Team recommended to the Council at its December 2000, meeting that the rockfish species groups by area be respecified to have separate species categories for shortraker rockfish, rougheye rockfish, and northern rockfish. They also recommended that sharpchin rockfish be included in the "other rockfish" quota category, which includes all *Sebastes* and *Sebastolobus* species except Pacific Ocean perch, shortraker, rougheye, and northern rockfish. Although the Plan Team recommended BSAI-wide OFLs and ABCs for the three rockfish species, they recommended separate BS and AI TACs for shortraker, rougheye, and northern rockfish.

The Council's Scientific and Statistical Committee (SSC) agreed with the Plan Team's recommendation to specify separate OFLs and ABCs for the three rockfish species and to place sharpchin rockfish in with "other rockfish." The Council's Advisory Panel (AP) recommended separate BSAI TACs for the three rockfish species and recommended that they be managed on a "bycatch only" status (retention amounts limited). The Council accepted the SSC's and AP's recommendations to split shortraker, rougheye, and northern rockfish from the species groups, to specify BSAI-wide OFLs and ABCs, and separate TACs for the three species for the BS and the AI. Columns E through J of Table 1 shows the Council's recommendations for OFL, ABC, and TACs for the six rockfish species/area categories.

The CDQ fisheries are allocated a percentage of each BSAI TAC except squid. Table 1 (in columns B through D) shows the 2000 CDQ reserve for the three rockfish species categories, the percentage allocation of each CDQ reserve to the six CDQ groups, and the resulting allocation amounts. The BS "other red rockfish" CDQ reserve of 14 mt was the smallest CDQ reserve in 2000.

Table 1. Allocation of Bering Sea and Aleutian Islands Rockfish (Shortraker, Rougheye, Sharpchin, and Northern) in 2000, Under the Council's Recommendations for 2001, and as Implemented by NMFS in 2001 (values in metric tons, unless noted as percentage).

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
	In 2000			Effect of Splitting Groups in 2001						Implemented by NMFS for 2001			
	Other Red Rockfish	Shortraker Rougheye	Sharpchin Northern	Shortraker		Rougheye		Northern		Shortraker/Rougheye		Sharpchin/Northern	
	BS	AI	AI	BS	AI	BS	AI	BS	AI	BS	AI	BS	AI
	Council's Recommended OFL, ABC, TACs												
OFL	259	1,180	6,870	1,020		349		9,020		1,369		9,020	
ABC	194	885	5,150	766		262		6,760		1,028		6,764	
TAC	194	885	5,150	84	682	32	230	19	6,741	116	912	19	6,745
	How TACS would have been allocated to CDQ												
CDQ Reserve	14	66	386	6	51	2	17	1	506	10	68		506
										(8.7) ^{2/}		(1.42) ^{2/}	
	Percent Allocated to Each CDQ Group												
APICDA	23%	22%	30%	23%	22%	23%	22%	23%	30%	23%	22%		30%
BBEDC	18%	18%	15%	18%	18%	18%	18%	18%	15%	18%	18%		15%
CBSFA	8%	7%	8%	8%	7%	8%	7%	8%	8%	8%	7%		8%
CVRF	16%	18%	15%	16%	18%	16%	18%	16%	15%	16%	18%		15%
NSEDC	16%	17%	14%	16%	17%	16%	17%	16%	14%	16%	17%		14%
YDFDA	19%	18%	18%	19%	18%	19%	18%	19%	18%	19%	18%		18%
Total CDQ	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%
	Amount Allocated to Each CDQ Group (CDQ reserve x % allocation)										BS SR/RE/ SH/NO ^{3/}		
APICDA	3	15	116	1.4	11	0.6	4	0.3	152	2.3	15		152
BBEDC	3	12	58	1.1	9	0.4	3	0.3	76	1.8	12		76
CBSFA	1	5	31	0.5	4	0.2	1	0.1	40	0.8	5		41
CVRF	2	12	58	1.0	9	0.4	3	0.2	76	1.6	12		76
NSEDC	2	11	54	1.0	9	0.4	3	0.2	71	1.6	12		71
YDFDA	3	12	69	1.2	9	0.5	3	0.3	91	1.9	12		91
Total CDQ	14	66	386	6.3	51	2.4	17	1.4	506	10	68		506

^{1/} Shortraker, rougheye, sharpchin, and northern were combined to an "other red rockfish" CDQ reserve of 10 mt in 2001.

^{2/} CDQ reserves if allocations would have been 7.5 percent of the new categories of BS shortraker/rougheye and BS sharpchin/northern.

^{3/} Allocations to CDQ groups of BS "other red rockfish" including shortraker, rougheye, sharpchin, and northern rockfish.

Columns E through J of Table 1 show the OFL, ABCs, and TACs recommended by the Council for the rockfish species. If the CDQ reserves would have been created from 7.5 percent of each of these new TACs, some very small CDQ reserves would have resulted. These CDQ reserves and allocations to the CDQ groups are shown in the lower parts of columns E through J. The smallest CDQ reserve would have been the BS northern rockfish under which the TAC of 19 mt would have resulted in a CDQ reserve of 1.425 mt (7.5 percent of 19 mt) and CDQ allocations to the groups that ranged from 100 kg to 300 kg.

The Council recognized that the CDQ reserves for the new rockfish species categories would have been small enough to significantly increase the chance that these quotas of rockfish would be caught before the CDQ groups had harvested some or all of their major target fisheries. Therefore, the Council recommended that the split of the rockfish species groups apply only to the non-CDQ fisheries in 2001.

NMFS was unable to implement the Council's recommendations for splitting the red rockfish species groups into individual species categories due to limitations in NMFS's catch data for shortraker and rougheye rockfish. In 2000, approximately 25 percent of the catch estimates of shortraker and rougheye rockfish based on observer data was in the combined species category of "shortraker/rougheye," meaning that the observer identified the rockfish as either a shortraker or a rougheye, but could not identify the species. This situation occurs primarily when an observer is identifying species from a distance on longline vessels and is unable to physically examine the rockfish for species identification. NMFS is working to improve estimates of the catch of the individual rockfish species, but these sampling changes could not be implemented in 2001 and will not be implemented for 2002. Therefore, in the 2001 groundfish specifications, NMFS separated the BS "other red rockfish" into two categories BS shortraker/rougheye and BS sharpchin/northern. Table 1, columns K through N show the OFL, ABC, and TACs that NMFS implemented in 2001.

NMFS followed the Council's recommendations and continued the CDQ allocations in the same categories as had existed in 2000: BS other red rockfish with a CDQ reserve of 10 mt, AI shortraker/rougheye with a CDQ reserve of 68 mt, and AI sharpchin/northern with a CDQ reserve of 506 mt. The CDQ allocations of these three CDQ reserves to the individual CDQ groups is shown in columns K through N.

NMFS will attempt to collect additional data about the species composition of rockfish on longline vessels in order to provide catch estimates by species rather than as a shortraker/rougheye combined species group. These revisions may occur in 2003, at which time, separate OFLs, ABCs, TACs, and CDQ reserves could be specified for shortraker and rougheye rockfish, as recommended by the Council in December 2000. When this occurs, the problems described for rockfish allocations and the CDQ fisheries likely will increase because the groups will have more individual quotas with smaller annual catch limits.

Alternatives for Rockfish Management in the CDO Fisheries in 2002

Alternative 1: Implement current CDQ regulations by specifying CDQ reserves as a percentage of each rockfish TAC.

This alternative would require no change in regulations and is how management of the rockfish CDQ allocations would be handled if the Council and NMFS had taken no action to maintain the Bering Sea CDQ allocation for "other red rockfish" for 2001.

These management measures include:

- Specify the CDQ reserves as 7.5 percent of the existing rockfish quota categories of (1) BS shortraker/rougheye, (2) BS sharpchin/northern, (3) AI shortraker/rougheye, and (4) AI sharpchin/northern.
- Continue to allocate a percentage of each CDQ reserve to the CDQ groups based on the percentage allocations recommended by the State and approved by NMFS for 2001 and 2002.
- Continue to prohibit each CDQ group from exceeding its CDQ allocations for each CDQ species or species group.

Alternative 1 would result in CDQ allocations for two rockfish quota categories in the BS (BS shortraker/rougheye and BS sharpchin/northern) rather than the single category BS "other red rockfish."

Table 2 shows the CDQ reserves and CDQ allocations to each CDQ group if NMFS would have implemented this split in 2001. The allocations to individual CDQ groups for the 1.42 mt reserve of BS sharpchin/northern rockfish would have ranged from 110 kg to 330 kg.

Table 2. CDQ Reserves and Allocations to each CDQ Group if the BS "Other Red Rockfish" Species Group had been Split into Two Categories in 2001 (values in metric tons).

CDQ Group	% Allocation	BS SR/RE	BS SH/NO
APICDA	23%	2	.33
BBEDC	18%	1.6	.26
CBSFA	8%	.7	.11
CVRF	16%	1.4	.23
NSEDC	16%	1.4	.23
YDFDA	19%	1.6	.27
Total CDQ Reserve	100%	8.7	1.42

BS = Bering Sea;

SR/RE = shortraker and rougheye rockfish

SH/NO = sharpchin and northern rockfish

Since full implementation of the multispecies CDQ regulations in 1999, the CDQ Program as a whole has not exceeded its CDQ reserves for BS "other red rockfish," AI shortraker/rougheye, or AI sharpchin/northern. However, two CDQ groups exceeded their group's allocations of these rockfish species in 1999 and 2000.¹ Seven of the ten overages that have occurred since implementation of the multispecies CDQ program have been in rockfish species groups - four in Pacific Ocean perch and three with the shortraker, rougheye, sharpchin, and northern categories.

Shortraker, rougheye, and northern rockfish are caught in almost all of the CDQ target fisheries to some degree. Appendix Table B.1 shows the distribution of catch of the CDQ and PSQ species in the primary CDQ target fisheries in 2000. In summary,

- **BS "Other red rockfish":** The 2000 CDQ reserve for BS "other red rockfish" was 14 mt and the CDQ groups caught a total of 7 mt, most of it (6 mt) in the longline fisheries for Pacific cod, sablefish, Greenland turbot, or halibut. One metric ton was caught in the BS

¹In 1999, a 2.042 mt overage of AI sharpchin/northern rockfish occurred, and in 2000, 1.2 mt overage of AI shortraker/rougheye and a 0.179 mt overage of BS other red rockfish occurred.

pollock fisheries. Six of the 7 metric tons was shortraker or rougheye and approximately 1 mt was northern rockfish.

- AI sharpchin/northern rockfish: The 2000 CDQ reserve was 386 mt, of which 346 mt, all northern rockfish, was caught. This catch occurred primarily in the Atka mackerel fisheries.
- AI shortraker/rougheye: The 2000 CDQ reserve was 66 mt, of which 35 mt was caught by the CDQ groups. This catch occurred primarily in the Atka mackerel fisheries (15 mt) and the longline Pacific cod fisheries (16 mt).
- Relatively small amounts of all of these rockfish species were caught in every major CDQ target fishery. Therefore, if a CDQ group reached one of these rockfish CDQ allocations, it could not continue to conduct any of its CDQ target fisheries without some risk of catching more of these rockfish species.

Alternative 2: Manage shortraker, rougheye, sharpchin, and northern rockfish as a single CDQ reserve for "other red rockfish" as was done in 2001.

Management measures under Alternative 2 would include:

- Create the "other red rockfish" CDQ reserve from the 7.5 percent allocations of TACs for shortraker/rougheye and sharpchin/northern.
- Allocate a percentage of this CDQ reserve to each CDQ group.
- Continue to prohibit each CDQ group from exceeding its allocation of any groundfish CDQ species, including "other red rockfish."

This alternative would maintain strict quota accountability for all of the rockfish species, but would not create as small CDQ allocations as would occur under Alternative 1. The possibility that the CDQ groups will reach a rockfish CDQ allocation before fully harvesting its target species allocations remains fairly high with this alternative.

Alternative 3: Allocate CDQ reserves following the BSAI quota categories, but do not manage catch of these four rockfish species as strict quotas for each CDQ group.

Alternative 3 would implement the following management measures for the CDQ fisheries by emergency rule for 2002:

- Allocate 7.5 percent of each rockfish species group to CDQ reserves following the same species categories that exist for the non-CDQ fisheries. In 2002, these categories would be BS shortraker/rougheye, BS sharpchin/northern, AI shortraker/rougheye, AI sharpchin/northern.

- Do not further allocate the CDQ reserves for these rockfish species groups to individual CDQ groups.
- Require vessels fishing for the CDQ groups to comply with the same retention requirements as apply in the non-CDQ fisheries for rockfish. In 2001, these rockfish species were "bycatch" status starting at the beginning of the year. Vessels catching these rockfish species were allowed to retain amounts up to the maximum retainable bycatch amounts, which ranged from 2 percent to 15 percent of their retained catch.
- When the catch in the CDQ fisheries reaches the CDQ allocation, further retention of these rockfish species by any vessel CDQ fishing in the appropriate area would be prohibited. This is the same action that is required for the non-CDQ fisheries once catch reaches the non-CDQ fisheries' TAC. NMFS would issue a *Federal Register* notice prohibiting further retention of the species in all of the CDQ fisheries once the allocation is reached, as is done for the non-CDQ fisheries.
- Catch of these rockfish species in the CDQ fisheries beyond the amount allocated to the CDQ fisheries would accrue against the non-CDQ fisheries' TAC. The CDQ fisheries would have to comply with any overfishing closures deemed necessary by NMFS to prevent total catch from reaching the overfishing limit for the species group, including closures of specific CDQ directed fisheries that would apply to all CDQ groups. NMFS would attempt to manage the rockfish TACs so that the non-CDQ fisheries would not be closed earlier or face any additional restrictions as a result of the CDQ groups catching more than their 7.5 percent allocations of these rockfish species groups.

Alternative 3 would continue to hold the CDQ groups accountable for their catch of shortraker, roughey, sharpchin, and northern rockfish, but it would remove the risk that an individual CDQ group would have to stop all target fisheries once it reached its CDQ allocation for one of these rockfish species. The level of accountability for catch in the CDQ fisheries would be moved from the individual CDQ group to all of the CDQ groups together - this is a form of pooling the CDQ allocations and managing certain species at the program or sector level rather than at the individual group level. All groups would have the same retention requirements at the beginning of the year, and all groups would be required to discard all further catch of the species once the CDQ allocation was reached. NMFS would publish a notice in the *Federal Register* to notify the CDQ groups and vessels fishing for them of the change in retention status for each of the four rockfish species groups.

Alternative 3 also would remove the strong incentive that CDQ groups have to minimize rockfish bycatch that exists due to the strict quota accountability and the costs incurred when a bycatch quota is reached before all the target fisheries are conducted. The strict quota accountability of the CDQ Program has focused the CDQ managers' attention on maximizing the harvest of the target species while minimizing bycatch. However, the potential costs of the incentive to reduce bycatch are high. Annual rockfish quotas of several hundred kilograms could easily be caught in a single haul or set by one vessel fishing for a CDQ group. Bycatch rates are difficult to predict

and avoiding one species of bycatch sometimes causes vessel operators to move to other areas where the value of the target species is lower or the bycatch of another species increases.

Unfortunately, it is difficult to develop a middle ground between maximizing the value of the CDQ target fisheries and strict accountability for the catch of all allocated species. Strict quota accountability is the most certain way to keep catch in the CDQ fisheries at or below the CDQ allocation. Relaxing this requirement reduces the need for individual CDQ groups and vessels to pay as close attention to bycatch. Restrictions on the amount of a species that can be retained, or requirements to discard all catch may reduce the catch of valuable species, such as rockfish. However, fishermen still may try to catch a valuable species, retain as much as they can, and discard the rest. In addition, these measures do not effectively reduce the catch of low valued species that are truly incidental catch species, such as the sharks, skates, sculpin, and octopi in the "other species" category, because most of the catch of these species would be discarded regardless of the retention regulations in effect.

Predicting whether Alternative 3 would result in the catch of the rockfish species in the CDQ fisheries that exceeds the 7.5 percent allocation to the program is difficult. In 1999, 2000, and to date in 2001, total catch of these species in the CDQ fisheries has not exceeded the CDQ allocation. However, removing the prohibition against a CDQ group exceeding its CDQ allocation increases the possibility that catch in the CDQ fisheries could exceed the allocation.

Based on 1999 and 2000 catch data, NMFS believes that the CDQ fisheries could maintain rockfish catch at or below the 7.5 percent allocation. However, if the CDQ fisheries change to any large degree, such as development of additional trawl fisheries, rockfish bycatch in the CDQ fisheries could increase. NMFS believes that the potential for development of additional trawl fisheries for the CDQ groups is limited by more than rockfish bycatch issues. CDQ groups probably will not develop trawl fisheries for cod because they receive higher royalties from their longline partners and four of the six CDQ groups have invested in a longline catcher/processors that fish primarily for Pacific cod. NMFS expects that all CDQ groups will continue to lease as much of their Pacific cod CDQ allocations to their longline partners as possible. Development of flatfish CDQ fisheries have been inhibited by rockfish bycatch concerns, but also by a number of other important constraints, including few windows of opportunity for flatfish CDQ fishing, market conditions, and halibut bycatch needs. NMFS is not certain whether relaxing rockfish bycatch restrictions alone would lead to development of the CDQ flatfish fisheries.

From an allocation standpoint, considering whether catch in the CDQ fisheries that exceeds the 7.5 percent CDQ allocation would negatively impact fishermen participating in other non-CDQ fisheries is important. Rockfish are different than squid or "other species," because rockfish catch is fully utilized in the non-CDQ fisheries as bycatch to support other groundfish directed fisheries. The non-CDQ fisheries often reach rockfish TACs before they reach TACs for other directed fisheries. NMFS has closed the Aleutian Islands Atka mackerel fisheries to prevent overfishing of northern rockfish. If catch in the CDQ fisheries were to exceed the amount allocated to the CDQ Program, this catch would be subtracted from the TAC available to the non-CDQ fisheries.

Additional catch in the CDQ fisheries could impact the non-CDQ fisheries in two ways. First, this catch will accrue against the non-CDQ TAC and could cause the status of the rockfish species to change from "bycatch" to "prohibited" status sooner than it would have under Alternative 1. This status change occurs when the catch of the rockfish species reaches its TAC or ABC and further retention is not allowed in order to minimize further catch of the species. Second, additional catch of a rockfish species in the CDQ fisheries could result in catch reaching overfishing limits sooner than it would have under Alternative 1. When catch approaches the overfishing limit, NMFS is required to close directed fisheries that the species may be caught in. These rockfish species groups have small overfishing limits and they are sometimes caught in large quantities in other directed fisheries, particularly the Aleutian Islands Atka mackerel fishery. A small amount of additional catch of rockfish in the CDQ fisheries won't change management measures for the non-CDQ fisheries. However, if significant additional rockfish catch occurs in the CDQ fisheries, it could cause total catch to reach the TAC or overfishing limit for a rockfish species sooner than would have occurred under Alternative 1. If this occurred, closures of non-CDQ directed groundfish fisheries may have to be made sooner than they would have under Alternative 1.

Under Alternative 3, NMFS would monitor the catch of these rockfish species in the CDQ fisheries and would prohibit certain directed fisheries by all CDQ vessels if CDQ catch exceeds the CDQ allocation in large enough quantities to potentially impact the non-CDQ fisheries in either earlier PSC status for the rockfish or earlier overfishing closures. These closures would most likely affect the CDQ fisheries for Atka mackerel in the Aleutian Islands or the longline fisheries for Pacific cod in the BS or AI. Based on CDQ catch and target fisheries in 1999 through 2001, NMFS believes that the potential for closure of CDQ directed fisheries is relatively low if the CDQ fisheries continue to have rockfish catch in similar amounts as they had in 1999 through 2001.

NMFS also does not support managing allocations of these four rockfish species to individual CDQ groups under the provisions of Alternative 3. This would require NMFS to determine when each CDQ group had reached its allocation of each rockfish species group and to publish a separate notice in the *Federal Register* changing the status of rockfish retention for that CDQ group from bycatch to prohibited. With quotas this small, NMFS does not have information about catch in the CDQ fisheries fast enough to know when each CDQ group has reached its CDQ allocation for a particular species. A lag in information of even one day could allow for significant additional catch. This alternative also could require up to 24 *Federal Register* notices to announce a change in the status of rockfish in the CDQ fisheries, rather than four notices under Alternative 3 (one for each of the four rockfish area/species categories for the CDQ Program). This alternative would become even more difficult if the rockfish catch by the CDQ groups significantly exceeded their CDQ allocations and NMFS had to close certain directed CDQ fisheries for individual CDQ groups, rather than for the program as a whole.

Other miscellaneous considerations for rockfish (that I didn't get time to develop in this discussion paper...)

1. Add the alternative to create separate CDQ reserves for shortraker/rougheye and sharpchin/northern in 2002, but do not allocate these reserves to individual CDQ groups. Manage catch by all CDQ groups as a pool and prohibit any further CDQ fishing when the combined catch of the six groups reaches the CDQ reserve. This would place a strict limit on the total catch of these rockfish species in the CDQ fisheries, but would not focus penalties on an individual group for an overage as long as the program as a whole did not reach the allocation. However, this alternative makes each CDQ group very vulnerable to the consequences of the fishing activities of other groups, which they cannot control. There is a high potential for the combined catch of the groups to reach the CDQ allocation requiring closure of important CDQ fisheries later in the year, including pollock B season and Pacific cod.
2. We don't have to use the same management approach for shortraker/rougheye and sharpchin/norther. Maybe the big issue is small CDQ reserves of northern rockfish, but you could continue to have strict quota accountability for shortraker/rougheye.
3. Consider that rockfish bycatch could increase if we have any new CDQ fisheries (flatfish, AI pollock if SSL Alternative 4 is implemented) or increases in TACs (especially Atka mackerel or Pacific cod).

5.2 "Other Species" Bycatch in the CDQ Fisheries

The "other species" quota category in the BSAI includes sharks, skates, sculpin, and octopus. The CDQ groups are allocated 7.5 percent of the BSAI "other species" TAC each year. Table 3 shows the annual catch limits, TAC subdivision, and catch for "other species" since 1999, the first full year of the multispecies groundfish CDQ fisheries. The catch in the CDQ fisheries in 1999 and 2000 did not exceed the 7.5 percent allocation of "other species" to the program, and the total catch in the CDQ and non-CDQ fisheries together was well below the TAC. Thus far in 2001, the CDQ catch has not exceeded the 7.5 percent allocation and the total catch remains below the TAC.

Table 3. OFL, ABC, TAC, CDQ Reserve, and Catch for "Other Species," 1999 through September 7, 2001 (values in metric tons).

	1999	2000	2001 (through 9/7)
OFL	129,000	71,500	69,000
ABC	32,860	31,360	33,600
TAC	32,860	31,360	26,500
CDQ Reserve (7.5%)	2,464	2,352	1,988
Catch			
CDQ Fisheries	1,908	2,060	1,349
Non-CDQ Fisheries	18,677	24,030	14,809
Total Catch	20,585	26,090	16,158
TAC	32,860	31,360	26,500
Remaining TAC	12,275	5,270	10,342

When NMFS implemented the multispecies CDQ Program in 1998, it recognized that the catch of "other species" and other non-target species like arrowtooth flounder and squid could prevent the CDQ groups from fully harvesting their allocations of target species. To provide some additional flexibility for these bycatch species with a relatively large buffer between the TAC and the OFL, NMFS created the CDQ non-specific reserve for each CDQ group, which, in 1998, was comprised of 15 percent of the CDQ reserves of arrowtooth flounder, squid, and "other species." The CDQ groups were able to transfer quota from the CDQ non-specific reserve to their CDQ

allocations of arrowtooth flounder, squid, or "other species." In 1999, squid was removed as a CDQ species and did not contribute to the CDQ non-specific reserve that year. Permanent rulemaking to remove squid as a CDQ species was implemented in 2001 (66 FR 13672; March 7, 2001). To date, the CDQ groups have used the CDQ non-specific reserve to provide additional quota to their "other species" CDQ allocations.

Table 4 shows the CDQ reserves for arrowtooth flounder, squid, and "other species" from 1999 through 2001, and the amount of each CDQ reserve that was added to the CDQ non-specific reserve. In 1999 and 2000, the arrowtooth flounder TAC was about 130,000 mt which lead to CDQ allocations of about 10,000 mt (10,076 mt in 1999 and 9,825 mt in 2000). The contribution of 15 percent of the arrowtooth flounder CDQ reserve to the CDQ non-specific reserve was about 1,500 mt (1,511 mt in 1999 and 1,474 mt in 2000). In 1999 and 2000, the total CDQ reserve for "other species" was 2,464 mt (1999) and 2,353 mt (2000). Therefore, the CDQ non-specific reserves from arrowtooth flounder and squid (1,511 mt in 1999 and 1,496 mt in 2000) would have allowed the CDQ groups to significantly increase their "other species" CDQ allocations through transfer from the CDQ non-specific reserve. In 1999, the CDQ groups did not transfer any quota from the CDQ non-specific reserve to their "other species" CDQ allocations and in 2000, they transferred about 600 mt.

Table 4. Catch limits and contribution to the CDQ non-specific reserve for arrowtooth flounder, squid, and "other species," 1999 - 2001 (values in metric tons).

	Year	OFL	ABC	TAC	CDQ Reserve	15% to CDQ NSR
Arrowtooth Flounder	1999	219,000	140,000	134,354	10,076	1,511
	2000	160,000	131,000	131,000	9,825	1,474
	2001	141,500	117,000	22,011	1,651	248
Squid	1999	2,620	1,970	1,970	0	0
	2000	2,620	1,970	1,970	147	22
	2001	2,620	1,970	1,970	0	0
"Other Species"	1999	129,000	32,860	32,860	2,464	370
	2000	71,500	31,360	31,360	2,352	353
	2001	69,000	33,600	26,500	1,988	298
Total CDQ NSR	1999					1,881
	2000					1,849
	2001 (before EIR)					546
	2001 (after EIR)					1,124

In 2001, the "other species" CDQ reserve was 364 mt less than in 2000 (from 2,352 mt to 1,988 mt). However, the arrowtooth flounder TAC was reduced from 131,000 mt to 22,011 mt, which reduced the arrowtooth flounder CDQ reserve by 8,174 mt and the contribution of arrowtooth flounder to the CDQ non-specific reserve from 1,474 mt in 2000 to 248 mt in 2001. The result of the change in the arrowtooth flounder TAC was that significantly less quota was available for transfer from the CDQ non-specific reserve in 2001 than was available in 1999 and 2000. Neither NMFS or the Council was aware of the potential impact of the change in the arrowtooth flounder TAC on the CDQ fisheries at the time the Council made its recommendations on the 2001 groundfish specifications or when NMFS implemented these specifications through emergency rule in January 2001.

At the April 2001 Council meeting, CDQ representatives testified about their concern that vessels fishing for the groups were going to catch the "other species" CDQ allocation before they fully harvested target species such as pollock, Pacific cod, sablefish, and Greenland turbot (see letter to the Council attached as Appendix C). The primary reasons they cited for this problem was the reduction in the arrowtooth flounder TAC and the resulting reduction in the amount of quota available for transfer from the CDQ non-specific reserve to the "other species" CDQ allocations. The CDQ groups requested that the Council state its intent that the CDQ non-

specific reserve was intended to provide adequate "other species" to allow reasonable CDQ fisheries, and that the reduction in arrowtooth flounder TAC had a large and unintended impact on the "other species" quotas available to the CDQ groups. The Council did so, by passing a motion related to the staff tasking of an FMP amendment analysis on changes to the overall management of "other species" as follows:

...the Council's original intent [was] that the non-specific reserve was intended in part to provide adequate other species to allow reasonable CDQ fisheries and that the reduction in arrowtooth TAC had a large and unintended impact on other species quotas available to the CDQ groups. (NPFMC minutes from the April 2001 meeting, page 25-26.)

NMFS attempted to address this issue through an in-season adjustment, but determined that this was not possible under current regulations. NMFS notified the CDQ groups and the Council that emergency rulemaking would be required to make any changes in the amount of quota contributed to the CDQ non-specific reserve or the "other species" CDQ allocations in 2001. At its June 2001 meeting, the Council recommended that NMFS implement "an emergency rule changing the percentage contribution of arrowtooth flounder CDQ reserve to the CDQ non-specific reserve from 15% to 50% for the year 2001." NMFS implemented this provision in an emergency rule on July 17, 2001 (66 FR 37167). This action provided an additional 578 mt of quota in the CDQ non-specific reserve that could be transferred by the CDQ groups to their "other species" CDQ allocations.

To date in 2001, the CDQ groups have transferred 541 mt from the CDQ non-specific reserve to their "other species" CDQ allocations, for a total of 2,529 mt of "other species" CDQ available to catch. Their original CDQ allocation of "other species" was 1,988 mt. Through September 15, 2001, the CDQ groups had caught 1,355 mt of "other species" in their CDQ fisheries.

The emergency rule providing additional quota to the CDQ groups' "other species" CDQ allocations will expire on December 31, 2001. NMFS requests that the Council clarify what it meant by its intent that the CDQ non-specific reserve provide for "reasonable" CDQ fisheries. If the Council would like to revise the CDQ Program catch accounting regulations so that the catch of "other species" does not constrain the CDQ groups' target fisheries, NMFS recommends that a more direct approach be taken. NMFS does not support continuing to revise the contribution of species to the CDQ non-specific reserve as a way to relieve constraints associated with the "other species" CDQ allocations because: (1) it is difficult to select an appropriate amount of "other species" CDQ that would ensure that no CDQ fisheries are constrained, (2) consideration of the impact on the CDQ non-specific reserve should not be a major factor when the Council makes recommendations for groundfish TAC levels, and (3) current regulations do not provide flexibility to adjust these percentages in the specifications process.

In terms of emergency action that could be taken for the 2002 fisheries, NMFS believes the following alternatives exist.

Alternative 1: Status quo: Implement the current CDQ regulations by specifying the “other species” CDQ reserve as a percentage of the “other species” TAC and continue the allocation of 15 percent of the arrowtooth flounder and “other species” CDQ reserves to the CDQ non-specific reserve.

This alternative would require no change in regulations and is how management of the “other species” and arrowtooth flounder CDQ reserves have been handled since implementation of the multispecies CDQ regulations in 1998.

These management measures include:

- Specify the “other species” CDQ reserve as 7.5 percent of the “other species” TAC.
- Continue to allocate a percentage of each CDQ reserve to the CDQ groups based on the percentage allocations recommended by the State and approved by NMFS for 2001 and 2002.
- Create a CDQ non-specific reserve for each CDQ group that is comprised of 15 percent of its allocation of “other species” and arrowtooth flounder. The CDQ group may transfer quota from the CDQ non-specific reserve to their CDQ accounts for either “other species” or arrowtooth flounder.
- Continue to prohibit each CDQ group from exceeding its CDQ allocations for each CDQ species or species group.

Alternative 1 would mean that each CDQ group must manage its allocation of “other species” CDQ and the possibility exists that it would reach its “other species” allocation before its CDQ target species were harvested. If this occurred, the CDQ group would have to decide whether to stop other CDQ fisheries and lose the revenue from these fisheries, or continue to conduct other CDQ fisheries and risk exceeding its “other species” allocation and violating NMFS regulations.

Under Alternative 1, the catch of “other species” in the CDQ fisheries is limited to the 7.5 percent allocation of “other species” plus quota available for transfer from the CDQ non-specific reserve. This amount depends on the arrowtooth flounder TAC and CDQ reserve, but has been as high as 1,500 mt in 1999 and as low as about 250 mt in 2001. This feature of the CDQ Program means that the amount of “other species” CDQ available can vary widely. Alternative 1 provides the greatest assurance that the catch of “other species” in the CDQ fisheries will remain at or below the CDQ allocation because it is unlikely that any CDQ group would incur significant overages of any CDQ allocation to continue catching target fisheries for which it still had remaining quota.

Alternative 2: Allocate 7.5 percent of the “other species” TAC to the CDQ Program, but do not manage the catch of “other species” as a strict quota for each CDQ group.

Alternative 2 would implement the following management measures for the CDQ fisheries by emergency rule for 2001:

- Allocate 7.5 percent of the “other species” TAC to the CDQ Program.
- Do not further allocate the “other species” CDQ reserve to individual CDQ groups.
- Suspend implementation of the CDQ non-specific reserve and establish individual CDQ allocations based only on the percentage allocation of TAC of each species or species group.
- Specification of retention or discard requirements that should apply to the catch of “other species” in the CDQ fisheries. In recent years, the “other species” TAC has been on bycatch status for the AFA fisheries and on bycatch status for non-trawl gear until May 1 when their halibut PSC for “other non-trawl” target fisheries becomes available.
- If the catch of “other species” in the CDQ fisheries reaches the CDQ allocation, further catch would accrue against the non-CDQ portion of the TAC. If total catch in the CDQ and non-CDQ fisheries combined reaches the TAC, further retention of “other species” would be prohibited for the CDQ and non-CDQ fisheries, although this measure would do little to reduce the catch of “other species,” because most of it is discarded in the first place. In the unlikely event that the total catch of “other species” approaches its overfishing limit, NMFS would close directed fisheries in which further catch of “other species” would be expected. These closures likely would affect both the CDQ and non-CDQ fisheries.

Alternative 2 would continue to allocate “other species” to the CDQ Program, but would allow catch in the CDQ fisheries to exceed the CDQ allocation as long as total catch in the CDQ and non-CDQ fisheries did not exceed the OFL “other species.” This alternative is slightly different from the Alternative 3 proposed for rockfish because it does not require discard of “other species” once catch in the CDQ fisheries reaches the CDQ allocation. Discards, through maximum retainable bycatch amounts or prohibited species status, would only occur if the total catch of “other species” in the CDQ and non-CDQ fisheries reached the TAC. This distinction is made for “other species” because total catch in recent years has not reached the TAC, no directed fisheries for “other species” are conducted, and most of the catch of “other species” is discarded.

Alternative 2 would eliminate the potential that the catch of “other species” in the CDQ fisheries would prevent the CDQ groups from conducting their fisheries for CDQ target species. This action would increase the chance that the CDQ groups would be able to harvest their target species. It would also eliminate the potential for a CDQ group to incur a violation of NMFS regulations related to overages of the “other species” quota, and the resulting enforcement action and penalties.

The CDQ non-specific reserve would be suspended under Alternative 2. The CDQ groups would no longer need a means for increasing their "other species" CDQ allocations, because they no longer would have strict quotas for these species.

Allowing catch of "other species" in the CDQ fisheries to exceed the 7.5 percent allocation is unlikely to negatively affect any other non-CDQ fisheries because no directed fisheries are conducted for these species and total catch has not reached the TAC in recent years.

Alternative 3: Do not allocate a percentage of the "other species" TAC to the CDQ Program in 2002.

Alternative 2 would implement the following management measures for the CDQ fisheries by emergency rule for 2001:

- Do not allocate 7.5 percent of the "other species" TAC to the CDQ Program.
- Accrue the catch of "other species" in the CDQ fisheries against a single TAC for "other species" along with the catch from the non-CDQ fisheries.
- Implement restrictions on the retention of "other species" if total catch approaches the TAC. Require discard of "other species" if total catch reaches the TAC. Apply any overfishing closures to both CDQ and non-CDQ fisheries.
- Suspend implementation of the CDQ non-specific reserve and establish individual CDQ allocations based only on the percentage allocation of TAC of each species or species group.

Alternative 3 has almost exactly the same affect as Alternative 2 because each alternative allows catch of "other species" in the CDQ fisheries unless limited by the TAC or overfishing limit and does not impose strict quota limits on the individual CDQ groups.

Alternative 3 is proposed as an alternative for "other species" CDQ, but not for the shortraker, rougheye, sharpchin, and northern CDQ allocations. The difference between the two species groups is in the potential impact of CDQ catch exceeding the 7.5 percent CDQ allocation. For "other species," if the CDQ catch exceeds the CDQ allocation, it is unlikely that total catch in the CDQ and non-CDQ fisheries will reach the TAC (based on the last few years experience). Additional catch in the CDQ fisheries also would not negatively impact other non-CDQ groundfish directed fisheries unless the overfishing level for "other species", which NMFS believes is unlikely. NMFS would reconsider this recommendation if the 2002 OFL, ABC, or TAC for "other species" changed significantly, however this is not expected at this time.

This recommendation also will need to be evaluated in the future, if the Council takes action to separate sharks, skates, sculpins, or octopus from the BSAI "other species" category and manage any of these as individual species groups. In that case, different overfishing levels, TACs, and CDQ allocations would be created which may lead to different impacts than are expected when "other species" are managed as a species group.

APPENDIX B

Summary of the CDQ Fisheries in the 2000

Appendix Table B.1 summarizes catch in the 2000 CDQ fisheries by gear and target species. Column A shows the species and species groups that are allocated to the CDQ Program. Page B.1 shows the catch of the primary CDQ target species (sablefish, pollock, Pacific cod, Atka mackerel, Greenland turbot, and flatfish). Pages B.2 and B.3 show the catch of the groundfish bycatch species of rockfish, squid, sharks, skates, sculpin, and octopi. Page B.4 shows the catch of prohibited species.

Column B of Appendix Table B.1 shows the 2000 CDQ reserves. Columns C and D shows the total catch of each species in all CDQ fisheries and the percent of the CDQ reserve represented by that catch. For example, The CDQ groups received an allocation of 147 metric of fixed gear sablefish in 2000 and they harvested 66 mt which is 45 percent of the allocation.

Columns E through P show the distribution of the catch among the primary CDQ target fisheries including the trawl fisheries for pollock, Atka mackerel, and flatfish; the longline fisheries for Pacific cod, sablefish, Greenland turbot, and halibut; and the pot fisheries for Pacific cod and sablefish. The target fishery designations are based on the predominant species in each haul or set. This method works fairly well for assigning target fisheries for vessels using trawl and pot gear. However, it doesn't work as well for longline gear, because periodically the vessel has a high catch of rockfish or skates, which probably are not valid target fisheries. However, it is difficult to determine from the catch data whether the vessels which of the primary longline target species the vessel operator was fishing for, so the catch data was presented under the target fishery designations of the predominant species.

Some highlights from Appendix Table B.1 include:

- In 2000, 100 percent of the pollock, about 93 percent of the Pacific cod, and 90 percent of the Atka mackerel CDQ allocations were harvested.
- Smaller percentages of other important target species were harvested, including about 36 percent of the fixed gear sablefish allocation and 44 percent of the Greenland turbot allocation.
- The CDQ groups have never harvested significant amounts of their flatfish allocations due primarily to length of time that the species were available in the non-CDQ fisheries, market conditions, and, to a lesser degree, bycatch considerations.
- The primary groundfish bycatch species in the CDQ fisheries are rockfish, squid, and "other species." In 2000, the CDQ groups caught approximately 88 percent of their "other species" allocation, 90 percent of their AI sharpchin/northern allocation (all of this was northern rockfish), 71 percent of their AI other rockfish allocation, 53 percent of their AI shortraker/rougheye allocation, 51 percent of their BS other red rockfish (shortraker,

roughey, sharpchin, and northern) allocation, and 24 percent of their BS other rockfish allocation.

- Although the CDQ groups harvested 51 percent of their BS other red rockfish allocation, which left 49 percent remaining at the end of the year, there is a relatively small amount available in this annual allocation - 14 metric tons in 2000. It would be relatively easy for a CDQ group to exceed its allocation of other red rockfish by a large catch of rockfish in a couple of hauls or sets.

Appendix Table B.1. Catch by Species in the 2000 CDQ Fisheries by Gear and Target (values in metric tons unless otherwise noted).

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Species	2000 CDQ Reserve	2,000 Catch	% of CDQ Reserve	Trawl Fisheries by Target			Longline Fisheries (Target Fishery/Predominant Species)						Pot Fisheries by Target		
				Pollock	Atka Mackerel	Flatfish	Pacific Cod	Sablefish	Greenland Turbot	Rockfish	Other Species	Halibut	Total Longline	Pacific Cod	Sablefish
BS FG Sablefish	147	66	45%				1	22	25		5		53		13
AI FG Sablefish	364	120	33%				0.01	59	7	1	7	2	76		44
BS Sablefish	55	6	11%	0.16		6	0.002					0.19	0.19		
AI Sablefish	45	1	1%		1	0.05									
BS Pollock	113,900	113,554	100%	113,554											
Pacific Cod	14,475	13,527	93%	262	345	97	12,555	1	0.08	0.17	58	25	12,639	183	0.34
WAI Atka Mackerel	2,227	1,788	80%		1,779		9								
CAI Atka Mackerel	1,852	1,807	98%		1,802	0.23	5	0.01			0.11		5		
EAI/BS Atka Mackerel	1,230	1,192	97%	0.04	1,182	10	0.126							0.21	
Yellowfin Sole	9,244	219	2%	98	0.04	114	7				0.02	0.03	7		
Rock Sole	10,107	401	4%	376	2	21	3	0.00			0.11	0.01	3	0.03	0.00
BS Greenland Turbot	467	244	52%	10		8	6	5	196		11	1	218		8
AI Greenland Turbot	230	65	28%		23	0.15	2	19	13	1	5	1	40		2
Arrowtooth Flounder	9,825	286	3%	79	23	31	107	6	18	1	5	5	142	0.01	11
Flathead Sole	3,948	439	11%	254	0.07	154	29		0.15		0.35	0.09	30		
Other Flatfish															
Other Flatfish		0.06					0.06						0.06		
Dover Sole		0.11			0.002	0.10	0.01	0.01					0.01		
Rex Sole		9		1	0.23	7	0.01		0.001			0.001	0.01		
Butter Sole		0.25		0.20			0.04				0.002		0.04		
Starry Flounder		5		5			0.01						0.01		
Petrale Sole		0.01		0.01											
Alaska Plaice Flounder		66		3		63									
Total, Other Flatfish	6,285	80	1%	9	0.24	71	0.12	0.01	0.001		0.002	0.001	0.14		

Appendix Table B.1. Catch by Species in the 2000 CDQ Fisheries by Gear and Target (values in metric tons unless otherwise noted).

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Species	2000 CDQ Reserve	2,000 Catch	% of CDQ Reserve	Trawl Fisheries by Target			Longline Fisheries (Target Fishery/Predominant Species)					Pot Fisheries by Target			
				Pollock	Mackerel	Flatfish	Pacific Cod	Sablefish	Greenland Turbot	Rockfish	Other Species	Hallbut Longline	Total	Pacific Cod	Sablefish
BS Pacific Ocean Perch	195	1	1%	0.27		1	0.01					0.01	0.02		
WAI Pacific Ocean Perc	425	372	87%		372		0.09						0.09		
CAI Pacific Ocean Percl	263	216	82%		216	0.004	0.06						0.06		
EAI Pacific Ocean Perch	234	167	72%		167	0.42	0.09						0.09		0.001
BS Other Red Rockfish															
Shorotraker/Rougheye Rockfish		2					0.05		0.13		2		2		
Northern Rockfish		1		0.32			1					0.19	1	0.08	
Rougheye Rockfish		2		0.10		0.04	2					0.03	2		
Shorotraker Rockfish		2		0.18		0.05	0.08	0.03	1		1	0.35	2	0.01	
Total, BS ORR	14	7	51%	1	0	0	2	0.03	1	0.00	3	1	6	0.09	
AI Sharpchin/Northern Rockfish															
Northern Rockfish	386	346	90%		335	2	10				0.012		10	0.001	
AI Shorotraker/Rougheye Rockfish															
Shorotraker/Rougheye Rockfish		14			4		8	0.14	0.44	1	0.02		10		
Rougheye Rockfish		14			7		7	0.36	0.07	0.00		0.18	7	0.004	0.03
Shorotraker Rockfish		7			4		1	1	0.30	0.49	0.39	0.12	3		0.04
Total AI SR/RE	66	35	53%	0	15	0.000	16	2	1	2	0.40	0.30	20	0.07	
BS Other Rockfish															
Thornyhead Rockfish		5		1		0.03	0.04	1	2		0.26	0.07	3.16		0.02
Yelloweye Rockfish		0.07					0.07						0.07		
Dusky Rockfish		2		0.17		0.01	1					0.33	1.44	0.13	
Redstripe Rockfish		0.05				0.01	0.04						0.04		
Blackgill Rockfish		0.00						0.002					0.00		
Harlequin Rockfish		0.00													
Unidentified Rockfish		0.02					0.02						0.02		
Total BS OR	27	6	24%	2	0	0.05	1	1	2	0	0.26	0.40	5	0.13	0.02

Appendix Table B.1. Catch by Species in the 2000 CDQ Fisheries by Gear and Target (values in metric tons unless otherwise noted).

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Species	2000 CDQ Reserve	2,000 Catch	% of CDQ Reserve	Trawl Fisheries by Target			Longline Fisheries (Target Fishery/Predominant Species)						Pot Fisheries by Target		
				Pollock	Atka Mackerel	Flatfish	Pacific Cod	Sablefish	Greenland Turbot	Rockfish	Other Species	Hallbut Longline	Total	Pacific Cod	Sablefish
AI Other Rockfish															
Thornyhead Rockfish		12			1		1	6	1	1	2	0	11		0.01
Yelloweye Rockfish		0.30					0.01	0.20				0.10	0.30		
Redbanded Rockfish		0.14									0.14		0.14		
Dusky Rockfish		21			15	1	5				0.003	0.004	5	0.01	
Redstripe Rockfish		0.13			0.13										
Darkblotched Rockfish		0.01			0.01										
Black Rockfish		0.06					0.06								
Harlequin Rockfish		0.20			0.19	0.001									0.01
Aurora Rockfish		0.00													0.001
Unidentified Rockfish		2			0.01		2				0.14		2		
Total AI OR	51	36	71%		16	1	8	6	1	1	3	0.23	19	0.01	0.02
Squid	147	51	35%		49	2	0.21	0							
Other Species															
Sculpins		400			18	22	21	325	0.03	7	0.002	5	1	338	1
Octopus		7			0.18	0.05		5		0.01		0.02	5	2	
Skates		1,597			51	18	38	1,394	3	9	0.165	77	7	1,490	
Sharks		14						12				3	14		0.06
Salmon Shark		2			2			0.13							0.07
Spiny Dogfish Shark		0.48			0.003	0.003		0.47				0.003	0.47		
Pacific Sleeper Shark		39			12			24		2		2	28		
Total, Sharks					13	0.003		36		2		4	43		0.13
Total, Other Species	2,352	2,060	88%		82	40	59	1,760	3	17	0.17	86	7	1,875	4

Appendix Table A-1.—2001 Acceptable Biological Catch (ABC), Total Allowable Catch (TAC), Initial TAC (ITAC), CDQ Reserve Allocation, and Overfishing Levels of Groundfish in the Bering Sea and Aleutian Islands Area (BSAI)¹

[All amounts are in metric tons]

Species	Area	Overfishing level	ABC	TAC	ITAC ²	CDQ reserve ³
Pollock ⁴	Bering Sea (BS)	3,536,000	1,842,000	1,400,000	1,209,600	140,000
	Aleutian Islands (AI)	31,700	23,800	2,000	1,800	200
	Bogoslof District	60,200	8,470	1,000	900	100
Pacific cod	BSAI	248,000	188,000	188,000	159,800	14,100
Sablefish ⁵	BS	1,910	1,560	1,560	663	215
	AI	3,070	2,500	2,500	531	422
Atka mackerel	Total	138,000	69,300	69,300	58,905	5,198
	Western AI	.....	27,900	27,900	23,715	2,093
	Central AI	.....	33,600	33,600	28,560	2,520
	Eastern AI/BS	.....	7,800	7,800	6,630	585
Yellowfin sole	BSAI	209,000	176,000	113,000	96,050	8,475
Rock sole	BSAI	271,000	228,000	75,000	63,750	5,625
Greenland turbot	Total	31,000	8,400	8,400	7,140	630
	BS	.....	5,628	5,628	4,784	422
	AI	.....	2,772	2,772	2,356	208
Arrowtooth flounder	BSAI	141,500	117,000	22,011	18,709	1,651
Flathead sole	BSAI	102,000	84,000	40,000	34,000	3,000
Other flatfish ⁶	BSAI	147,000	122,000	28,000	23,800	2,100
Pacific ocean perch	BS	2,040	1,730	1,730	1,471	130
	AI Total	11,800	10,200	10,200	8,670	765
	Western AI	.....	4,740	4,740	4,029	356
	Central AI	.....	2,560	2,560	2,176	192
	Eastern AI	.....	2,900	2,900	2,465	218
Sharpchin/Northern ⁷	BSAI	9,020	6,764	6,764	5,749	See 7
	BS			19	16	
	AI			6,745	5,733	506
Shortraker/Roughye ⁷	BSAI	1,369	1,028	1,028	874	See 7
	BS			116	99	
	AI			912	775	68
Other rockfish ⁸	BS	482	361	361	307	27
	AI	901	676	676	575	51
Squid	BSAI	2,620	1,970	1,970	1,675	148
Other species ⁹	BSAI	69,000	33,600	26,500	22,525	1,988
TOTAL		4,836,812	2,927,359	2,000,000	1,717,494	185,400

FOOTNOTES TO TABLE 1:

¹ Amounts are in metric tons. These amounts apply to the entire Bering Sea (BS) and Aleutian Islands (AI) subarea unless otherwise specified. With the exception of pollock, and for the purpose of these specifications, the Bering Sea subarea includes the Bogoslof District.

² Except for pollock and the portion of the sablefish TAC allocated to hook-and-line or pot gear, 15 percent of each TAC is put into a reserve. The ITAC for each species is the remainder of the TAC after the subtraction of the reserve.

³ Except for pollock, squid, and the hook-and-line or pot gear allocation of sablefish, one half of the amount of the TACs placed in reserve, or 7.5 percent of the TACs, is designated as a CDQ reserve for use by CDQ participants (see § 679.31(a)(1)).

⁴ The AFA requires that 10 percent of the annual pollock TAC be allocated as a directed fishing allowance for the

FOOTNOTES TO APPENDIX TABLE A-1 (CONTINUED):

CDQ sector. Then, NMFS is subtracting 4 percent of the remainder as an incidental catch allowance of pollock, which is not apportioned by season or area. The remainder is further allocated by sector as follows: inshore, 50 percent; catcher/processor, 40 percent; and motherships, 10 percent. NMFS, under regulations at § 679.24(b)(4), prohibits nonpelagic trawl gear to engage in directed fishing for non-CDQ pollock in the BSAI.

⁵ The ITAC for sablefish reflected in Table 1 is for trawl gear only. Regulations at § 679.20(b)(1) do not provide for the establishment of an ITAC for the hook-and-line or pot gear allocation for sablefish. Twenty percent of the sablefish TAC allocated to hook-and-line gear or pot gear and 7.5 percent of the sablefish TAC allocated to trawl gear is reserved for use by CDQ participants (see § 679.31(c)).

⁶ "Other flatfish" includes all flatfish species, except for Pacific halibut (a prohibited species), flathead sole, Greenland turbot, rock sole, yellowfin sole, and arrowtooth flounder.

⁷ The CDQ reserves for shortraker, rougheye, sharpchin, and northern rockfish will continue to be managed as the "other red rockfish" complex for the BS. For 2001 the CDQ reserve is 10 mt.

⁸ "Other rockfish" includes all Sebastes and Sebastolobus species except for Pacific ocean perch, sharpchin, northern, shortraker, and rougheye rockfish.

⁹ "Other species" includes sculpins, sharks, skates and octopus. Forage fish, as defined at § 679.2 are not included in the "other species" category.

MS CDQ/PSQ Annual Allocation Matrix 2001

National Marine Fisheries Service
Alaska Regional Office
Community Development Quota Program

CDQ Reserve Category	CDQ Group Allocations/Amounts														
	Amount	APICDA		BBEDC		CBSFA		CVRP		NSEDC		YDFDA		Totals	
		%	Amt	%	Amt	%	Amt	%	Amt	%	Amt	%	Amount		
BS FG Sablefish	156.000	15	23.400	22	34.320	18	28.080	0	0.000	20	31.200	25	39.000	100	156.000
AI FG Sablefish	375.000	15	56.250	20	75.000	0	0.000	30	112.500	20	75.000	15	56.250	100	375.000
BS Sablefish	59.000	17	10.030	20	11.800	10	5.900	17	10.030	18	10.620	18	10.620	100	59.000
AI Sablefish	47.000	24	11.280	23	10.810	9	4.230	10	4.700	10	4.700	24	11.280	100	47.000
BS Pollock	140,000.000	14	19,600.000	21	29,400.000	4	5,600.000	24	33,600.000	23	32,200.000	14	19,600.000	100	140,000.000
AI Pollock	200.000	14	28.000	21	42.000	4	8.000	24	48.000	23	46.000	14	28.000	100	200.000
Bogoslof Pollock	100.000	14	14.000	21	21.000	4	4.000	24	24.000	23	23.000	14	14.000	100	100.000
Pacific Cod	14,100.000	16	2,256.000	20	2,820.000	10	1,410.000	17	2,397.000	18	2,538.000	19	2,679.000	100	14,100.000
WAI Atka Mackerel	2,093.000	30	627.900	15	313.950	8	167.440	15	313.950	14	293.020	18	376.740	100	2,093.000
CAI Atka Mackerel	2,520.000	30	756.000	15	378.000	8	201.600	15	378.000	14	352.800	18	453.600	100	2,520.000
EAI/BS Atka Mackerel	585.000	30	175.500	15	87.750	8	46.800	15	87.750	14	81.900	18	105.300	100	585.000
Yellowfin Sole	8,475.000	28	2,373.000	24	2,034.000	8	678.000	6	508.500	7	593.250	27	2,288.250	100	8,475.000
Rock Sole	5,625.000	24	1,350.000	23	1,293.750	8	450.000	11	618.750	11	618.750	23	1,293.750	100	5,625.000
BS Greenland Turbot	422.000	20	84.400	22	92.840	7	29.540	15	63.300	15	63.300	21	88.620	100	422.000
AI Greenland Turbot	208.000	16	33.280	20	41.600	5	10.400	21	43.680	20	41.600	18	37.440	100	208.000
Arrowtooth Flounder	1,651.000	24	336.804	22	308.737	9	126.301	11	154.368	10	140.335	24	336.804	100	1,403.349
Flathead Sole	3,000.000	20	600.000	20	600.000	10	300.000	15	450.000	15	450.000	20	600.000	100	3,000.000
Other Flatfish	2,100.000	25	525.000	23	483.000	9	189.000	10	210.000	10	210.000	23	483.000	100	2,100.000
BS Pacific Ocean Perch	130.000	18	23.400	21	27.300	7	9.100	18	23.400	18	23.400	18	23.400	100	130.000
WAI Pacific Ocean Perch	356.000	30	106.800	15	53.400	8	28.480	15	53.400	14	49.840	18	64.080	100	356.000
CAI Pacific Ocean Perch	192.000	30	57.600	15	28.800	8	15.360	15	28.800	14	26.880	18	34.560	100	192.000
EAI Pacific Ocean Perch	218.000	30	65.400	15	32.700	8	17.440	15	32.700	14	30.520	18	39.240	100	218.000
BS Other Red Rockfish	10.000	23	2.300	18	1.800	8	0.800	16	1.600	16	1.600	19	1.900	100	10.000
AI Sharpchin/Northern Rockfish	506.000	30	151.800	15	75.900	8	40.480	15	75.900	14	70.840	18	91.080	100	506.000
AI Shortraker/Rougheye Rockfish	68.000	22	14.960	18	12.240	7	4.760	18	12.240	17	11.560	18	12.240	100	68.000
BS Other Rockfish	27.000	25	6.750	21	5.670	7	1.890	12	3.240	13	3.510	22	5.940	100	27.000
AI Other Rockfish	51.000	23	11.730	17	8.670	7	3.570	18	9.180	17	8.670	18	9.180	100	51.000
Other Species	1,988.000	18	304.164	20	337.960	10	168.980	16	270.368	16	270.368	20	337.960	100	1,689.800
PSQ Reserve Category	Amount	%	Amt	%	Amt	%	Amt	%	Amt	%	Amt	%	Amt	%	Amount
Zone 1 Red King Crab	7,275.000	29	2,110.000	23	1,673.000	8	582.000	7	509.000	7	509.000	26	1,892.000	100	7,275.000
Zone 1 Bairdi Tanner Crab	54,750.000	26	14,235.000	24	13,140.000	8	4,380.000	8	4,380.000	8	4,380.000	26	14,235.000	100	54,750.000
Zone 2 Bairdi Tanner Crab	155,250.000	23	35,708.000	22	34,155.000	9	13,973.000	12	18,630.000	11	17,078.000	23	35,708.000	100	155,252.000
Opilio Tanner Crab	326,250.000	24	78,300.000	22	71,775.000	9	29,363.000	11	35,888.000	10	32,625.000	24	78,300.000	100	326,251.000
Pacific Halibut	343.000	22	75.460	22	75.460	9	30.870	12	41.160	12	41.160	23	78.890	100	343.000
Chinook Salmon	3,075.000	15	461.000	21	646.000	4	123.000	23	707.000	23	707.000	14	431.000	100	3,075.000
Non-Chinook Salmon	3,150.000	15	473.000	21	662.000	5	158.000	23	725.000	22	693.000	14	441.000	100	3,152.000

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Prepared on 02/06/01 04:11 PM
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