

Initial Review Draft

Regulatory Impact Review/Environmental Assessment/Initial Regulatory Flexibility Analysis For

Proposed Amendment 93 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Island Management Area

Modifying Amendment 80 Cooperative Formation Criteria



November 20, 2009

NMFS, Alaska Region
POB 21668
Juneau, AK 99802
(907) 586-7228

NEXT PAGE

TABLE OF CONTENTS

Executive Summary	vii
1 INTRODUCTION	1
2 REGULATORY IMPACT REVIEW	2
2.1 Purpose and Need	2
2.2 Proposed Alternatives	4
2.3 Background	7
2.3.1 Development of Amendment 80	7
2.3.2 Amendment 80 in the Context of GRS and Amendment 85	11
2.3.3 Modification of Cooperative Formation Standards relative to the Previous Actions and MSA LAPP Provisions	12
2.3.4 Current composition of the Amendment 80 sector	13
2.3.5 Cooperative Formation Standards Considered During the Development of the Amendment 80 Program.	18
2.3.6 Cooperative formation standards in other cooperative programs	23
2.3.7 Fishing Practices of the Amendment 80 Sector: 2003-2008	26
2.3.8 Cooperative Formation Standards and Decisions to Join a Cooperative..	46
2.4 Potential Effects of the Alternatives	59
2.4.1 Alternative 1: Status quo	60
2.4.2 Alternative 2: Modifying the number of owners required to form a cooperative	61
2.4.3 Alternative 3 Modifying the number of QS permits required to form a cooperative	62
2.4.4 Alternative 4 Modifying the number of QS holders and QS permits required to form a cooperative	63
2.4.5 Alternative 5 Establishing a minimum QS holding threshold for cooperative formation	63
2.4.6 Alternative 6 Require a cooperative to accept any otherwise qualified member subject to the same terms and conditions applicable to other members.	64
2.4.7 GRS Suboption Modifying GRS to allow calculation based on retention among cooperatives	67
2.5 Summary of potential effects of the Alternatives	69
2.5.1 Effects on Cooperative Negotiating Leverage within the Amendment 80 sector	69
2.5.2 Effects of the Alternatives on Fishing Patterns in the Amendment 80 sector	71
2.5.3 Potential Effects on Net Benefits to the Nation	72
2.5.4 Potential Effects on Management, Enforcement, and Safety	72
2.5.5 Potential Effects on Fishing Crew and Communities	73
3 ENVIRONMENTAL ASSESSMENT	73
3.1 Purpose and Need	73
3.2 Description of Alternatives	74
3.3 Probable Environmental Impacts	75
3.3.1 Physical and Biological Impacts	75

3.3.2	Economic and Socioeconomic Impacts	77
3.3.3	Cumulative Impacts	77
3.3.4	Past and Present Actions	78
3.3.5	Reasonably Foreseeable Future Actions	78
3.3.6	Summary of Cumulative Effects	79
4	INITIAL REGULATORY FLEXIBILITY ANALYSIS	79
4.1	Introduction	79
4.2	IRFA requirements	80
4.3	Definition of a small entity	81
4.4	Reason for considering the proposed action	82
4.5	Objectives of proposed action and its legal basis	83
4.6	Number and description of directed regulated small entities	83
4.7	Recordkeeping and reporting requirements	84
4.8	Relevant Federal rules that may duplicate, overlap, or conflict with the proposed action	84
4.9	Description of significant alternatives to the proposed action	84
5	CONSISTENCY WITH APPLICABLE LAW AND POLICY	85
5.1	National Standards	85
5.2	Section 303(a)(9) – Fisheries Impact Statement	87
6	REFERENCES	87
7	LIST OF PREPARES AND CONTRIBUTORS	88
8	LIST OF PERSONS CONSULTED	88

LIST OF TABLES

Table 1:	Alternatives and Suboptions for Cooperative Formation	7
Table 2:	Owners of Amendment 80 vessels, QS permits, LLP licenses and QS holdings derived from Amendment 80 vessels, and participation in 2010 cooperative and limited access fishery	16
Table 3:	Cooperative Formation Standards in North Pacific LAPPs	24
Table 4:	Total Groundfish Catch by All Vessels and All Amendment 80 Vessels from 2003-2008	29
Table 5:	PSC Use by Amendment 80 vessels: 2003-2008	33
Table 6:	Percent of Amendment 80 Allocations Caught or Used by Amendment 80 Sector (2008 only)	33
Table 7:	Amendment 80 Allocations to the cooperative and limited access fishery (2008 only)	35
Table 8:	Total Groundfish Catch of Select Species by All Vessels and All Amendment 80 Vessels in the Western GOA (Area 610) from 2003-2008	37
Table 9:	Total Groundfish Catch of select species by All Vessels and All Amendment 80 Vessels from 2003-2008 Central GOA (Area 620 & 630)	38
Table 10:	Total Halibut PSC use by All Vessels and All Amendment 80 Vessels from 2003-2008 Central & Western GOA (Areas 610, 620 & 630)	39
Table 11:	GOA Sideboard limits under Central GOA Rockfish Program and Amendment 80 Program	43

Table 12. Number of Amendment 80 vessels eligible to directed flatfish in the GOA that did directed fish for flatfish 2003-2008	46
Table 13: Pass Through vs. Integrated Cooperative	48
Table 14: Catch, and groundfish retention rate by Amendment 80 vessels by retention percentage (2008).....	51
Table 15: Catch, and groundfish retention rate by Amendment 80 fishery sectors (2008)	51
Table 16: Catch, and groundfish retention rate by Amendment 80 vessel size class (2008)	51
Table 17: Catch, and groundfish retention rate by species by Amendment 80 vessel size class (2008)	52
Table 18: Alternatives and Suboptions for Cooperative Formation	75

Definitions for the Amendment 93 Analysis

The following list provides definitions for a list of selected words or phrases used in the analysis. Other terms are defined in the text of the analysis:

- **Amendment 80 cooperative (cooperative)** means a group of Amendment 80 QS holders who have chosen to fish cooperatively for Amendment 80 species under the requirements of the Amendment 80 Program and who have applied for and received a CQ permit issued by NMFS to catch a quantity of fish expressed as a portion of the ITAC and crab and halibut PSC limits. Under existing regulations, an Amendment 80 cooperative may only form if comprised of:
 - (1) At least three Amendment 80 QS holders each of whom may not have a ten percent or greater direct or indirect ownership interest in any of the other Amendment 80 QS holders;
 - (2) Any combination of at least nine Amendment 80 QS permits which would include Amendment 80 LLP/QS licenses;
 - (3) The applicants apply as a cooperative on a timely and complete application which is due to NMFS not later than November 1 of the year prior to fishing.
- **Amendment 80 cooperative quota (CQ)** means the allocation of an exclusive harvest privilege of Amendment 80 species and the allocation of an exclusive use privilege for crab or halibut PSC in the BSAI to an Amendment 80 cooperative.
- **Amendment 80 fishery** means an Amendment 80 cooperative or the Amendment 80 limited access fishery.
- **Amendment 80 Initial TAC (ITAC)** means the portion of the TAC of Amendment 80 species allocated for use by the Amendment 80 sector and the BSAI trawl limited access sector. The ITAC is the amount remaining of an Amendment 80 species TAC after allocation to support the Western Alaska Community Development Quota Program (CDQ) and to support incidental catch allowances for the non-Amendment 80 sector.
- **Amendment 80 limited access fishery (limited access fishery)** means the fishery conducted in the BSAI by persons with Amendment 80 QS permits, Amendment 80 LLP licenses, or Amendment 80 vessels assigned to the Amendment 80 limited access fishery. All QS permits, LLP licenses, and vessels not assigned to a cooperative are assigned to the limited access fishery.
- **Amendment 80 LLP license** means:
 - (1) Any LLP license that is endorsed for groundfish in the Bering Sea subarea or Aleutian Islands subarea with a catcher/processor designation and that designates an Amendment 80 vessel in an approved application for Amendment 80 QS;
 - (2) Any LLP license that designates an Amendment 80 vessel at any time after the effective date of the Amendment 80 Program; and
 - (3) Any Amendment 80 LLP/QS license.
- **Amendment 80 LLP/QS license** means an LLP license originally assigned to an Amendment 80 vessel with an Amendment 80 QS permit assigned to that LLP

license. NMFS assigns QS to an Amendment 80 LLP license in cases where a vessel has been lost or is permanently ineligible to reenter a fishery and the QS holder transfers the QS permit from the lost or ineligible vessel to the LLP license.

- **Amendment 80 Program** means the Program implemented to manage Amendment 80 species fisheries by limiting participation in these fisheries to eligible participants.
- **Amendment 80 QS holder (QS holder/vessel owner)** means a person who holds QS issued by NMFS and is eligible to assign vessels, QS permits, and LLP licenses to a cooperative of the limited access fishery on an annual basis.
- **Amendment 80 QS permit (QS permit)** means a permit issued by NMFS that designates the amount of Amendment 80 QS units derived from the Amendment 80 legal landings assigned to an Amendment 80 vessel for each Amendment 80 species in a management area.
- **Amendment 80 species** means the following species in the following regulatory areas: BSAI Atka mackerel; Aleutian Islands Pacific ocean perch (AI POP); BSAI flathead sole; BSAI Pacific cod; BSAI rock sole; and BSAI yellowfin sole
- **Amendment 80 sector** means those Amendment 80 QS holders who own Amendment 80 vessels and hold Amendment 80 LLP licenses, or those persons who hold Amendment 80 LLP/QS licenses.
- **Amendment 80 vessel (vessel)** means a non-AFA trawl catcher/processor vessel that is eligible to participate in the Amendment 80 Program. This includes only a vessel that:
 - (1) Is not listed as an AFA trawl catcher/processor under sections 208(e)(1) through (20) of the American Fisheries Act;
 - (2) Has been used to harvest with trawl gear and process not less than 150 mt of Atka mackerel, flathead sole, Pacific cod, Pacific ocean perch, rock sole, turbot, or yellowfin sole in the aggregate in the BSAI during the period from January 1, 1997, through December 31, 2002; or
 - (3) Any vessel that replaces a vessel designated under paragraphs (1) and (2) provided that vessel is also a non-AFA trawl catcher/processor.
- **American Fisheries Act (AFA) catcher vessel** means a catcher vessel permitted to harvest Bering Sea pollock under 50 CFR 679.4(1)(3).
- **AFA catcher/processor** means a catcher processor permitted to harvest Bering Sea pollock under 50 CFR 679.4(1)(2).
- **AFA LLP** means a permit initially issued by NMFS to qualified AFA catcher vessels and processor vessels. An AFA vessel must be named on a valid LLP permit authorizing that vessel to engage in trawling for pollock in the Bering Sea subarea. AFA LLPs can be transferred to another AFA vessel, however, may not be used on a non-AFA CV or a non-AFA CP (§679.4(k)(9)(iii)(3)).
- **Bering Sea/Aleutian Islands Management Area (BSAI)**.
- **BSAI trawl limited access fishery** means the fishery conducted by non-Amendment 80 sector trawl vessels for the six Amendment 80 species. NMFS allocates a portion of the ITAC of several of the Amendment 80 species for harvest by these vessels.
- **Groundfish Retention Standard (GRS)** means a requirement that non-AFA trawl catcher/processors, including all Amendment 80 vessels must retain a minimum amount of groundfish products relative to the total groundfish caught. The GRS is

phased in over a several year period. The GRS was established under Amendment 79 to the BSAI FMP and subsequently modified by the Amendment 80 Program.

- **Gulf of Alaska (GOA)**.
- **LLP license** is a permit issued under the License Limitation Program. It is held by a person, not by a vessel. A license may be held that is not assigned to a vessel, but before the license can be used in a fishery, the vessel upon which the license will be fished must be named. Once a license is assigned to a vessel of appropriate size to engage in directed fishing in accordance with the endorsements of the LLP, the license holder is authorized to deploy that vessel, and the license must be physically on board the vessel when it is engaged in activities authorized by the license.
- **Prohibited Species Catch (PSC)** means those species that are not allowed to be retained while directed fishing for groundfish. PSC species include Bristol Bay red king crab, *Chionoecetes opilio* (*C. opilio*, or snow crab), *C. bairdi* (Tanner crab), halibut, herring and salmon (Chinook and non-Chinook salmon). NMFS allocates CQ to cooperatives for Bristol Bay red king crab, snow crab, Tanner crab, and halibut in the BSAI.

EXECUTIVE SUMMARY

This Regulatory Impact Review (RIR) was prepared to meet the requirements of Presidential Executive Order 12866 for an evaluation of the benefits and costs of a proposed Federal regulatory action. The proposed action is Amendment 93 to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Island Management Area (BSAI FMP). Analysts have also drafted an environmental assessment (EA) and initial regulatory flexibility analysis (IRFA) to comply with the National Environmental Policy Act and the Regulatory Flexibility Act, respectively. The proposed action would amend the BSAI FMP and Federal regulations related to the Amendment 80 Program.

The Amendment 80 Program is a limited access privilege program (LAPP) that allocates a quota share (QS) permit to a person, based on the catch history of six Amendment 80 species (Atka mackerel, Aleutian Islands Pacific ocean perch, flathead sole, Pacific cod, rock sole, and yellowfin sole) in the Bering Sea/Aleutian Islands Management Area (BSAI), from 1998 through 2004, for each of 28 originally qualifying non-AFA trawl catcher processors. In order to receive an allocation of QS, a person must own the catch history of an original qualifying non-AFA trawl catcher/processor that met specific criteria designated by Congress under the Capacity Reduction Program (CRP) in December 2004. The non-AFA trawl/catcher processors identified in the CRP comprise the Amendment 80 vessels. Each of the 28 originally qualifying vessels may be assigned a QS permit, if that vessel owner applies to receive QS. In cases where an original qualifying vessel has suffered a total or constructive loss, or is no longer eligible to receive a fishery endorsement (i.e., has been removed through a vessel buyback program, or has been reflagged as a foreign vessel) the QS permit may be assigned to a replacement vessel, or to the License Limitation Program (LLP) license initially assigned to that original qualifying vessel. Persons not applying for QS based on the catch history of original qualifying vessels, may use those vessels to continue to participate in fishing the Gulf of Alaska (GOA), but are prohibited from using those vessels as trawl vessels in the BSAI.

Once issued, QS permits, and the Amendment 80 vessels or LLP licenses associated with those QS permits, may be assigned to either an Amendment 80 cooperative, or the Amendment 80 limited access fishery. A QS permit may not be subdivided and QS allocations of specific QS species may not be transferred or otherwise reassigned. In order to form a cooperative, a minimum of three unique QS holders, not affiliated through control or direct or indirect common ownership of greater than 10 percent, and a minimum of nine QS permits of the 28 QS permits that are eligible to be issued under the Amendment 80 Program, must be assigned to a cooperative.

NMFS assigns an exclusive harvest privilege for a specific portion of the total allowable catch (TAC) assigned to the Amendment 80 program for the six defined Amendment 80 species, as well as exclusive use of a portion of the BSAI halibut, Bristol Bay red king crab, snow crab, and Tanner crab prohibited species catch (PSC), based on the aggregate QS held by all of the QS permits assigned to a cooperative. The annual exclusive harvest privilege assigned to a cooperative is called cooperative quota (CQ). Persons, who do not participate in a cooperative, are assigned to the limited access fishery and compete for the TAC and PSC remaining after allocation to cooperatives. The potential benefits that vessel owners and operators may derive from participating in a

cooperative (e.g., ending the “race for fish” thereby providing greater incentive to coordinate harvesting strategies and fish in conditions that are likely to be more economically profitable, less dangerous, and better able to respond to changing conditions on the fishing grounds), may not be realized by participants in the limited access fishery who do not receive an exclusive harvest allocation. Participants in the limited access fishery may have little incentive to coordinate harvest strategies if they perceive a benefit by competing with other participants in a race for fish.

A minimum groundfish retention standard (GRS) applies to all Amendment 80 vessels fishing in the BSAI. The GRS was recommended by the North Pacific Fishery Management Council (Council) as Amendment 79 to the BSAI FMP in June 2003, published as a final rule in April 2007, and became effective in 2008. As originally recommended by the Council in April 2003, the GRS applied only to non-AFA trawl catcher/processors equal to or greater than 125 feet length overall (LOA). All Amendment 80 vessels over 125 feet would have been required to comply with the GRS recommended by the Council under Amendment 79. Under the GRS, Amendment 80 vessels are required to retain a minimum amount of all groundfish harvested. The percentage of catch that must be retained was 65 percent in 2008, increasing to 75 percent in 2009, 80 percent in 2010, and 85 percent in 2011 and all future years.

Amendment 80 modified the GRS as recommended under Amendment 79 in two critical ways. First, the GRS was extended to apply to all non-AFA trawl catcher/processors operating in the BSAI, without an exemption for vessels under 125 feet LOA. Therefore, all Amendment 80 vessels, regardless of size, are required to comply with the GRS. Second, Amendment 80 modified the method of calculating the total retention of catch that applies to cooperatives. Under the GRS as modified by Amendment 80, each vessel participating in the limited access fishery must ensure that it meets the GRS requirements, based on the amount of catch retained by that vessel. Vessels participating in a cooperative can aggregate the total catch and total retained catch by all vessels in the cooperative. Therefore, vessels with poorer retention rates may have an incentive to join a cooperative with other vessels that have a better retention rate and are able to offset the lower retention rate of those vessels. Vessels participating in the limited access fishery may face increasing difficulty meeting the GRS if they cannot coordinate with other vessels. As the GRS increases, individual vessels with lower retention rates may have greater difficulty meeting the GRS, if they cannot coordinate with other vessels in a cooperative.

The proposed action would modify the requirements that Amendment 80 QS holders would need to meet in order to form a harvesting cooperative and receive an exclusive allocation of Amendment 80 species and associated PSC that are incidentally taken during the prosecution of BSAI groundfish fisheries. This action would not modify the specific species that are allocated, the amount of the TAC allocated to the Amendment 80 Program, the specific percentage of catch that must be retained under the GRS, or how the GRS is calculated. Since the implementation of the Amendment 80 Program in 2008, some Amendment 80 sector participants have expressed concern that the current requirements to form a cooperative could impede formation of a cooperative, so as to receive an exclusive allocation of Amendment 80 species. This could disadvantage participants, and require them to continue to “race for fish”, instead of receiving the benefits of cooperative relationships.

In February 2008, the Council requested a discussion and review of the criteria for establishing cooperatives under Amendment 80. NMFS and Council staff prepared a discussion paper that was presented to the Advisory Panel (AP) and Council in June 2008, to provide a qualitative review of the goals of the existing cooperative formation standards, current conditions in the fishery, and the implications of modifying cooperative formation criteria. The discussion paper reviewed criteria for the number of unique entities, the number of QS permits, and amount of assigned QS required for cooperative formation. The paper also examined the consequences of modifying one or more of the criteria, including interactive effects of those changes. The discussion paper noted that most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program.

In February 2009, the Council conducted an initial review of an action to modify Amendment 80 cooperative formation and released the amendment package for public review, which included the first five proposed alternatives and the GRS suboption described below. The Council asked staff to include the following information in the analysis before releasing for public review: expand the discussion of the purpose and need statement from Amendment 79 and Amendment 80; include 2008 catch data from the Amendment 80 cooperative separate from Amendment 80 limit access fishery; expand the discussion of GRS implementation and performance including GRS retention by vessel size; and expand discussion of cooperative requirements under other LAPPs. NMFS staff modified the analysis and the Council scheduled final action on Amendment 93 for April 2009. While the AP considered Amendment 93, the Council did not take final action in April 2009, due to time constraints.

In October 2009, NMFS requested that the Council recommend an additional alternative to the Amendment 93 analysis after reviewing the Council's purpose and need statement and the suite of alternatives being considered. NMFS proposed that the Council include an alternative (Alternative 6) that requires a cooperative to accept any person otherwise eligible to participate in a cooperative subject to the same terms and conditions that apply to all other members of the cooperative. The Council concurred with NMFS' recommendation and included an additional alternative into the Amendment 93 analysis in October 2009. The Council also recommended that the Amendment 93 analysis be revised and be made available for a subsequent initial review prior to final action to allow additional review of the potential impact of this new alternative.

Purpose and Need and Alternatives

In June 2008, the Council adopted a draft purpose and need statement and recommended alternatives that would modify the existing cooperative formation standards for the Amendment 80 sector. With the adoption of the additional alternative in October 2009, minor modification to the draft purpose and need statement are required to reflect this new alternative. Staff suggestions to incorporate this new alternative are shown in ~~strikeout~~ and bold capitalized text below. **The Council should review these suggested modifications and adopt them, or similar text, as appropriate:**

Purpose and Need

Most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program. However, some participants have expressed concern that over the long term, cooperative formation standards may disadvantage them, and they may be constrained from establishing cooperative relationships, receiving an exclusive annual harvest allocation, and ending the “race for fish.” Smaller vessel owners with limited QS are likely to have weakened negotiating leverage as the groundfish retention standard (GRS) increases if they cannot be competitive in the limited access fishery and options in the Gulf of Alaska (GOA) are not viable. Participants of any size will find it difficult to receive the benefits of cooperative management if they cannot reach agreement on negotiated terms and the limited access fishery is an unattractive outside option, or a cooperative is able to derive some benefit from forcing an entity into the limited access fishery.

Relaxing cooperative formation standards either by reducing the number of quota share (QS) permits that must be assigned, or the number of owners required, **OR BY REQUIRING THAT ANY OTHERWISE ELIGIBLE MEMBER BE ACCEPTED BY A COOPERATIVE SUBJECT TO THE SAME TERMS AND CONDITIONS AS OTHER MEMBERS** could: (1) provide additional opportunities to QS holders to form cooperatives, because more relationships are possible; (2) diminish the negotiating leverage of vessel owners who may be necessary to meet the threshold requirements under more stringent cooperative formation standards; (3) reduce the potential risk of any one company being unable to negotiate settlement and be able to fish only in the limited access fishery; and (4) reduce the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative.

The alternatives recommended by the Council and addressed in this analysis are listed below. The new alternative recommended by the Council in October 2009 is highlighted in bold:

- Alternative 1: Status quo. A minimum of three unique QS holders holding at least nine QS permits are required to form a cooperative.
- Alternative 2: Reduce the number of unique QS holders required to form a cooperative from three to two or one unique QS holder.
- Alternative 3: Reduce the number of QS permits required to form a cooperative from the existing 9 permits to some lower range (e.g., three permits to the existing 9 permits).
- Alternative 4: Reduce both the number of unique QS holders and the number of QS permits required to form a cooperative (combination of Alternatives 2 and 3 above).
- Alternative 5: Allow a cooperative to form with a minimum of three unique QS holders holding at least nine QS permits (status quo), or a single or collective group of entities that represent 20 percent, 25 percent or 30 percent of the sector QS.
- **Alternative 6: Require that a cooperative accept all members of a cooperative who are otherwise eligible to join a cooperative subject to the same terms and conditions as all other members.**

- GRS Suboption (Applicable to all Alternatives): The GRS shall be applied in aggregate, to all cooperatives if this calculation meets or exceeds the GRS requirement.

Under Alternative 3, the analysis has suboptions for 3, 6, 7, and 8 QS permits.

Under Alternative 4, the suboptions include a range of combinations from the most restrictive cooperative formation standard, other than the status quo alternative, (i.e., two QS holders and 6 QS permits), and the least restrictive (i.e., 1 QS holder and 3 QS permits).

Under Alternative 5, it is possible to form a cooperative either by meeting the existing requirements (i.e., three unique QS holders and nine QS permits) or by a single person, or group of people, meeting a minimum level of QS. If a cooperative is formed by a person or persons meeting the minimum QS holding requirement, other participants could choose to form a cooperative under the existing cooperative formation standards. Under the suboption where 30 percent of the QS must be assigned to a cooperative in order for it to form, no more than one person could qualify to form a cooperative as a single company under that suboption. The existing limitations that no person may hold more than 30 percent of the Amendment 80 QS pool unless that person held the catch history of qualifying vessels prior to final action by the Council in June 2006 (50 CFR 679.92(a)), and the prohibition on the severability of QS from the permit to which it is assigned (50 CFR 679.90(a)), effectively limits all but one company from being able to hold 30 percent or more of the QS pool. However, it would still be possible for more than one company to combine their QS holdings in order to meet the minimum QS holding standards of 30 percent, 25 percent, or 20 percent of the Amendment 80 QS pool.

Under Alternative 6, an otherwise eligible person could join any cooperative that has formed under the existing cooperative formation standards (i.e., three unique QS holders and nine QS permits) subject to the same terms and conditions that are applicable to all other cooperative members. This alternative would not directly modify the cooperative formation standards but would allow persons to establish cooperative relationships if the limited access fishery option was not acceptable to that person and they are willing to meet the terms and conditions applicable to all other members of the cooperative.

The GRS suboption could be applied to any of the alternatives. It would not specifically modify the criteria to form a cooperative, but would modify the way in which the GRS is applied to cooperatives, once they have formed. Presumably, allowing the GRS to be aggregated across cooperatives could reduce some of the potentially adverse consequences for vessel operators that may be disadvantaged if the cooperative standards are modified. During an initial review in February 2009, the Council recommended incorporating an aggregated GRS as a suboption. The Council noted that aggregating the GRS among cooperatives as a stand alone alternative did not appear to conform to the purpose and need statement adopted by the Council. The Council's purpose and need statement specifically addressed cooperative formation standards, not the method used to compute the GRS. Because this suboption does not directly address cooperative formation standards, it is not analyzed directly with the other alternatives or suboptions in this analysis. The analysis does contain a general discussion of the effects and management and enforcement of this suboption in Section 2 of this analysis.

The Council noted that if the GRS option under Alternative 1 (status quo) was selected, some modification to the purpose and need statement would be required. Should the Council choose Alternative 1 with the GRS suboption, a draft purpose and need statement is contained in the discussion of the Suboption in Section 2.4.6 of this document. The Council should review and modify that draft purpose and need statement, if applicable.

The Amendment 80 fleet is comprised of a maximum of 28 eligible QS permits and vessels. Therefore, NMFS can determine the maximum number of cooperatives that could form under Alternatives 1 through 5 as described in Table E-1. If an alternative only modifies one specific cooperative formation standard (e.g., Alternative 2 modifies the number of unique owners required, but not the number of QS permits), the status quo requirement is applied to all other cooperative formation standards.

Table E-1: Alternatives, Suboptions, and Implications for Cooperative Formation					
Alternative	Suboption	Minimum number of unique QS holders required	Minimum number of QS permits required	Maximum number of cooperatives that could form if all QS holders apply	Maximum number of cooperatives that could form with current QS holders
Alternative 1: Status quo	N/A	3	9	3	3
Alternative 2: Fewer unique QS holders	Suboption 1: 2 unique QS holders	2	9	3	3
	Suboption 2: 1 unique owner	1	9	3	3
Alternative 3: Fewer QS permits	Suboption 1: 8 QS permits	3	8	3	3
	Suboption 2: 7 QS permits	3	7	4	4
	Suboption 1: 6 QS permits	3	6	4	4
	Suboption 2: 3 QS permits	3	3	9	9
Alternative 4: Fewer unique QS holders and Fewer QS permits	Suboption 1: 2 QS holders, 6 QS permits	2	6	4	4
	Suboption 2: 2 QS owners, 3 QS permits	2	3	9	9
	Suboption 3: 1 QS holder, 6 QS permits	1	6	4	4
	Suboption 4: 1 QS holder, 3 QS permits	1	3	9	9
Alternative 5: Status quo or Minimum QS holding to form cooperative	Suboption 1: 30 % of QS pool	3 or 1	N/A	3	3 or 3
	Suboption 2: 25 % of QS pool	3 or 1	N/A	4	3 or 4
	Suboption 3: 20 % of QS pool	3 or 1	N/A	5	3 or 5
Alternative 6: Accept all members	N/A	3	9	3	3

Table E-2 describes the current ownership structure within the Amendment 80 sector, as well as the amount of QS that each unique QS holder is assigned. As part of this analysis, vessel owners have provided detailed information concerning the ownership status of the various vessels and QS permits. Table E-2 describes the specific QS holders that could form a cooperative under one or more of the alternatives and suboptions described in Table E-1 independent of any other QS holder. As noted in Table E-2, not all of the potentially eligible recipients of QS have chosen to apply for QS. One potentially eligible QS permit could be assigned based on the historic catch history of the *F/V Golden Fleece*. Additional discussion of possible reasons why this QS holder may have chosen not to participate in the Amendment 80 Program, is provided in Section 2 of the analysis. Collectively, 99.9 percent of the total available Amendment 80 QS pool has been allocated to eligible participants.

Table E-2 also denotes the original qualifying vessels that are no longer active in the Amendment 80 fleet in italics due to a loss (i.e., *F/V Alaska Ranger*, *F/V Arctic Sole*, and *F/V Prosperity*), or because those vessels have been reflagged under foreign ownership and are no longer eligible to reenter U.S. fisheries (i.e., *F/V Bering Enterprise*).

Table E-2 also describes those vessels that are considered to be smaller vessels for purposes of this analysis. There is not a clear distinction between large and small vessels in the Amendment 80 fleet. The final Environmental Assessment/ Regulatory Impact Review/Final Regulatory Flexibility Analysis (EA/RIR/FRFA) prepared for Amendment 80 (Amendment 80 Analysis) indicated that vessels of smaller sizes had a lower retention rate than larger vessels. For purposes of this analysis, smaller vessels refers to vessels less than 144 feet LOA because the available data suggests that those vessels may have more difficulty achieving GRS requirements relative to larger vessels. Based on the Amendment 80 analysis, vessels less than 144 feet LOA retained 63 percent of their total catch during 1995 through 2003. This is slightly less than the GRS rate in 2008 of 65 percent. While the retention rates by vessels under 144 feet LOA during this time frame may not reflect current retention rates, particularly for vessels targeting specific species with higher retention rates, or under cooperative management which reduces the incentive to race for fish. The 144 foot LOA limit provides some indication of the relative size of vessels that may need to make substantial adjustments to accommodate increasing retention requirements, and provides a useful focal point for this analysis.

Table E-3 shows the assignment of vessels and QS permits associated with LLP licenses of various QS holders and their vessels in the 2008-2010 Amendment 80 fisheries.

Table E-2: Amendment 80 Vessels, Owners, QS Holdings, and their Ability to Independently form Cooperatives under the Proposed Alternatives and Suboptions			
Owner ₁	Amendment 80 Vessel(s)/LLPs with length overall (LOA) ₂	Percentage of aggregate QS pool held	Alternatives and Suboptions under which a cooperative could be formed independent of other QS holders
Fishing Company of Alaska (FCA), Inc. (Management entity for owner)	Alaska Juris (238 ft) <i>Alaska Ranger</i> ₃ (203 ft -QS assigned to LLP license derived from vessel) Alaska Spirit (221 ft) Alaska Victory (227 ft) Alaska Voyager (228 ft) Alaska Warrior (215 ft)	35.9	Alternative 4: Suboptions 3 & 4 Alternative 5: All Suboptions
U.S. Seafoods, Inc. (Management entity for owners)	Ocean Alaska ₄ (124 ft) Alliance (124 ft) Legacy (132 ft) Prosperity (138 ft - QS assigned to LLP license derived from vessel) Seafreeze Alaska (296 ft)	9.6	Alternative 4: Suboption 4
Iquiqui U.S., LLC	Arica (186 ft) Cape Horn (158 ft) Rebecca Irene (140 ft) Tremont (131 ft) Unimak (185 ft)	16.9	Alternative 4: Suboption 4
O'Hara Corporation	<i>Bering Enterprise</i> ₅ (183 ft - QS assigned to LLP derived from vessel) Constellation (150 ft) Defender (124 ft) Enterprise (132 ft) Harvester Enterprise (188 ft)	13.1	Alternative 4: Suboption 4
Fishermen's Finest (Management Entity for owners)	American No. 1 (160 ft) U.S. Intrepid (185 ft)	8.1	None
Cascade Fishing, Inc. (Management Entity for owners)	Seafisher (230 ft)	8.1	None
Ocean Peace	Ocean Peace (219 ft)	6.0	None
Jubilee Fisheries	Vaerdal (124 ft)	1.9	None
Arctic Sole Seafoods	Ocean Cape (122 ft - QS assigned to LLP derived from originally qualifying vessel <i>Arctic Rose</i>)	0.3	None
Golden Fleece	Golden Fleece (124 ft)	0.1	N/A -- QS permit has not been issued.

1 Ownership data are derived from multiple sources including information provided on Amendment 80 QS applications, Restricted Access Management (RAM) LLP database (<http://www.fakr.noaa.gov/ram/llp.htm#list>), Groundfish Forum (<http://www.groundfishforum.org>), and personal communications with Dave Benson (Trident), Bill Orr (Iquiqui U.S., LLC), Susan Robinson (Fishermen's Finest), Mike Szymanski (FCA), and Dave Wood (U.S.

Seafood). Most owners designate subsidiary corporations to own the vessels. In turn, those subsidiary corporations are wholly owned by the owner.

2 LOA data derived from RAM LLP license database (see URL above). These data indicate the maximum LOA of the vessel that may use the LLP originally issued for that vessel. Vessel lengths listed in the LLP database may differ from vessel lengths listed in USCG Vessel Documentation files.

3 Vessels that are no longer active in the Amendment 80 sector due to an actual total loss, constructive total loss or permanent ineligibility to receive a U.S. Fishery Endorsement under 46 USC 12108 are noted in italics.

4 Vessels considered to be smaller vessels for purposes of this analysis are noted in bold text.

5 The *Bering Enterprise* LLP license is currently held by Trident Seafoods, Inc., but will be assigned to O'Hara Corporation in 2010 (Dave Benson, Pers. Comm.). Because this transaction is likely to occur, the QS assigned to the *Bering Enterprise* LLP license is considered to be assigned to the O'Hara Corporation for purposes of this analysis.

Table E-3: Participation in 2008, 2009, and 2010 Amendment 80 fisheries

Year and Fishery	Vessel Owner	Vessels/QS permits	Percent of Amendment 80 QS Pool
2008 Amendment 80 limited access fishery participants	FCA	Alaska Juris <i>Alaska Ranger</i> ₁ Alaska Spirit Alaska Victory Alaska Voyager Alaska Warrior	36.5 %
	U.S. Seafoods	Ocean Alaska	
2009 Amendment 80 limited access fishery participants	Arctic Sole Seafoods, Inc.	Ocean Cape	36.7 %
	FCA	Alaska Juris <i>Alaska Ranger</i> Alaska Spirit Alaska Victory Alaska Voyager Alaska Warrior	
	U.S. Seafoods	Ocean Alaska	
2010 Amendment 80 limited access fishery participants	Arctic Sole Seafoods, Inc.	Ocean Cape	37.0 %
	FCA	Alaska Juris <i>Alaska Ranger</i> Alaska Spirit Alaska Victory Alaska Voyager Alaska Warrior	
	U.S. Seafoods	Ocean Alaska	
	Trident Seafoods	<i>Bering Enterprise</i>	
2008 and 2009 Amendment 80 cooperative participants	U.S. Seafoods	Alliance Legacy <i>Prosperity</i> Seafreeze Alaska	63.5 % (2008)
	Iquiqui U.S., LLC	Arica Cape Horn Rebecca Irene Tremont Unimak	
	O'Hara Corporation	Constellation Defender Enterprise	63.3 % (2009)
	Fishermen's Finest	American No. 1 U.S. Intrepid	
	Cascade Fishing, Inc.	Seafisher	
	Ocean Peace	Ocean Peace	

2010 Amendment 80 cooperative participants	U.S. Seafoods	Alliance Legacy <i>Prosperity</i> Seafreeze Alaska	63.0 % (2010)
	Iquiqui U.S., LLC	Arica Cape Horn Rebecca Irene Tremont Unimak	
	O'Hara Corporation	Constellation Defender Enterprise Harvester Enterprise	
	Fishermen's Finest	American No. 1 U.S. Intrepid	
	Cascade Fishing, Inc.	Seafisher	
	Ocean Peace	Ocean Peace	

¹ Vessels that have been lost or that are permanently ineligible to reenter the fishery are noted in italics.

Potential Effects of the Alternatives

1. Effects on Cooperative Negotiating Leverage within the Amendment 80 sector

This analysis notes that under any of the alternatives under consideration, other than Alternative 6, holders of a limited amount of QS, or owners of smaller vessels relative to other vessels in the Amendment 80 fleet, are likely to have weakened negotiating leverage when seeking favorable terms to join a cooperative as the GRS increases, if they cannot be competitive in the limited access fishery and fishing operations in the GOA are not viable. Smaller vessels tend to have less sophisticated processing operations and may not be able to retain as many different species, or retain products as effectively or economically as larger vessels with more expansive processing operations, and greater hold capacity. Larger vessels may face less of an economic imperative to retain only high value species and products and discard lower value species. Participants using vessels of any size will be disadvantaged in any cooperative negotiation if the other members of a prospective cooperative are able to derive some benefit from forcing a participant into the limited access fishery. Excluding a member from cooperative membership could advantage a cooperative, and its members, if cooperative members can participate in both the limited access fishery and a cooperative, and harvest more fish in the limited access fishery than would be derived from their QS if it were assigned to a cooperative.

General benefits to relaxing cooperative formation standards, or requiring a cooperative to accept all members, include: (1) providing additional opportunities to QS holders to form cooperatives because more combinations of unique QS holder and QS permits are possible; (2) reducing the potential risk of any one company being unable to negotiate terms and be forced to fish in the limited access fishery; and (3) reducing the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative if those fishery participants can form a cooperative independent of other QS holders. Generally, easing cooperative formation standards, or requiring a cooperative to accept all members, could

reduce the risk that a QS holder may not be able to reach agreement with other members and would be forced into the limited access fishery.

Some industry participants have suggested that there is a risk to any change to the existing cooperative formation standards, because such a change would diminish the negotiating leverage of QS holders who may be necessary to meet the threshold requirements under more stringent cooperative formation standards. These participants assert that this potentially adverse affect may be more likely for participants owning vessels that are more likely to be constrained by the GRS as the retention rate increases. As an example, under the existing cooperative formation standard, a maximum of three cooperatives can form, and until that threshold is reached any prospective person may have greater negotiating leverage than would exist under alternatives where there are a greater number of potential persons who are available to allow a cooperative to form. Because the cooperative formation standard is relatively high, and a more limited number of QS permits or QS holders are available to meet the third QS holder or ninth QS permit requirements, those participants may be better able to negotiate favorable terms, even if those participants have limited QS holdings or lower retention rates relative to other cooperative members. Under the most extreme example, as indicated in Table E-2 under Alternative 4, suboption 4, several QS holders could form cooperatives independent of other QS holders and the negotiating leverage of QS holders who are unable to form cooperatives independently may be diminished relative to those QS holders able to independently form a cooperative.

However, when compared to the status quo, it is not clear that changing the cooperative standards would necessarily disadvantage participants who are more constrained by the GRS. Table E-2 shows that under the status quo several multiple vessel companies could form a cooperative and exclude all other smaller QS holders, or single vessel owners. The single cooperative that formed in 2008 through 2010 (see Table E-3) contains several more members than are necessary to meet the cooperative formation standards. The extent to which specific alternatives would advantage or disadvantage the negotiating leverage of specific fishery participants is not possible to predict quantitatively. The factors that affect the decision to establish a cooperative include numerous subjective and variable factors. Generally, one would expect that less strict cooperative formation standards might provide greater opportunities for cooperatives to form, in general, and greater opportunities for any specific participant to find arrangements that allow them to participate in a cooperative. It is not clear that relaxing the cooperative formation standards reduces the negotiating leverage a participant may have under the status quo alternative as a necessary unique QS holder or QS permit holder under the status quo alternative. Overall, one would expect that relaxing the cooperative formation standard would provide a greater likelihood that a greater proportion of the TAC assigned to the Amendment 80 sector is harvested under cooperative management.

Requiring that a cooperative accept any otherwise eligible member (Alternative 6) would be expected to reduce incentives for members to attempt to purposefully exclude other members, and could provide an additional opportunity for members who have limited QS holdings to participant in a cooperative if they can otherwise meet the terms and condition of the cooperative contract. The initial contract establishing a cooperative would be likely to require greater clarity and could include additional enforcement and

monitoring provisions to ensure that all potentially eligible members could potentially operate within a cooperative and not adversely affect other cooperative members.

Whether cooperatives actually form under any alternative would likely depend on a wide range of factors. These include pre-existing business relationships, the ability to establish mutually agreeable contracts on data sharing, and civil enforcement of cooperative contract provisions, whether the fishing operations of the companies created unproductive intra-cooperative competition, the viability of the limited access fishery or forgoing fishing in the BSAI for opportunities in the GOA as an outside option for any potential cooperative participant, and the potential risk or advantage of the participation of a specific vessel operation in ensuring that the cooperative overall would be able to meet the GRS.

2. Effects of the Alternatives on Fishing Patterns in the Amendment 80 sector.

This analysis assumes that vessels fishing under a cooperative will realize benefits of LAPP management including a strong incentive to reduce the race for fish which is the objective of the Council's action. Based on a preliminary review of the 2008 and 2009 seasons, and past experience with similar cooperative based management (e.g., AFA cooperatives, Central GOA Rockfish Program, and BSAI Crab Rationalization Cooperatives) participation in a cooperative is likely to allow optimization of harvest rates for product recovery and quality, reduce incentives to operate in adverse weather conditions, and streamline operations to maximum profits. It is possible that participants in the limited access fishery could choose to coordinate their fishing operations and voluntarily form a private contractually-based arrangement to assign a portion of the TAC. However, that voluntary arrangement did not occur during 2008 and 2009 among limited access fishery participants to any great extent, and does not appear to have been established for 2010. There is little to suggest such an arrangement would occur in the future.

Alternatives 2 through 5 would be expected to increase the potential that a greater proportion of the catch is harvested under cooperative management. The analysis assumes that alternatives other than the status quo, with more restrictive cooperative formation standards, would have a lower potential to encourage cooperative management (i.e., Alternative 2, suboption 1) versus those alternatives with less restrictive criteria (i.e., Alternative 4, suboption 4). This analysis does not attempt to predict which specific alternative would maximize the potential for cooperative fishing, given the lack of any quantitative data. Alternative 6 does not modify the cooperative formation standards, but could require parties to more carefully craft the specific terms and conditions of the cooperative contract because any otherwise eligible party could become a potential participant. Experience with other LAPPs where cooperatives must accept all potentially eligible members suggests that cooperative contracts can be constructed with the necessary specificity for all potential participants.

Because vessels operating in a cooperative receive exclusive, and binding, allocations of PSC, this analysis assumes vessels fishing under a cooperative would have a greater incentive than vessels fishing in the limited access fishery to engage in fishing patterns that may reduce PSC use, such as attempting to use halibut excluder devices. In addition, because Alternatives 2 through 5 would be expected to increase the potential for cooperative formation, fewer vessels, and possibly no vessels, would be expected to

participate in the limited access fishery. It is possible, that if cooperative formation standards are relaxed so that cooperatives held by one company are allowed to form, the incentive to reduce bycatch may be somewhat diminished to the extent that a multi-company cooperative is likely to have stringent contractual requirements on its members to minimize their bycatch. However, any cooperative, regardless of the number of its members, is constrained by its allocations of PSC and the potential that a single company cooperative would be less attentive to PSC would be likely to be limited to any marginal difference between the potential constraints imposed by a multi-party contract and the allocation that a cooperative receives.

Generally, fewer vessels participating in the limited access fishery would be expected to reduce the risk that NMFS managers would fail to close the limited access fishery in time, potentially exceeding the TAC. Again, there are no quantitative data available to assess the potential distinctions that may exist among alternatives.

3. Potential Effects on Net Benefits to the Nation

Overall, this action is likely to have a limited effect on net benefits realized by the Nation, *ceteris paribus*. Generally, Alternatives 2 through 6 would be expected to encourage cooperative formation or membership, and therefore may encourage fishing practices that are more likely to result in fully harvesting the TAC assigned to the Amendment 80 sector. To the extent that increased participation in cooperatives allows harvesters additional time to focus on improving product forms, there may be some slight consumer benefits realized by the proposed action, if the proposed alternatives reduce the risk that a specific harvester, or group of harvesters, would otherwise be unable to participate in a cooperative. Any potential consumer benefit assumes that the resulting product enters a domestic market, or in some other way reduces the costs of seafood or improves the quality for U.S. consumers. Conceivably, the proposed alternatives may increase the economic efficiency of that harvester. An additional potential benefit may result if vessels now active in the limited access fishery formed a cooperative and were able to trade CQ with other cooperatives to maximize their harvest. Currently, the Amendment 80 Program does not allow unharvested TAC assigned to the limited access fishery to be reallocated to a cooperative. If multiple cooperatives form, rather than a cooperative and a limited access fishery, CQ could be shared among cooperatives, as necessary, to maximize their harvest.

Generally, cooperative management reduces management costs to NMFS, because cooperatives undertake actions to ensure their allocation is not exceeded, whereas under a limited access fishery, NMFS assumes that management burden and its associated costs. Alternatives 2 through 6 are likely to reduce management costs overall relative to the status quo option to the extent that they result in less participation in the limited access fishery. Again, the lack of any quantitative data makes it difficult to assess the relative differences in net benefits among the alternatives.

4. Potential Effects on Management, Enforcement, and Safety.

As noted under the effects on net benefits, Alternatives 2 through 6 may reduce some management costs. Enforcement of Alternatives 2 through 6 would not be expected to differ from the status quo because NMFS would continue to require the same catch accounting and reporting protocols regardless of how the cooperative formation standards

are changed. The GRS suboption may require some changes in enforcement if this alternative were selected in conjunction with one of the other alternatives. Specifically, under this alternative NMFS would need to monitor the overall retention rates of all cooperatives and determine whether this aggregate retention rate should be applied to all cooperatives. This is not likely to be a substantially greater burden than current GRS monitoring and enforcement currently, assuming that this alternative is applied as described in Section 2 of this analysis.

Safety is not likely to be effected substantially under any of the alternatives under consideration. Specifically, under each of the alternatives, all vessels are required to comply with minimum safety standards under USCG regulations. Although vessels fishing in cooperatives are likely to have reduced incentives to engage in a potentially dangerous race for fish, and easing cooperative formation standards may encourage greater participation in cooperative management, NMFS does not have quantifiable data to conclude that Alternatives 2 through 6 would result in fishing practices that are substantially different than exist under the limited access fishery, or the status quo option for cooperative formation.

5. Potential Effects on Fishing Crew and Communities.

None of the alternatives would be expected to result in changes in effects to fishing communities or crew. The Amendment 80 sector did not appear to consolidate, or otherwise decrease the number of active vessels, or crew, through deliberative action during the first year of the program, and there is no evidence that such patterns have emerged in 2009. Vessel operations, including the number of crew, crew payments, vessel offloading patterns, time in port, supply and fuel purchases or other factors that may affect communities are not known for the period prior to and after implementation of the Amendment 80 Program. In addition, there is no information available to suggest that modifying cooperative formation standard would affect crew or communities in ways that differ from the status quo. NMFS has no information to suggest that payment to crew differ between cooperative or limited access fishery vessels, or that changing cooperative formation standards would result in any such changes.

1 INTRODUCTION

The groundfish fisheries in the Exclusive Economic Zone (EEZ) off Alaska are managed by the National Marine Fisheries Service (NMFS) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Under the authority of the MSA, the North Pacific Fishery Management Council (Council) developed Fishery Management Plans for the groundfish fisheries of the Gulf of Alaska management area (GOA) and Bering Sea and Aleutian Islands management area (BSAI). The proposed action represents Amendment 93 to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Island Management Area (BSAI FMP), as well as changes to Federal regulations.

This Regulatory Impact Review (RIR) evaluates the costs and benefits of proposed amendments that would make changes to the Amendment 80 Program for non-AFA trawl catcher/processors that are operating in the BSAI. The proposed amendments would modify criteria that allow owners of non-AFA trawl catcher/processors, commonly known as Amendment 80 vessels, meeting specific requirements to form a fishery cooperative. Once formed, this fishery cooperative is eligible to receive an exclusive harvest privilege of specific BSAI groundfish, and exclusive access to a specific maximum mortality allowance of BSAI prohibited species catch (PSC). Once cooperatives receive these exclusive allocations or allowances they have greater incentives to fish in ways that improve their profitability, reduce bycatch, and enhance safety. The intent of the proposed action is to facilitate greater participation in cooperative management by Amendment 80 vessel owners. One of the alternatives under consideration (Alternative 1 with GRS suboption) could modify the way in which the groundfish retention standard (GRS) applicable to Amendment 80 vessels is applied to cooperatives.

Presidential Executive Order 12866, the National Environmental Policy Act (NEPA), and the Regulatory Flexibility Act (RFA), mandate that certain issues be examined before a final decision is made. The RIR and environmental assessment required under NEPA are contained in Chapters 2.0 and 3.0, respectively. Chapter 4.0 provides an Initial Regulatory Flexibility Analysis as required under the RFA. Chapter 5.0 includes a description of how the proposed action is consistent with the Magnuson-Stevens Act. References and lists of preparers and persons consulted are provided in Chapters 6.0, 7.0, and 8.0, respectively.

2 REGULATORY IMPACT REVIEW

An RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735; October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

“In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.”

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be “significant.” A “significant regulatory action” is one that is likely to:

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order.

2.1 Purpose and Need

The proposed action would modify the requirements that Amendment 80 QS holders would need to meet in order to form a harvesting cooperative and receive an exclusive allocation of Amendment 80 species and access allowance of associated PSC that are incidentally taken during the prosecution of BSAI groundfish fisheries. This action would not modify the specific species that are allocated, the amount of the TAC allocated to the Amendment 80 Program, or the specific percentage of catch that must be retained under the GRS. Since the implementation of the Amendment 80 Program in 2008, some Amendment 80 sector participants have expressed concern that the current requirements necessary to form a cooperative could impede the ability to form a cooperative and receive an exclusive allocation of Amendment 80 species. This could

disadvantage participants, and require them to continue to “race for fish,”¹ instead of receiving the benefits of cooperative relationships.

In February 2008, the Council requested a discussion and review of the criteria for establishing cooperatives under Amendment 80. NMFS and Council staff prepared a discussion paper that was presented to the Advisory Panel and Council in June 2008 to provide a qualitative review of the goals of the existing cooperative formation standards, current conditions in the fishery, and the implications of modifying cooperative formation criteria. The discussion paper reviewed criteria for the number of unique entities, the number of QS permits, and amount of assigned QS required for cooperative formation. The paper also examined the consequences of modifying one or more of the criteria, including interactive effects of those changes. The discussion paper noted that most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program.

Based on the information provided in the discussion paper and public testimony in June 2008, the Council adopted a draft purpose and need statement and recommended alternatives that would modify the existing cooperative formation standards for the Amendment 80 sector. In February 2009, the Council conducted an initial review of an action to modify Amendment 80 cooperative formation and released the amendment package for public review, which included the first five proposed alternatives and the GRS suboption described below. The Council modified some of the alternatives during the initial review. The Council asked staff to include the following information in the analysis before releasing for public review: expand the discussion of the purpose and need statement from Amendment 79 and Amendment 80; include 2008 catch data from the Amendment 80 cooperative separate from Amendment 80 limit access fishery; expand the discussion of GRS implementation and performance including GRS retention by vessel size; and expand discussion of cooperative requirements under other LAPPs. NMFS staff modified the analysis and the Council scheduled final action on Amendment 93 for April 2009. The Council did not take final action on Amendment 93 in April 2009, due to time constraints.

In October 2009, NMFS requested that the Council recommend an additional alternative to the Amendment 93 analysis after reviewing the Council’s purpose and need statement and the suite of alternatives being considered. NMFS proposed that the Council include an alternative (Alternative 6) that requires a cooperative to accept any person otherwise eligible to participate in a cooperative subject to the same terms and conditions that apply to all other members of the cooperative. The Council concurred with NMFS’ recommendation and included an additional alternative into the Amendment 93 analysis in October 2009. The Council also recommended that the Amendment 93

¹ The term “race for fish” refers to incentives that fishery participants have to harvest the TAC as quickly as possible. The National Research Council (NRC) Report *Sharing the Fish* (NRC 1999) notes that this behavior “typically leads to excessive fleet capacity and fishing effort (capital stuffing) and increasingly shorter seasons.” LAPPs that provide exclusive harvest privileges have been used by the Council and NMFS to encourage an end to the race for fish, thereby reducing potential adverse effects that may result from exceeding the TAC, encouraging fishing in a manner that reduces bycatch, improving vessel profitability through more deliberative and efficient fishing practices, and enhancing safety. An extensive discussion of the benefits of cooperative-based management for the Amendment 80 sector is contained in the final EA/RIR/FRFA prepared for the Amendment 80 Program (NPFMC 2007) and is incorporated by reference.

analysis be revised and be made available for a subsequent initial review prior to final action to allow additional review of the potential impact of this new alternative.

In June 2008, the Council adopted a draft purpose and need statement and recommended alternatives that would modify the existing cooperative formation standards for the Amendment 80 sector. With the adoption of the additional alternative in October 2009, minor modification to the draft purpose and need statement are required to reflect this new alternative. Staff suggestions to incorporate this new alternative are shown in strikeout and bold capitalized text below. **The Council should review these suggested modifications and adopt them, or similar text, as appropriate:**

Purpose and Need

Most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program. However, some participants have expressed concern that over the long term, cooperative formation standards may disadvantage them, and they may be constrained from establishing cooperative relationships, receiving an exclusive annual harvest allocation, and ending the “race for fish.” Smaller vessel owners with limited QS are likely to have weakened negotiating leverage as the groundfish retention standard (GRS) increases if they cannot be competitive in the limited access fishery and options in the Gulf of Alaska (GOA) are not viable. Participants of any size will find it difficult to receive the benefits of cooperative management if they cannot reach agreement on negotiated terms and the limited access fishery is an unattractive outside option, or a cooperative is able to derive some benefit from forcing an entity into the limited access fishery.

Relaxing cooperative formation standards either by reducing the number of quota share (QS) permits that must be assigned, or the number of owners required, **OR BY REQUIRING THAT ANY OTHERWISE ELIGIBLE MEMBER BE ACCEPTED BY A COOPERATIVE SUBJECT TO THE SAME TERMS AND CONDITIONS AS OTHER MEMBERS** could: (1) provide additional opportunities to QS holders to form cooperatives, because more relationships are possible; (2) diminish the negotiating leverage of vessel owners who may be necessary to meet the threshold requirements under more stringent cooperative formation standards; (3) reduce the potential risk of any one company being unable to negotiate settlement and be able to fish only in the limited access fishery; and (4) reduce the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative.

2.2 Proposed Alternatives

The alternatives recommended by the Council and addressed in this analysis include:

- Alternative 1: Status quo. A minimum of three unique QS holders holding at least nine QS permits are required to form a cooperative.
- Alternative 2: Reduce the number of unique QS holders required to form a cooperative from three to two or one unique QS holder.
- Alternative 3: Reduce the number of QS permits required to form a cooperative from the existing 9 permits to some lower range (e.g., three permits to the existing 9 permits).

- Alternative 4: Reduce both the number of unique QS holders and the number of QS permits required to form a cooperative (combination of Alternatives 2 and 3 above).
- Alternative 5: Allow a cooperative to form with a minimum of three unique QS holders holding at least nine QS permits (status quo), or a single or collective group of entities that represent 20 percent, 25 percent or 30 percent of the sector QS.
- **Alternative 6: Require that a cooperative accept all members of a cooperative who are otherwise eligible to join a cooperative subject to the same terms and conditions as all other members.**
- GRS Suboption (Applicable to all Alternatives): Allow the GRS to be applied in aggregate to all cooperatives if this calculation meets or exceeds the GRS requirement.

Under Alternative 3, the analysis has suboptions for 3, 6, 7, and 8 QS permits based on Council guidance.

Under Alternative 4, the suboptions include a range of combinations from the most restrictive cooperative formation standard (i.e., two QS holders and 6 QS permits), and the least restrictive (i.e., 1 QS holder and 3 QS permits).

Under Alternative 5, the phrasing of the alternative suggests that it is possible to form a cooperative either by meeting the existing requirements (i.e., three unique QS holders and nine QS permits) or by a single person, or group of people, meeting a minimum level of QS. If a cooperative is formed by a person or persons meeting the minimum QS holding requirement, other participants could choose to form a cooperative under the existing cooperative formation standards. Under the suboption where 30 percent of the QS must be assigned to a cooperative in order for it to form, no more than one person could qualify to form a cooperative as a single company under that option. The existing limitations that no person may hold more than 30 percent of the Amendment 80 QS pool unless that person held the catch history of qualifying vessels prior to final action by the Council in June 2006 (50 CFR 679.92(a)), and the prohibition on the severability of QS from the permit to which it is assigned (50 CFR 679.90(a)) effectively limits all but one company from being able to hold 30 percent or more of the QS pool. However, it would still be possible for more than one company to combine their QS holdings in order to meet the minimum QS holding standards of 30, 25, or 20 percent of the Amendment 80 QS pool.

Under Alternative 6, an otherwise eligible person could join any cooperative that has formed under the existing cooperative formation standards (i.e., three unique QS holders and nine QS permits) subject to the same terms and conditions that are applicable to all other cooperative members. This alternative would not directly modify the cooperative formation standards but would allow persons to establish cooperative relationships if the limited access fishery option was not acceptable to that person and they are willing to meet the terms and conditions applicable to all other members of the cooperative.

The GRS suboption would apply under all of the alternatives. It would not specifically modify the criteria to form a cooperative, but would modify the way in which the GRS is applied to cooperatives, once they have formed. Presumably, allowing the

GRS to be aggregated across cooperatives could reduce some of the potentially adverse consequences for vessel operators that may be disadvantaged if the cooperative standards are modified. During initial review in February 2009, the Council recommended incorporating the aggregate GRS as a redesignated suboption. The Council noted that as a stand-alone alternative, this provision did not appear to conform to the purpose and need statement adopted by the Council, which is specifically addressing cooperative formation standards, not the method used to compute the GRS. Because this suboption does not directly address cooperative formation standards, it is not analyzed directly with the other alternatives or suboptions in this analysis. The analysis does contain a general discussion of the effects and management and enforcement of this suboption in Section 2 of this analysis.

The Council noted that if the GRS suboption under Alternative 1 (status quo) was selected some modification to the purpose and need statement would be required. Should the Council choose Alternative 1 with the GRS suboption, a draft purpose and need statement is contained in the discussion of the Suboption in Section 2.4.6 of this document. The Council should review and modify that draft purpose and need statement, if applicable.

The maximum number of cooperatives that could form under the alternatives assuming that all 28 QS permits were issued by NMFS is described in Table 1. Table 1 assumes that the specific ranges of options described under Alternatives 1 through 5 are suboptions that the Council could choose to select. In cases where the alternative does not specify that a cooperative formation standard has been modified (e.g., Alternative 2 modifies the number of unique owners required, but not the number of QS permits), the status quota requirement for the other criteria is applied.

Table 1: Alternatives and Suboptions for Cooperative Formation				
Alternative	Suboption	Minimum number of unique QS holders required	Minimum number of QS permits required	Maximum number of cooperatives that could form
Alternative 1: Status quo	N/A	3	9	3
Alternative 2: Fewer unique QS holders	Suboption 1: 2 unique QS holders	2	9	3
	Suboption 2: 1 unique owner	1	9	3
Alternative 3: Fewer QS permits	Suboption 1: 6 QS permits	3	6	4
	Suboption 2: 3 QS permits	3	3	9
Alternative 4: Fewer unique QS holders and Fewer QS permits	Suboption 1: 2 QS holders and 6 QS permits	2	6	4
	Suboption 2: 2 QS owners and 3 QS permits	2	3	9
	Suboption 3: 1 QS holder and 6 QS permits	1	6	4
	Suboption 4: 1 QS holder and 3 QS permits	1	3	9
Alternative 5: Status quo or Minimum QS holding to form cooperative	Suboption 1: Status quo or 30 % of QS pool	3 or 1	N/A	3 or 3
	Suboption 2: Status quo or 25 % of QS pool	3 or 1	N/A	3 or 4
	Suboption 3: Status quo or 20 % of QS pool	3 or 1	N/A	3 or 5
Alternative 6: Accept all members	N/A	3	9	3

2.3 Background

2.3.1 Development of Amendment 80

After several years of development, the Council took final action to recommend Amendment 80 on June 9, 2006. The Council submitted Amendment 80 for review by the Secretary of Commerce (Secretary) in April 2007. NMFS approved Amendment 80 in July 2007, and published a final rule to implement Amendment 80 on September 14, 2007 (72 FR 14147). Fishing under Amendment 80 regulations began in 2008.

The Amendment 80 Program allocates several BSAI non-pollock trawl groundfish species among trawl fishery sectors and facilitates the formation of harvesting cooperatives in the non-AFA trawl catcher/processor sector. The Program meets the broad goals of (1) improving retention and utilization of fishery resources by the non-AFA trawl catcher/processor fleet by extending the GRS to all non-AFA trawl catcher/processor vessels; (2) allocating fishery resources among BSAI trawl harvesters in consideration of historic and present harvest patterns and future harvest needs; (3) establishing a LAPP for the non-AFA trawl catcher/processors and authorizing the allocation of groundfish species to harvesting cooperatives to encourage fishing practices with lower discard rates and to improve the opportunity for increasing the value of

harvested species while lowering costs; and (4) limiting the ability of non-AFA trawl catcher/processors to expand their harvesting capacity into other fisheries not managed under a LAPP. The purpose and need statement adopted by the Council for Amendment 80 follows:

The Council's primary concern is to maintain a healthy marine ecosystem to ensure the long-term conservation and abundance of the groundfish and crab resources. To this end, the Council is committed to reducing bycatch, minimizing waste, and improving utilization of fish resources to the extent practicable in order to provide the maximum benefit to present generations of fishermen, associated fishing industry sectors, including the CDQ sector, communities, and the nation as a whole, while at the same time continuing to look for ways to further rationalize the fisheries. Focusing on reduction of bycatch and the attendant benefits of cooperatives and CDQ allocations in meeting bycatch reduction objectives are initial steps towards rationalization of the BSAI groundfish fisheries. Bycatch reduction measures for the Non-AFA trawl Catcher Processor sector is a priority focus in this step toward rationalization given this sector's historical difficulty in achieving acceptable bycatch levels. Allocations to this sector associated with cooperative management of catch and bycatch provide the opportunity for participants in this sector to mitigate the cost, to some degree, associated with bycatch reduction. In addition to reducing bycatch in one sector, assurance should be provided to minimize negative impacts on others.

Prior to the adoption of Amendment 80, the GRS was approved by the Council under Amendment 79 in June 2003, published as a final rule on April 6, 2007 (71 FR 17362), and became effective in 2008. The GRS requires a minimum retention of all Federal groundfish in the BSAI for non-AFA trawl catcher/processors. Groundfish are defined in regulations at 50 CFR 679.2. The GRS requirement begins at 65 percent of all groundfish caught in 2008, rising to 75 percent in 2009, 80 percent in 2010, and peaking at 85 percent in 2011 and all future years. As recommended by the Council, the GRS originally applied only to vessels greater than or equal to 125 feet in length overall (LOA). The Council recommended not applying the GRS to vessels less than 125 feet LOA based on a review of the potential costs of enforcement relative to revenue for these vessels as well as the proportionally smaller amount of total catch that vessels less than 125 feet caught relative to larger vessels. A more extensive discussion of the rationale for the Council's application of a length standard to the GRS is found in the response to comment section of the final rule for Amendment 79 which was published in the *Federal Register* (April 6, 2006; 71 FR 17362).

The Amendment 80 LAPP is intended to improve retention and utilization of fishery resources by allocating six species (Aleutian Islands Pacific ocean perch, BSAI Atka mackerel, BSAI flathead sole, BSAI Pacific cod, BSAI rock sole, and BSAI yellowfin sole quota share (QS), which is a long-term harvest privilege, to persons: who met criteria established by Congress under the Capacity Reduction Program (CRP) in December 2004;² and based on landings of Amendment 80 species from 1998 through 2004.

The CRP defined the vessels that may initially qualify to participate as non-AFA trawl catcher/processors for specifically defined non-pollock groundfish species in the

² The CRP was enacted through the Consolidated Appropriations Act of 2005 (Public Law 108-447).

BSAI. All of the Amendment 80 species are defined as non-pollock groundfish species in the CRP. Specifically, the CRP allows only those non-AFA trawl catcher/processors that made a minimum of 150 metric tons of harvest of non-pollock groundfish³ in the BSAI from 1997 through 2002 to initially qualify for participation in the Amendment 80 fishery.⁴ Based on NMFS records, only 28 vessels met these criteria, and these vessels are listed in regulation and in Table 1.⁵

Amendment 80 defined the specific amount of QS derived from each of the 28 originally qualified vessels based on total catch from those vessels during 1998 through 2004. NMFS may issue a single QS permit for the catch history for each of the 28 vessels listing the amount of each of the six Amendment 80 species derived from the vessel's catch history. Once NMFS issues that QS permit it may not be subdivided and QS allocations of specific species may not be transferred separately. Furthermore, that QS permit is affixed to the vessel that gave rise to the QS. Once affixed to a vessel, a QS permit may not be transferred independently from that vessel. Vessel owners choose to apply for QS, and must do so by October 15 of the year prior to the year they intent to fish in the BSAI. However, prospective QS holders who chose not to apply for QS are not able to fish in the BSAI using trawl gear.

However, if a vessel sinks, is scrapped, or is otherwise permanently ineligible to be used in the program, the vessel owner may transfer the QS permit assigned to that vessel to the LLP license originally derived from that vessel.⁶ Once QS is assigned to an LLP license, NMFS reissues that LLP license with the QS affixed to it as an Amendment 80 LLP/QS license (LLP/QS license). With three exceptions shown in Table 1, the QS permits that may be issued in the Amendment 80 fishery are assigned to one of the 28 initially eligible vessels. Throughout this document the terms vessel owner and QS holder are used interchangeably because the vessel and QS are linked with these limited exceptions.

Each year, the program allocates an amount of Amendment 80 species available for harvest, called the initial total allowable catch (ITAC), and crab and halibut PSC to two defined groups of trawl fishery participants: (1) the Amendment 80 sector; and (2) the BSAI trawl limited access sector. The ITAC is the amount of the TAC remaining after allocations to the Western Alaska Community Development Quota Program (CDQ) and incidental catch needs by the BSAI trawl limited access sectors. The BSAI trawl limited access sector comprises all trawl participants who are not part of the Amendment 80 sector (i.e., AFA trawl catcher/processors, AFA trawl catcher vessels, and non-AFA trawl catcher/vessels). Allocations made to one sector are not subject to harvest by participants in the other fishery sector except under a specific condition: fish that are allocated to the BSAI trawl limited access sector and projected to be unharvested can be

³ The CRP identified non-pollock groundfish as Atka mackerel, flathead sole, Greenland turbot, Pacific cod, Pacific ocean perch, rock sole, and yellowfin sole.

⁴ On May 19, 2008, the United States District Court for the Western District of Washington issued an order in the case *Arctic Sole Seafoods v. Gutierrez* that vacated specific regulations that limit the use of specific vessels in the Amendment 80 Program to allow "a qualified [Amendment 80 vessel] owner to replace a lost qualifying vessel with a single substitute vessel." NMFS is in the process of implementing the Court's order.

⁵ See Table 31 to part 679 at: www.fakr.noaa.gov/reg/default.htm

⁶ See regulations at 50 CFR 679.90(e)

reallocated to Amendment 80 cooperatives by NMFS throughout the year to ensure a more complete harvest of the TAC.

The amount of ITAC assigned to the Amendment 80 and the BSAI trawl limited access sectors was based on a review of historic catch patterns during 1998 through 2004, with consideration given to various socioeconomic factors. As an example, a greater proportion of the Atka mackerel and Aleutian Islands Pacific ocean perch (AI POP) was assigned to the BSAI trawl limited access sector than is reflected in historic catch by that sector from 1998 through 2004. One exception to this rule applies to Pacific cod. Pacific cod ITAC is allocated to the Amendment 80 sector under the criteria that the Council adopted for Amendment 85 in April 2006. NMFS published a final rule implementing Amendment 85 in September 2007 (72 FR 50788) and Amendment 85 and Amendment 80 were fully implemented in 2008. The rationale for Pacific cod allocation to the Amendment 80 sector is described under the analysis prepared for Amendment 85 and is not repeated here.⁷

Annually, NMFS determines the division of the Amendment 80 sector's ITAC within the sector, based on QS holdings of sector members. Depending on a QS holder's choice, the portion of the TAC associated with that person's QS is assigned to either a cooperative or a limited access fishery. A vessel owner may choose to assign a vessel to either a cooperative or the limited access fishery, but owners of multiple vessels may choose to assign each vessel independently to a cooperative or to the limited access fishery depending on the perceived benefits of those choices for each specific vessel. In general, if a person who holds one percent of the Amendment 80 QS for a given species assigns that QS to a cooperative, one percent of that species TAC would be assigned to that cooperative for that year. Crab and halibut prohibited species catch (PSC) limits in the BSAI are allocated to the Amendment 80 and BSAI trawl limited access sectors and within the Amendment 80 sector in a similar manner. The PSC limits assigned to the Amendment 80 sector are lowered in a stepwise fashion over a period of years to provide additional reductions in PSC use over time.⁸

The Amendment 80 fleet is constrained by harvest limits in the GOA, commonly known as sideboards, that limit the catch of pollock, Pacific cod, northern rockfish, Pacific ocean perch, and pelagic shelf rockfish, as well as halibut PSC based on harvest patterns during 1998 through 2004.⁹ In addition, a number of the Amendment 80 vessels are participants in the Central GOA Rockfish Program LAPP and participate in either a cooperative or limited access fishery under that Program.

In addition, Amendment 80 modified the GRS as recommended under Amendment 79 in two critical ways. First, the GRS was extended to apply to all non-AFA trawl catcher/processors operating in the BSAI without an exemption for vessels under 125 feet LOA. Therefore, all Amendment 80 vessels regardless of size would be required to comply with the GRS. Second, Amendment 80 modified the method of calculating the total retention of catch that applies to cooperatives. Under the GRS as modified by Amendment 80, each vessel participating in the limited access fishery must ensure that it meets the GRS requirements based on the amount of catch retained by that

⁷ See Final EA/RIR/IRFA for Amendment 85: www.fakr.noaa.gov/analyses/amd85/bsa85final.pdf

⁸ See Tables 35 and 36 to part 679 at: www.fakr.noaa.gov/regs/default.htm

⁹ See Tables 37 and 38 to part 679 at: www.fakr.noaa.gov/regs/default.htm

vessel. Vessels participating in a cooperative can aggregate the total catch by all vessels in the cooperative and the total retained catch by all vessels in the cooperative.

2.3.2 Amendment 80 in the Context of GRS and Amendment 85

Although Amendment 80 was developed during the same period of time that the Council was developing the GRS (Amendment 79), and the allocation of BSAI Pacific cod (Amendment 85), the Council chose to adopt those measures as separate provisions and develop the specific aspects of the Amendment 80 Program, including cooperative formation standards, in a separate and distinct action. As such, the purpose and need for those actions are focused on addressing other problems. For reference, the Amendment 79 and Amendment 85 purpose and need statements follow:

Amendment 79 Purpose and Need

The Council's primary concern is to maintain a healthy marine ecosystem to ensure the long-term conservation and abundance of the groundfish and crab resources. Recognizing the importance of both the mandate of the Magnuson-Stevens Fishery Conservation and Management Act to reduce bycatch (discards) to the extent practicable, the US public's perception that discards in the BSAI are excessive, the economic importance of these groundfish fisheries, and the dependence of the participants on these fisheries, the Council is committed to reducing bycatch, minimizing waste, and improving utilization of fish resources to the extent practicable in order to provide the maximum benefit to present generations of fishermen, associated fishing industry sectors, communities, and the nation as a whole. Finally, the Council acknowledges the fact that any solution to the problem of reducing discards must take into account the ability of NOAA Fisheries to monitor discards and adequately enforce any regulations that are promulgated.

Amendment 85 Purpose and Need

The BSAI Pacific cod fishery is fully utilized and has been allocated among gear groups and to sectors within gear groups. The current allocations among trawl, jig, and fixed gear were implemented in 1997 (Amendment 46) and the CDQ allocation was implemented in 1998. These allocations are overdue for review. Harvest patterns have varied significantly among the sectors, resulting in annual inseason reallocations of TAC. As a result, the current allocations do not correspond with actual dependency and use by sectors.

Participants in the BSAI Pacific cod fishery who have made significant investments and have a long-term dependence on the resource need stability in the allocations to the trawl, jig, fixed gear, and CDQ sectors. To reduce uncertainty and provide stability, allocations should be adjusted to better reflect historic use by sector. The basis for determining sector allocations will be catch history, as well as consideration of socio-economic and community factors.

As other fisheries in the BSAI and GOA are incrementally rationalized, historical participants in the BSAI Pacific cod fishery may be put at a disadvantage. Each sector in the BSAI Pacific cod fishery currently has different degrees of license requirements and levels of participation. Allocations to the sector level are a

necessary step on the path towards comprehensive rationalization. Prompt action is needed to maintain stability in the BSAI Pacific cod fisheries.

Although the purpose and need statement for Amendment 85 contains a reference that the action is “a necessary step on the path towards comprehensive rationalization,” the Council’s final action on Amendment 85 was not predicated on future approval of Amendment 80. Similarly, the Council’s final motion for Amendment 80 clearly indicated that Amendment 80 could be implemented without Amendment 85, but should Amendment 85 be implemented, Pacific cod would be allocated as an Amendment 80 species with the resulting Pacific cod ITAC and a PSC apportionment.¹⁰ The Council sought to ensure that these two actions could be integrated, but were not required in order for one or the other to proceed.

2.3.3 Modification of Cooperative Formation Standards relative to the Previous Actions and MSA LAPP Provisions

During initial review of this analysis in February 2009, the Council and SSC expressed concerns that modifications to the cooperative formation standards would be inconsistent with the Council’s purpose and need statement for Amendment 80 (and possibly Amendments 79 and 85), and whether such potential inconsistencies may affect the ability of the Council to adopt the changes to the Amendment 80 Program proposed under this amendment. Conversations with NOAA General Counsel indicate that the MSA provides the Council with the authority to amend and modify the FMP, including removing or modifying aspects of previously adopted FMP amendments provided the rationale for any such changes are addressed in a subsequent amendment to the FMP, and those changes are otherwise consistent with the MSA and other applicable law.

Because the Amendment 80 Program provides exclusive harvest privileges to a specific person (i.e., cooperative quota is allocated to a cooperative), NMFS has identified the Amendment 80 Program as a “limited access privilege” consistent with the definition of that term under the MSA.¹¹ LAPPs are subject to specific statutory requirements in section 303A of the MSA. However, section 303A(i) exempts LAPPs that were adopted by a Council, or implemented by NMFS prior to amendment of the MSA on January 12, 2007 from most of the provisions under section 303A.¹² The Council took final action to adopt Amendment 80 in June 2006.

¹⁰ See Final Council motion in Section 1.8 of the Amendment 80 Analysis. The preamble to the Amendment 80 proposed rule (72 FR 30052, May 30, 2007) contains an extensive discussion of the relationship of Amendment 85 and Amendment 80 and the ability for NMFS to approve and implement these amendments independently. That discussion is not repeated here.

¹¹ Section 3(26) of the MSA:

‘Limited access privilege’--

(A) means a Federal permit, issued as part of a limited access system under section 303A to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person; and

(B) includes an individual fishing quota; but

(C) does not include community development quotas as described in section 305(i).”

¹² Section 303A of the MSA:

(i) TRANSITION RULES.—(1) IN GENERAL.—The requirements of this section shall not apply to any quota program, including any individual fishing quota program, cooperative

During review of this analysis in February 2009, Council members raised concerns that modifications to the Amendment 80 cooperative formation criteria could so substantially change the nature of the Amendment 80 program that those modifications effectively would produce a new LAPP that would be subject to section 303A of the MSA. The changes that the Council is considering with this FMP amendment do not fundamentally change the nature of the Amendment 80 Program. The proposed changes only address one aspect of the Amendment 80 Program, and would not alter the species allocated, the process of allocating QS, ITAC, the persons qualified to receive QS, GOA sideboards, bycatch reduction measures such as the extension of the GRS to all Amendment 80 vessels, or the suite of monitoring and enforcement measures that were adopted with Amendment 80. In addition, the changes that the Council is considering would arguably further the central goals of the Amendment 80 Program, encouraging the end to the race for fish (e.g., “by addressing the goal in the Council’s purpose and need statement of “continuing to look for ways to further rationalize the fisheries”), and the formation of cooperatives to help offset the potential costs of management under the GRS. As an example, depending on the specific alternatives chosen by the Council, the net effect of the action could be to provide greater opportunities for parties to form cooperative relationships, or to encourage a greater proportion of the ITAC to be harvested under cooperative management.

The suite of alternative changes proposed under this action are relatively limited in scope to cooperative formation standards, are consistent with the overall goals of the Amendment 80 Program and the purpose and need statement developed for this amendment.

2.3.4 Current composition of the Amendment 80 sector

Under the criteria established under the CRP, and the recommendations developed by the Council, NMFS could issue up to 28 QS permits for the originally qualifying vessels. Table 2 lists the vessels that are eligible to generate QS, the owners of those vessels, the length overall of the LLP licenses that were originally issued for those vessels, and whether those owners assigned their vessels and associated QS permits to either a cooperative, limited access fishery, or chose not to apply for QS for 2010. Several important aspects of the Amendment 80 Program that are relevant to this analysis and the proposed alternatives are provided in Table 1.

First, Table 1 shows that in 2010, nine QS permits have been assigned to the limited access fishery, 18 to a single cooperative, and one potential QS permit has not been allocated QS. In 2009, eight vessels were assigned to the limited access fishery, and 17 to a single cooperative, and three potential QS permits held by two unique persons had not been allocated QS. In 2008, 17 QS permits were assigned to the cooperative, seven

program or sector allocation for which a Council has taken final action or which has been submitted by a Council to the Secretary, or approved by the Secretary, with 6 months after the enactment of the this Act except that –

- (A) the requirements of section 303 (d) of this Act [the MSA] in effect on the day before the date of enactment of that Act [Public Law 109-479] shall apply to any such program;
- (B) the program shall be subject to review under subsection (c)(1)(G) of this section not later than 5 years after the program implementation; and
- (C) nothing in this subsection precludes a Council from incorporating criteria in this section into any such plans.

were assigned to the limited access fishery, and four QS permits held by three unique QS holders were not assigned QS because those QS holders did not apply. In 2009, one QS holder, Arctic Sole Seafoods, who did not apply for QS in 2008 chose to apply for QS and join the Amendment 80 sector in 2009. This decision appears to have been based largely on the result of litigation in *Arctic Sole Seafoods v. Gutierrez* that vacated specific regulations that limit the use of specific vessels in the Amendment 80 Program to allow “a qualified [Amendment 80 vessel] owner to replace a lost qualifying vessel with a single substitute vessel.” The owner of the *F/V Arctic Rose*, an originally qualifying Amendment 80 vessel, has replaced that vessel with the *F/V Ocean Cape* and has designated that vessel for use in the limited access fishery. In 2009, the QS permits based on the catch history of the *F/V Bering Enterprise* and *F/V Harvester Enterprise* were applied for, and issued. Only the QS permit that could be derived from the *F/V Golden Fleece* has not been issued. Additional discussion of possible reasons why that prospective QS holder may have chosen not to participate in the Amendment 80 Program is provided in Section 2.3.5 of the analysis.

Second, to help frame the analysis and potential negotiating positions of the various parties in the context of the GRS, Table 2 indicates vessels that may be considered as smaller vessels, in bold. Generally, smaller vessels have less sophisticated processing operations and may not be able to retain as many different products, or retain products as effectively or economically as larger vessels with more expansive processing operations, and greater hold capacity. There is not a clear distinction between large and small vessels in the Amendment 80 fleet, and several methods could be used to determine which vessels may have a weaker negotiating position due to their ability to reach the GRS standards. During the development of Amendment 79, the Council determined that vessels less than 125 feet LOA may be less capable of meeting the GRS on an individual basis. The Council’s decision was based on input from the Council’s technical committee during the development of Amendment 79. The Council was advised by the technical committee, as well as other public input, that vessels less than 125 feet LOA typically had smaller hold capacity, the costs of GRS compliance may be higher relative to their net revenue when compared to larger vessels, and vessels less than 125 feet LOA caught a much smaller proportion of the total catch by non-AFA trawl catcher/processors (i.e., Amendment 80 vessels) than vessels 125 feet or greater LOA.

Similarly, the Amendment 80 Analysis indicated that vessels of smaller sizes had a lower retention rate than larger vessels.¹³ For purposes of this analysis, smaller vessels would refer to vessels that are most likely to have a difficult time achieving GRS requirements if fishing independently. The Amendment 80 Analysis examined various size classes of Amendment 80 vessels as a means to assess the relative retention rate of vessels. Table 1-98 in the Amendment 80 Analysis noted that vessels with average length overall of less than 144 feet retained an average of 63 percent of their total catch during 1995 through 2003. This is slightly less than the initial GRS of 65 percent. While the retention rates during 1995 through 2003 may not reflect current retention rates, particularly for vessels targeting specific species with higher retention rates, or under cooperative management which reduces the incentive to race for fish, it provides some indication of the relative size of vessels that may have a difficult time meeting higher GRS requirements. This analysis assumes that vessels less than 144 feet LOA are

¹³ See Analysis at: www.fakr.noaa.gov/sustainablefisheries/amds/80/earirfrfa0907.pdf, Table 1-98

smaller vessels. In addition to all of the vessels that the Council identified as potentially having greater enforcement costs in the Amendment 79 Analysis, it includes several additional vessels with poorer retention rates. As the GRS increases, the definition of a smaller vessel would likely change as even larger vessels may become more constrained by the GRS, but such changes in the definition of a large or small vessel is not considered for this analysis.

The vessel length descriptions provided in Table 2 are based on NMFS data for the LLP licenses assigned to those vessels. Vessel length data can be inconsistent among various data sources. For example, United States Coast Guard (USCG) documentation designating the length of a vessel may measure length differently than the regulatory definition of LOA used by NMFS, and therefore, may differ from the vessel length reported to NMFS. Also, it is possible that the length on USCG documentation or the FFP may not reflect changes made to a vessel after length data has been reported. To avoid potential inconsistencies in data, and reporting differing lengths, this analysis assumes that the size of the vessel is no greater than the maximum length overall (MLOA) on the LLP license designating the vessel. Because no vessel may exceed the MLOA of the LLP licenses designating a vessel, this assumption ensures that although a vessel may be smaller than the MLOA of the LLP license designated for that vessel, it is not greater than that amount.

Third, Table 2 describes the current ownership structure within the Amendment 80 sector as well as the amount of QS that each unique QS holder is assigned. Data concerning the common ownership of vessels was provided primarily by members of the Amendment 80 sector, with additional information provided by a review of NMFS records.

Fourth, Table 2 denotes the original qualifying vessels that are no longer active in the Amendment 80 fleet in italics due to an actual or constructive loss (i.e., *Alaska Ranger*, *Arctic Sole*, *Prosperity*), or because those vessels have been reflagged under foreign ownership and are no longer eligible to reenter U.S. fisheries under the provisions of 46 U.S.C. 12108 (i.e., *Bering Enterprise*).

Table 2: Owners of Amendment 80 vessels, QS permits, LLP licenses and QS holdings derived from Amendment 80 vessels, and participation in 2010 cooperative and limited access fishery				
Participants in 2010 Amendment 80 Limited Access Fishery				
Participant Data		Percentage of Initial QS pool held by owner		
Owner₁	Amendment 80 Vessel(s)/LLPs with QS and length overall (LOA)₂	Species	Percentage by species	Percentage of aggregate QS pool
Fishing Company of Alaska (FCA), Inc. (Management entity for owner)	Alaska Juris (238 ft) <i>Alaska Ranger</i> ₃ (203 ft -QS assigned to LLP license derived from vessel) Alaska Spirit (221 ft) Alaska Victory (227 ft) Alaska Voyager (228 ft) Alaska Warrior (215 ft)	Flathead Sole (FSOL)	10.7	35.9
		Pacific cod (PCOD)	16.0	
		Rock sole (ROCK)	23.5	
		Yellowfin sole (YFIN)	38.3	
		AI POP (POP)	53.0	
		Atka mackerel (AMCK)	58.2	
Arctic Sole Seafoods	Ocean Cape (122 ft - QS assigned to LLP derived from originally qualifying vessel <i>Arctic Rose</i>)	FSOL	0.8	0.3
		PCOD	0.4	
		RSOL	0.6	
		YFIN	0.2	
		POP	0	
		AMCK	0	
Trident Seafoods	<i>Bering Enterprise</i> ₄ (183 ft)	FSOL	0.5	0.2
		RSOL	0.2	
		YFIN	0.5	
U.S. Seafoods, Inc. (Management entity for owners)	Ocean Alaska ₅ (124 ft)	FSOL	1.6	See aggregate total listed under Amendment 80 cooperative below
		PCOD	0.6	
		RSOL	0.6	
		YFIN	0.7	
		POP	0	
		AMCK	0	
U.S. Seafoods, Inc. (Cont.)	Alliance (124 ft) Legacy (132 ft) Prosperity (138 ft - QS assigned to LLP license derived from vessel) Seafreeze Alaska (296 ft)	FSOL	6.5	9.6 (Includes Ocean Alaska)
		PCOD	11.8	
		RSOL	8.9	
		YFIN	7.0	
		POP	14.3	
		AMCK	9.8	
Iquiqui U.S., LLC	Arica (186 ft) Cape Horn (158 ft) Rebecca Irene (140 ft) Tremont (131 ft) Unimak (185 ft)	FSOL	35.5	16.9
		PCOD	23.4	
		RSOL	26.6	
		YFIN	20.6	
		POP	0	
		AMCK	0.3	
O'Hara Corporation	Constellation (150 ft) Defender (124 ft) Enterprise (132 ft) Harvester Enterprise (188 ft)	FSOL	33.0	12.6
		PCOD	19.3	
		RSOL	17.2	
		YFIN	13.7	
		POP	0	
		AMCK	0.7	

Fishermen's Finest (Management Entity for owners)	American No. 1 (160 ft) U.S. Intrepid (185 ft)	FSOL	5.4	8.1
		PCOD	14.8	
		RSOL	14.6	
		YFIN	8.2	
		POP	0.4	
		AMCK	2.2	
Cascade Fishing, Inc. (Management Entity for owners)	Seafisher (230 ft)	FSOL	1.1	8.1
		PCOD	5.2	
		RSOL	1.9	
		YFIN	4.8	
		POP	18.6	
		AMCK	18.6	
Ocean Peace	Ocean Peace (219 ft)	FSOL	5.3	6.0
		PCOD	5.2	
		RSOL	4.2	
		YFIN	4.0	
		POP	13.6	
		AMCK	9.2	
Jubilee Fisheries	Vaerdal (124 ft)	FSOL	1.5	1.9
		PCOD	3.5	
		RSOL	3.5	
		YFIN	1.7	
		POP	0	
		AMCK	0.7	
Owner who did not apply for Amendment 80 QS and is not participating in 2010				
Golden Fleece	Golden Fleece (124 ft)	FSOL	0.2	0.1
		PCOD	0.5	
		RSOL	0.3	
		YFIN	0	
		POP	0	
		AMCK	0	

1 Ownership data are derived from multiple sources including information provided on Amendment 80 QS applications, Restricted Access Management (RAM) LLP database (<http://www.fakr.noaa.gov/ram/llp.htm#list>), Groundfish Forum (<http://www.groundfishforum.org>), and personal communications with Dave Benson (Trident), Bill Orr (Iquiqui U.S., LLC), Susan Robinson (Fishermen's Finest), Mike Szymanski (FCA), and Dave Wood (U.S. Seafood). Most owners designate subsidiary corporations to own the vessels. In turn, those subsidiary corporations are wholly owned by the owner.

2 LOA data derived from RAM LLP license database (see URL above). These data indicate the maximum LOA of the vessel that may use the LLP originally issued for that vessel. Vessel lengths listed in the NMFS database may differ from vessel lengths listed in USCG Vessel Documentation files.

3 Vessels that are no longer active in the Amendment 80 sector due to an actual total loss, constructive total loss or permanent ineligibility to receive a U.S. Fishery Endorsement under 46 USC 12108 are noted in italics.

4 The *Bering Enterprise* LLP license is currently held by Trident Seafoods, Inc., but will be assigned to O'Hara Corporation in 2010 (Dave Benson, Pers. Comm.)

5 Vessels considered to be smaller vessels for purposes of this analysis are noted in bold text.

It is worth noting that one participant, U.S. Seafoods, has assigned vessels to the single cooperative that formed in 2008, 2009, and 2010, as well as one vessel, *F/V Ocean Alaska*, to the limited access fishery. This choice likely reflects the perceived advantage that vessel may gain when fishing in the limited access fishery relative to the cooperative. Similarly, Arctic Sole Seafoods, has assigned its vessel to the limited access fishery, presumably for the same reason, or because it was unable or unwilling to successfully negotiate entry into the cooperative. The LLP license derived from the *Bering Enterprise*

is currently held by Trident Corporation, and the ITAC derived from that LLP license is designated to the limited access fishery because Trident Corporation is not a member of BUC. The LLP license derived from the *Bering Enterprise* is scheduled to be transferred to the O'Hara Corporation in early 2010. The transfer of the *Bering Enterprise* LLP license from Trident Seafoods to O'Hara Corporation did not occur in 2009 due to limitations on the number of times an LLP license may transfer during a calendar year. Because the ITAC derived from the *Bering Enterprise* LLP license is not associated with a specific vessel, other vessels in the limited access fishery will have access to that ITAC.

2.3.5 Cooperative Formation Standards Considered During the Development of the Amendment 80 Program.

Generally, the Amendment 80 Program is intended to facilitate the formation of cooperatives that will receive exclusive harvest privileges for a portion of these fishery resources known as cooperative quota (CQ). Participants who do not choose to join a harvesting cooperative must fish in a limited access fishery, without an exclusive harvest privilege, and must continue to race for fish with other participants in that fishery. The allocation of CQ allows vessel operators to make operational choices to improve returns from the fisheries and reduce discards of fish, because the limited access incentives to maximize catch rates to capture a share of the available catch are removed. The principal benefits from the Program are achieved with harvesters choosing to join cooperatives. In order to form a cooperative, three standards must be met:

1. The cooperative must be comprised of at least three unique persons who are not affiliated with one another through direct or indirect ownership of more than 10 percent in one another.¹⁴ This standard is commonly known as the American Fisheries Act 10 percent rule.
2. At least nine (of the 28 potentially available) QS permits in the Amendment 80 sector must be assigned to the cooperative¹⁵; and
3. The cooperative applies to receive a CQ permit by November 1 in the year prior to fishing.¹⁶

These cooperative formation standards are discussed in detail in the Final Environmental Assessment/Regulatory Impact Review/Final Regulatory Flexibility Act (Amendment 80 Analysis) prepared for the Amendment 80 Program, and were addressed during Council deliberations during the development of the program.¹⁷ The Council considered and rejected a range of options before ultimately selecting these criteria. The Council reviewed and rejected options that would have required fewer unique persons to form a cooperative. Yet, the minimum standards for cooperative formation selected were deemed to best meet the goals of encouraging cooperation and consolidation, minimizing costs, and providing adequate opportunity for individual participants to establish relationships with similarly situated harvesters.

¹⁴ See 50 CFR 679.91(h)(3)(iii) at: www.fakr.noaa.gov/regs/default.htm

¹⁵ See 50 CFR 679.91(h)(3)(ii) at: www.fakr.noaa.gov/regs/default.htm

¹⁶ See 50 CFR 679.91(b) and (h)(2)(ii) at: www.fakr.noaa.gov/regs/default.htm

¹⁷ See Analysis on NMFS website at: www.fakr.noaa.gov/sustainablefisheries/amds/80/earirfifa0907.pdf

2.3.5.1 Cooperatives vs. Individual Fishing Quota

The Amendment 80 Analysis notes that cooperative management offers several advantages over individual fishing quotas (IFQs). Specifically, multispecies quotas for both target and bycatch species are difficult to manage when not managed on an aggregate basis. The likelihood that any person would exceed a given allocation may increase under IFQ management. The Amendment 80 Analysis notes that managing and monitoring individual quota accounts is more costly and complex than cooperative allocations. NMFS also notes that another goal of the Program was to reduce bycatch, improve the retention of bycatch, and reduce the potential costs associated with bycatch reduction compliance. Applying the GRS on an aggregate basis to vessels in cooperatives may help meet that goal, by allowing vessels to coordinate the harvest and processing of allocations, whereas under an IFQ system, vessel owners may have little or no incentive to coordinate with other vessel owners, thereby creating conditions that could result in stranded ITAC, or conditions that could effectively force some IFQ holders to transfer their IFQ on unfavorable terms to other IFQ holders who could meet the GRS standard.

2.3.5.2 The single cooperative alternative

During the development of the Amendment 80 Program, the Council considered alternatives that would have required all QS holders in the fleet to choose to join a cooperative in order to form a cooperative, the common name for this requirement was the single cooperative alternative, because only one cooperative could form. This alternative was removed from further consideration due to concerns that it may not be possible for all parties to agree to the terms for contract formation. The negotiating leverage of the last QS holder necessary to meet this standard could place undue pressure on the remaining members of the cooperative to accede to unreasonable demands of the last member. This dynamic would also create a strong incentive for each QS holder to refuse to agree to negotiate any contract terms in the hope that the QS holder would be able to receive more favorable terms as the last member. This option was rejected, because it failed to create incentives to encourage harvesters to end the race for fish through cooperative management.

2.3.5.3 Cooperatives with multiple QS holders and permits

Because the Council rejected IFQ management and a single cooperative alternative as contrary to the goals of the Amendment 80 Program, the Council considered those requirements that would encourage cooperative formation while addressing the potentially conflicting interests of various participants. The Council was aware that the Amendment 80 sector was comprised of larger vertically integrated companies with multiple vessels with substantial catch history (and could therefore receive multiple QS permits), as well as single vessel companies. The Council sought to select cooperative formation standards that would encourage these various participants to cooperate to improve their ability to meet the expanded GRS requirements that Amendment 80 would impose.

As noted in the Council's purpose and need statement, the Council specifically recommended cooperative management as a mechanism to help mitigate the relatively higher costs of GRS compliance that may be imposed on smaller vessel operators with

the expansion of GRS. However, the Council also recognized that allowing cooperatives to form could lead to “increasing utilization and retention” of fishery resources.¹⁸ The Council’s purpose and need statement did not specify criteria for accomplishing these goals, and a range of options were considered to address the Council’s purpose and need statement. Ultimately, the Council considered minimum requirements on the number of QS holders (i.e., vessel owners) and the number of QS permits as the mechanisms that would best encourage cooperative formation among a variety of industry participants.

The deliberations of the Council during the development of the cooperative formation standards reflect the suite of issues that the Council sought to balance. Early in the development of the cooperative formation standards, Council members recognized that less restrictive cooperative formation standards may “provide greater flexibility for persons who may want to work together within a [cooperative] to address both harvesting efficiencies and the groundfish retention standard.”¹⁹ Furthermore, Council members were aware of “a tension there between providing flexibility for like minded persons to join a [cooperative] and getting the benefits from that versus NMFS’s ability to parse out allocations into smaller and smaller groups.”²⁰

During the development of the cooperative formation standards, industry participants expressed concern that applying only a minimum QS holder standard could create an incentive for a small cooperative to form comprised with little incentive to coordinate with other participants. In addition, industry participants expressed concern that establishing a cooperative formation standard that required only a minimum number of QS permits to form could create condition that would allow larger companies holding multiple QS permits to effectively form a cooperative without any participation from single vessel companies. Although the range of public input differed on the cooperative formation standards, at one point during the development of the Amendment 80 Program, representatives from the same interests that ultimately formed BUC advocated that only 15 percent of the QS permits should be required to form a cooperative.²¹ This standard would have been less restrictive than the one ultimately chosen by the Council. Although public input guided the Council to consider a cooperative formation standard that would require both a minimum number of unique QS holders and QS permits, the Council assessed cooperative formation standards based on public comments, the Analysis, and perspectives provided during deliberations.

The Council clarified that a QS holder would be considered unique from other QS holders only if that QS holder did not share a 10 percent or greater direct or indirect ownership linkage with any other QS holder. The Council has used this standard to define a unique person since the implementation of the AFA in 1999. The intent of this definition is to ensure that entities are truly distinct and not merely uniquely named corporate entities that, in fact, share common shareholders. A similar standard for defining a unique QS holder has been applied as a requirement to meet minimum cooperative formation requirements in the BSAI Crab Rationalization Program, and the Central GOA Rockfish Program.

¹⁸ Earl Krygier, Transcript from February 2006 Council meeting, Agenda Item C-1, p. 15.

¹⁹ Sue Salvesson, Transcript from June 2005 Council meeting, Agenda Item C-7, p. 21.

²⁰ Sue Salvesson, Transcript from June 2005 Council meeting, Agenda Item C-7, p. 22.

²¹ Dorothy Lowman, Transcript form October 2005 Council meeting, Agenda Item C-3, p. 60.

In addition to the single cooperative formation standard that would have required all QS holders to participate, or all but one unique QS holder, the Council considered a range of options that would have required a minimum of two, or three unique QS holders in order to form a cooperative. A preliminary review of the Council deliberations leading to the recommendation of Amendment 80 indicates that the Council was concerned that requiring only two unique entities to form a cooperative could create conditions that would disadvantage the negotiating position of QS holders with lower retention standards.

As with any analysis of negotiating leverage, the Council was, and is, limited to a largely qualitative consideration of the factors affecting negotiation positions because of the wide variety of factors affecting negotiations (e.g., previous business relationships, variations in the fisheries targeted by specific QS holders, retention rates relative to the GRS), and the inability to quantify those positions. Section 1.11.7 of the Amendment 80 Analysis noted that GRS compliance could be a key factor in the negotiations among cooperative members, and is cited below.

The dynamics of cooperative formation negotiations could also be affected by the enforcement of GRS requirements at the cooperative level. Since the ability to comply with GRS requirements may vary across vessels, intra-cooperative compliance with GRS requirements will be subject to negotiation. A vessel with above average compliance costs might choose to use the cooperative level management mechanism to reduce its retention costs, negotiating the terms of that trade off in the cooperative agreement. Since the value of GRS compliance is somewhat intangible (in comparison to the value of annual allocations) analysis of the effects on negotiations is difficult. As with negotiations of other terms, a person will compare the opportunity in the limited access fishery, against their cooperative opportunity. In general, participants in a cooperative should be better able to comply with GRS standards than participants in the limited access fisheries who face the time pressures of the race for fish. In a single cooperative structure [i.e., standards are set so that only one cooperative may form], it is possible that one segment of the sector could control cooperative formation. If that segment largely consists of persons that find GRS compliance challenging and costly, it is possible that they could attempt to impose terms on persons that are well equipped to comply with GRS. Since the cooperative will control outsiders' access to the more lucrative share-based portion of the fishery, it is possible that cooperative members could gain concessions on GRS compliance terms. Using this approach, the cooperative could negotiate GRS compliance terms that are favorable to those that face relatively costly compliance, if persons outside the cooperative perceive substantial gains from joining the rationalized fishery.

Conversely, although not explicitly noted in the Amendment 80 Analysis, it is possible that QS holders better able to comply with the GRS could seek to exclude members with poor GRS compliance, if those participants would diminish the likelihood

of the cooperative meeting the GRS standards. Under that scenario, it could be possible that entities better able to comply with the GRS could seek to exclude members that it deemed “risky.” During final action approving Amendment 80, it appears that the Council had these negotiating dynamics in mind when it recommended that a minimum of three unique QS holders be required to form a cooperative. The Council noted that there was a desire not to create an IFQ program because it wanted to encourage cooperation among fishery participants, in part to address GRS compliance concerns. The Council sought to provide some balance between an IFQ and a cooperative structure that would allow only one cooperative to form. The Council considered three unique QS holders as an effective way to provide negotiating leverage to QS holders that would provide opportunities for encourage single vessel and multiple vessel companies to coordinate to negotiate terms of the cooperative that would meet the requirements of all parties.

In addition to the minimum number of unique QS holders, the Council did consider a minimum number of QS permits that would need to be assigned to a cooperative. The Council considered alternatives that would have required 15 percent of the QS permits, 30 percent of the QS permits, 67 percent of the QS permits, 100 percent of the QS permits, and all less one QS permit. Again, the Council considered the effect of these various criteria and concluded that, in general, less restrictive criteria would most likely facilitate greater cooperation, but monitoring and enforcing a greater number of cooperatives could increase costs relative to fewer number of cooperatives. Section 1.11.7 of the Amendment 80 Analysis concluded the following.

Single cooperative systems could simplify management oversight by NOAA Fisheries. The single cooperative system, however, could have some pitfalls. Single cooperative systems could result in no cooperative formation, if the threshold cannot be reached, effectively negating any potential benefit that could arise from this program. A single cooperative system also could provide some sector members with negotiating leverage that is disproportionate to the benefits that they bring to the cooperative. This effect could be particularly problematic in a system that is intended to reward certain characteristics (i.e., improved retention, historic participation, efficient operations). While multiple cooperative systems could address some of these distributional concerns, additional management burdens would be more costly.

Although multiple cooperatives may require some slight increase in monitoring and enforcement costs, this section of the Amendment 80 Analysis did not compare the relative costs to NOAA Fisheries (NMFS) of managing multiple cooperatives versus the costs of monitoring and enforcing the Amendment 80 limited access fishery. Recent discussions with NMFS inseason staff indicate that although the costs of managing multiple cooperatives is slightly higher than a single cooperative, those costs may not be as substantial as suggested in the Amendment 80 Analysis.²² Additional detail on management costs under this proposed action is provided in Section 2.5.4. Based on a preliminary review of the Council record during Amendment 80 deliberations, it appears

²² Personal Communication, Mary Furuness, Steve Whitney, NMFS Inseason Staff, January 2009.

that the Council considered the potentially greater management costs to NMFS as a key factor in its selection of the 30 percent alternative over the 15 percent alternative.²³

Overall, an initial review of the Council deliberations, industry testimony, and the Amendment 80 Analysis indicates that the Council selected cooperative formation standards to address concerns raised by some industry participants that holders of relatively small QS amounts (or owners of smaller vessels) could become less desirable as cooperative members as the GRS is increased. The minimum cooperative formation standards selected sought to balance the negotiating leverage of the various fishery participants to ensure that they could continue to be members of cooperatives and receive value for their QS through that membership. When selecting the cooperative formation standard, the Council was conscious of “diversity in [the Amendment 80] fleet between both retention standards and catch histories and species diversification” and Council members expressed a desire “that a company would not be able to form a [cooperative] by themselves and therefore, again, you spread the benefits out and it would allow the sector as a whole a chance to rationalize...”²⁴ The Council specifically noted that a standard that allowed multiple cooperatives “is certainly superior” to models that did not provide flexibility in the relationships that could form among the various parties.²⁵ The Council was aware that over time one would expect smaller vessel owners who may have more difficulty meeting GRS requirements, to be disproportionately disadvantaged by the competition in the limited access fishery, and would require cooperative relationships to remain viable.²⁶

2.3.6 Cooperative formation standards in other cooperative programs

In February 2008, the Council and SSC requested additional information on cooperative standards used in other LAPPs. Table 3 provides an overview of the cooperative formation standards in the five LAPPs currently in place in the North Pacific. Under all of these LAPPs, except the Amendment 80 Program, a single company or person may realize the benefits of an exclusive harvest privilege either by fishing under an IFQ or because the cooperative formation standards applicable under those LAPPs do not preclude the ability of a single company or person holding an exclusive harvest privilege through a cooperative arrangement.

²³ Additional discussion of the potential increased costs of multi-cooperative management was provided by NMFS staff during June 2005 deliberations (p. 22 of June 2005 Council transcript) and by Council staff during October 2005 deliberations (p. 19 of October 2005 Council transcript).

²⁴ Arne Fuglvog, Transcript from June 2006 (Final Action) Council meeting, Agenda Item C-2, p. 38.

²⁵ Arne Fuglvog, Transcript from June 2006 (Final Action) Council meeting, Agenda Item C-2, p. 38.

²⁶ Additional discussion of this topic is provided in the Section 1.11 of the Amendment 80 Analysis and in the transcripts from June 2006 Council meeting.

Table 3: Cooperative Formation Standards in North Pacific LAPPs			
LAPP	Exclusive Harvest Allocation Type	Cooperative Formation Standard	“Single Company” Permitted to hold exclusive harvest privilege?
AFA	<p>Exclusive allocation to cooperatives in the catcher vessel sector only.</p> <p>Catcher/processor sector does not receive an exclusive harvest privilege though voluntary contractual arrangements exist to divide the TAC allocated to the sector.</p>	<p>For the catcher vessel sector, cooperatives, at least 80 percent of the qualifying AFA catcher vessels delivering to an AFA processor must agree to form a cooperative.</p> <p>Regulations further describe which AFA processor an AFA vessel may form a cooperative with based on landings in the previous year or in the last year the vessel was used. A minimum of 90 percent of the Bering Sea pollock assigned to a cooperative must be delivered to the AFA processor where those vessels have delivered catch. (See 50 CFR 679.4(1)).</p>	<p>Yes, although use caps limit the ability for any AFA entity (i.e., person) from harvesting more than 17.5% of the directed Pollock fishery, nothing in the AFA or NMFS regulations prevents a single company from owning all of the AFA vessels and AFA processor required to form a cooperative.</p>
Halibut and Sablefish IFQ Program	IFQ	No	<p>Yes, there are no cooperative allocations under the IFQ Program, only individual persons or companies may hold QS and the resulting IFQ.</p>
Central GOA Rockfish Program	Exclusive allocations to catcher vessel and catcher/processor cooperatives	<p><u>Catcher vessel sector</u>: At least 75 percent of all the legal rockfish landings that yielded Pacific ocean perch, pelagic shelf rockfish, and northern rockfish QS delivered to an eligible rockfish processor during a specific four-year time period selected by that processor.</p> <p><u>Catcher/Processor sector</u>: Two LLP licenses with Rockfish QS in the catcher/processor sector. (See 50 CFR 679.81(i)).</p>	<p>Yes <u>Catcher vessel sector</u>: as with the AFA nothing specifically prohibits a person from holding at least 75 % of the Rockfish QS delivered to a specific processor, or the eligible rockfish processor.</p> <p><u>Catcher/processor sector</u>: Nothing prohibits one person from owning the LLP licenses required to form a cooperative.</p>
BSAI Crab Rationalization Program	IFQ is allocated to a QS holder or to a cooperative if that QS holder joins a cooperative.	<p>A minimum of four unique QS holders in that crab QS fishery.</p> <p>There are no requirements on the amount of QS that each person in a cooperative must hold. (See 50 CFR 680.21(a)).</p>	<p>Yes, persons may receive individual allocations of IFQ instead of participating in a cooperative.</p>
Amendment 80 Program	Exclusive allocations and catcher/processor cooperatives	A minimum of three unique QS holders and nine QS permits must be assigned to a cooperative.	No

The rationale provided for allowing individuals to hold exclusive harvest privileges have differed in detail among the LAPPS, but fundamentally address the goal of ending the race for fish. Other rationales are more specific to certain LAPPS, such as improving the safety of life at sea (BSAI Crab Rationalization Program), improving the quality of product, timing of landings, and testing rationalization in the context of the GOA (Central GOA Rationalization), or providing opportunities to mitigate the costs of bycatch reduction (Amendment 80 Program). Allowing the allocation of exclusive harvest privileges to individuals or single companies is consistent with past practice in all but one of the LAPPS, the Amendment 80 Program, in the North Pacific.

One would expect that the negotiating positions among potential cooperative members in LAPPS that provide an opportunity for individual allocations (e.g., BSAI Crab Rationalization and Central GOA Rockfish) would differ from the Amendment 80 Program because the outside option would not necessarily result in a competitive race for fish. The ability for parties to realize the benefits of an exclusive allocation or seek alternative partners may reduce some of the potential adverse negotiating positions of various parties. As an example, under the BSAI Crab Rationalization Program only four QS holders are required to form a cooperative in a crab QS fishery with no limitation on the amount of QS that a person must hold. This provides ample opportunities for myriad relationships and the negotiating leverage of any one party is likely to be more directly proportional to the potential QS a person may allocate to the cooperative.

Similarly, the Council recommended fairly liberal cooperative formation standards for the Central GOA Rockfish Program that would allow a maximum of 7 cooperatives to form among the 15 eligible catcher/processor endorsed LLP license holders in that LAPP. Ten of the 15 participants in the Central GOA Rockfish Program are also eligible under the Amendment 80 Program.

During the initial review of the document, SSC members requested a review of potential options to require that a cooperative must accept any member who is otherwise eligible subject to the same cooperative arrangements applicable to other members. Provisions requiring “open” cooperative membership apply under the Central GOA Rockfish Program for harvesters in the catcher vessel sector. During the development of that LAPP, the Council recognized that, because a catcher vessel may only participate in a cooperative with a specific processor, catcher vessels had no alternative means to form a cooperative. A similar condition does not exist in the Amendment 80 sector, and no such requirement was implemented as part of the program.

During the proposed rule stage, NMFS considered a similar provision for the Amendment 80 Program. Some industry participants expressed concerns that this provision would frustrate the intent of the Amendment 80 cooperative standard. Primarily, industry participants noted that “Cooperative membership is voluntary, and every eligible entity has multiple opportunities to form alliances that balance the members’ needs while assuring that the responsibilities of the cooperatives are met.”²⁷ Other comments on the proposed rule noted that the existing cooperative formation “will inhibit the formation of cooperatives and promote skullduggery within the industry to the point where some participants may be the victim of unfair business practices. Participants may exclude selected participants from joining all cooperatives and force them into the

²⁷ Comment 37, Amendment 80 Proposed Rule (72 FR 52695)

Amendment 80 limited access fishery so that all of the rollover of PSC and Amendment 80 species from the BSAI trawl limited access fishery would go directly to the cooperatives. These rollovers could amount to millions of dollars worth of fish. Such large financial incentives are certainly more than enough motive for the other companies to ‘freeze out’ selected participants.”²⁸ NMFS reviewed these concerns, consulted with Council and Council staff, and concluded that “this requirement is not required under the [Amendment 80] Program and has removed it from § 679.91(h)(1). This requirement is not necessary, and would adversely affect the ability of Amendment 80 sector participants to form cooperatives as intended by the Program. NMFS notes that the Council did not recommend this requirement during the development of the Program. Amendment 80 sector participants can form cooperative relationships with any other participant in the Amendment 80 sector. As such, there is no need to require a person be accepted by a cooperative.”²⁹ Additional detail on this issue is provided in section 2.4.6.

2.3.7 Fishing Practices of the Amendment 80 Sector: 2003-2008

2.3.7.1 Limitations on Data

A key rationale presented by some industry participants for seeking to modify the cooperative formation standards is the desire for some industry participants to fish in a LAPP and end the race for fish. Unfortunately, the available data are limited and it is difficult to compare fishery performance prior to and after the implementation of Amendment 80, much less between the cooperative and the limited access fishery.

Vessels have been operating under the Amendment 80 Program for only two years, and past experience with LAPPs suggests that fishing patterns in the first few years of a new management program may not necessarily be indicative of long-term fishing patterns that develop. As an example, a smaller proportion of the QS holders were active in crab harvesting cooperatives in the first year of the BSAI Crab Rationalization Program than currently, and there was a number of participants chose not to participate in AFA inshore cooperatives in the first year of that LAPP.

The MSA and agreements with the State of Alaska require that any analysis using catch data may not reveal data from an individual without the consent of that person.³⁰ To ensure that analyses do not indirectly reveal individual data, Council and NMFS staff have established a “rule of three” policy that prohibits the release of catch data comprised

²⁸ Comment 38, Amendment 80 Proposed Rule (72 FR 52695)

²⁹ Response to Comment 37, 80 Proposed Rule (72 FR 52695).

³⁰ Section 402(b)(3) of the MSA notes, “The Secretary [of Commerce] shall, by regulation prescribe such measures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement or regulation under this Act [MSA], except that the Secretary may release or make public any such information in any aggregate or summary form which does not directly or indirectly disclose the identity or business of any person who submits such information.” Similarly, State of Alaska statutes governing the use of fishery data at Section 16.05.815(a) notes that “records required by regulations of the department (ADF&G) concerning the landings of fish, shellfish, or fishery products, and annual statistical reports of fishermen, buyers, and processors required by regulation of the department are confidential and may not be released by the department or by the Alaska Commercial Fisheries Entry Commission except as set out in this subsection.” This statute also notes that records and reports may be released to NMFS (and other entities) provided NMFS “agrees to maintain the confidentiality of the records and reports.” NMFS has established a Memorandum of Understanding with ADF&G on the use and release of State of Alaska data.

of less than three individuals. The definition of an individual is subject to interpretation. Council staff and Council analyses have considered each vessel as a unique individual when reporting vessel catch data.

Under the Amendment 80 Program, NMFS inseason staff interpret “an individual” as a unique company. In cases where NMFS is aware of common ownership of more than one vessel by a company, which is the case with the Amendment 80 sector, NMFS considers the catch from all vessels within that common ownership structure as being derived from a single individual. Generally, NMFS considers a fishery cooperative as a single individual, for purposes of the release of confidential data and the even though a fishery cooperative may be comprised of multiple companies that do not share a common ownership.

NMFS received waivers from the Amendment 80 sector to release aggregate limited access fishery and cooperative fishery data from the 2008 fishing year. A similar request was made for waivers to release aggregate limited access fishery and cooperative data for 2009, and the relevant parties in the Amendment 80 sector agreed to release data. At this time, a number of vessels in the cooperative and limited access fishery are still active, or have expressed an interest in becoming active in the yellowfin sole fishery. Releasing limited 2009 catch data, and later releasing total catch data from 2009 could result in revealing the catch of specific vessels during November and December. Because the waiver granted is specific to aggregate data, rather than vessel specific data, partial 2009 data is not included in this analysis, but total catch data from 2009 will be included in subsequent versions of this analysis.

2.3.7.2 Fishery performance in 2008 vs. 2003-2007

Given the data limitations described above, the analysis provides limited comparisons between performance of the cooperative and limited access fishery in 2008 compared to eligible Amendment 80 vessels from 2003 through 2007. This time period for comparison was selected as most representative of current fishing practices. In addition, catch data from catcher/processors that were collected prior to 2003, may be combined with observer data in an aggregated format (commonly known as “blend data”). Because the data sources used before and after 2003 may differ and the reconciliation of those data sources to provide accurate comparisons can be complicated, this analysis uses only data after 2003.

Data presented in these tables include data from the *F/V Alaska Ranger*. That vessel sank in April 2008. In some cases, data from that vessel are extrapolated from weekly production reports, rather than observer data, which was lost with the vessel. These extrapolations may not accurately reflect fishery performance of the vessel prior to sinking.

Table 4 identifies the TAC of BSAI groundfish species, total catch by all vessels, catch by Amendment 80 vessels, and the percentage of TAC and total catch attributed to Amendment 80 vessels. This table provides total catch in the cooperative and limited access fishery for 2008.

Table 5 describes the PSC usage by Amendment 80 vessels in the BSAI in metric tons, or numbers of animals (for crab and non-Chinook salmon), and calculates the PSC rate of each PSC species per metric ton of groundfish catch by Amendment 80 vessels. This table provides total PSC use in the cooperative and limited access fishery for 2008.

Table 6 provides an overview of catch of groundfish and use of PSC in the BSAI by the Amendment 80 sector in 2008, relative to the initial allocation of ITAC to the Amendment 80 sector. This table provides total catch and PSC use in the cooperative and limited access fishery for 2008.

Table 7 provides an overview of the percentage of the QS pool assigned to the limited access fishery and cooperative in 2008 to provide a context for the potential number of participants and amount of QS that could be assigned to a cooperative.

Tables 8 and 9 are similar to Table 3, and identifies the TAC of select GOA groundfish species and species groups that historically have been targeted by Amendment 80 vessels, total catch by all vessels, catch by Amendment 80 vessels, and the percentage of TAC and total catch attributed to Amendment 80 vessels. Table 7 describes catch in the Western GOA (Area 610), and Table 8 describes the Central GOA (Areas 620 and 630). Data from the West Yakutat District (Area 640) is not presented due to concerns about releasing confidential data. The waivers granted by industry participants for 2008 catch data specifically referenced the BSAI cooperative and limited access fisheries, therefore data in the GOA is not described separately for the Amendment 80 cooperative and limited access fisheries to avoid the release of potentially confidential data.

Table 9 is similar to Table 4, and describes halibut PSC use by Amendment 80 vessels in the GOA in metric tons. Crab and salmon PSC are not subject to limits in the GOA, as they are in the BSAI, and therefore are not constraining on groundfish operations and are not analyzed. Because these data include PSC use by Amendment 80 vessels in the Central GOA Rockfish fishery, it is not appropriate to calculate PSC rates per metric ton of groundfish. NMFS must perform additional reviews of the available data before providing PSC data on a fishery specific basis, to avoid the release of confidential data.

Table 4: Total Groundfish Catch by All Vessels and All Amendment 80 Vessels from 2003-2008

Year	Species	Non-CDQ TAC (mt)	Total Catch (All vessels)	Amendment 80 (A80) Catch (mt)	A80 Catch as % of Non-CDQ TAC	A80 Catch as % of Total Catch
2003	Aleutian Islands POP (AI POP)	10,787	12,756	12,714	117.86%	99.67%
	Atka Mackerel	51,000	54,045	51,804	101.58%	95.85%
	Flathead sole	17,000	13,807	11,521	67.77%	83.45%
	Pacific cod	176,375	196,495	29,728	16.86%	15.13%
	Rock sole	37,400	35,498	32,315	86.40%	91.04%
	Yellowfin sole	71,188	74,251	68,818	96.67%	92.68%
	Alaska Plaice	165,000	9,673	9,318	5.65%	96.33%
	Arrowtooth Flounder	10,200	12,858	9,560	93.73%	74.35%
	Greenland Turbot	3,400	3,465	857	25.21%	24.74%
	Northern Rockfish	5,100	4,651	4,545	89.12%	97.73%
	Other flatfish	2,550	2,871	2,400	94.13%	83.60%
	Other Rockfish	1,355	717	418	30.83%	58.30%
	Other Species	27,463	25,562	7,349	26.76%	28.75%
	Pollock	1,343,634	1,342,145	26,421	1.97%	1.97%
	Sablefish	5,076	1,937	211	4.15%	10.88%
	Shortraker/Rougheye Rockfish	822	397	217	26.35%	54.57%
Squid	1,675	843	53	3.19%	6.34%	
Total	1,930,025	1,791,968	268,249	13.90%	14.97%	
2004	AI POP	9,496	10,479	10,448	110.02%	99.71%
	Atka Mackerel	53,550	56,068	54,400	101.59%	97.03%
	Flathead sole	16,150	16,846	14,195	87.89%	84.26%
	Pacific cod	183,175	196,131	37,983	20.74%	19.37%
	Rock sole	34,850	47,789	43,910	126.00%	91.88%
	Yellowfin sole	73,164	69,188	63,292	86.51%	91.48%
	Alaska Plaice	8,500	7,587	7,267	85.49%	95.78%
	Arrowtooth Flounder	10,200	17,721	14,659	143.72%	82.72%
	Greenland Turbot	2,975	2,199	624	20.98%	28.39%
	Northern Rockfish	4,250	4,280	4,176	98.25%	97.55%
	Other flatfish	2,550	4,699	3,986	156.31%	84.83%
	Other Rockfish	930	635	383	41.15%	60.31%
	Other Species	23,124	26,051	7,568	32.73%	29.05%
	Pollock	1,347,660	1,331,102	35,552	2.64%	2.67%
	Rougheye Rockfish	166	206	160	96.20%	77.56%
	Sablefish	5,078	1,821	280	5.52%	15.39%
Shortraker Rockfish	447	213	83	18.52%	38.82%	
Squid	1,084	861	34	3.17%	4.00%	
Total	1,777,349	1,793,875	298,999	16.82%	16.67%	
2005	AI POP	9,520	8,930	8,687	91.24%	97.27%
	Atka Mackerel	53,550	57,643	56,572	105.64%	98.14%
	Flathead sole	16,575	15,217	12,101	73.01%	79.52%
	Pacific cod	175,100	190,942	30,532	17.44%	15.99%
	Rock sole	35,275	35,539	33,179	94.06%	93.36%
	Yellowfin sole	77,083	87,794	79,264	102.83%	90.28%
	Alaska Plaice	8,500	11,071	9,986	117.48%	90.20%
	Arrowtooth Flounder	10,200	13,660	10,763	105.52%	78.79%
	Greenland Turbot	2,975	2,535	652	21.91%	25.71%
	Northern Rockfish	4,250	3,748	3,568	83.95%	95.20%
	Other flatfish	2,975	4,525	3,667	123.27%	81.04%
	Other Rockfish	893	452	254	28.49%	56.26%
	Other Species	24,650	27,005	6,124	24.84%	22.68%
	Pollock	1,347,760	1,334,531	29,711	2.20%	2.23%
	Rougheye Rockfish	190	85	75	39.32%	87.47%
	Sablefish	4,790	1,983	359	7.49%	18.09%
Shortraker Rockfish	507	161	40	7.83%	24.61%	
Squid	1,084	1,112	35	3.22%	3.14%	
Total	1,766,357	1,796,933	285,567	16.17%	15.89%	

2006	AI POP	9,520	11,053	11,005	115.60%	99.57%
	Atka Mackerel	53,550	57,471	56,110	104.78%	97.63%
	Flathead sole	16,575	17,568	13,705	82.69%	78.01%
	Pacific cod	161,302	178,219	29,351	18.20%	16.47%
	Rock sole	35,275	34,281	31,015	87.92%	90.47%
	Yellowfin sole	81,346	92,747	78,285	96.24%	84.41%
	Alaska Plaice	6,800	17,076	13,403	197.11%	78.49%
	Arrowtooth Flounder	11,050	12,699	9,147	82.77%	72.03%
	Greenland Turbot	2,329	1,943	267	11.45%	13.73%
	Northern Rockfish	3,825	3,423	3,282	85.79%	95.87%
	Other flatfish	2,975	2,991	2,206	74.16%	73.77%
	Other Rockfish	893	560	250	28.03%	44.72%
	Other Species	24,650	24,599	7,484	30.36%	30.42%
	Pollock	1,353,610	1,337,264	23,595	1.74%	1.76%
	Rougheye Rockfish	190	201	167	87.74%	83.14%
	Sablefish	4,765	1,702	101	2.11%	5.90%
	Shortraker Rockfish	493	199	67	13.65%	33.79%
Squid	1,084	1,321	14	1.27%	1.04%	
Total	1,770,232	1,795,315	279,454	15.79%	15.57%	
2007	AI POP	15,080	16,337	15,683	104.00%	96.00%
	Atka Mackerel	53,550	54,168	53,740	100.36%	99.21%
	Flathead sole	25,500	17,669	12,444	48.80%	70.43%
	Pacific cod	145,112	160,851	33,475	23.07%	20.81%
	Rock sole	46,750	33,097	30,905	66.11%	93.38%
	Yellowfin sole	115,600	110,948	87,984	76.11%	79.30%
	Alaska Plaice	21,250	18,587	14,739	69.36%	79.30%
	Arrowtooth Flounder	17,000	10,479	6,056	35.63%	57.79%
	Greenland Turbot	2,074	1,753	271	13.08%	15.48%
	Northern Rockfish	6,962	3,854	3,771	54.17%	97.86%
	Other flatfish	8,500	5,482	4,359	51.28%	79.51%
	Other Rockfish	849	564	300	35.32%	53.17%
	Other Species	31,752	23,477	9,646	30.38%	41.09%
	Pollock	1,271,510	1,216,105	20,925	1.65%	1.72%
	Rougheye Rockfish	172	155	116	67.38%	74.87%
	Sablefish	2,284	1,697	91	4.00%	5.38%
	Shortraker Rockfish	424	287	71	16.82%	24.87%
Squid	1,675	1,073	13	0.75%	1.17%	
Total	1,766,044	1,676,580	294,590	16.68%	17.57%	
Year	Species	Non-CDQ TAC (mt)	Total Catch (All vessels)	Amendment 80 (A80) Catch (mt)	A80 Catch as % of Non-CDQ TAC	A80 Catch as % of Total Catch
2003-2007 Average	AI POP	10,881	11,911	11,707	107.60%	98.29%
	Atka Mackerel	53,040	55,879	54,525	102.80%	97.58%
	Flathead sole	18,360	16,221	12,793	69.68%	78.87%
	Pacific cod	168,213	184,528	32,214	19.15%	17.46%
	Rock sole	37,910	37,241	34,265	90.39%	92.01%
	Yellowfin sole	83,676	86,986	75,529	90.26%	86.83%
	Alaska Plaice	42,010	12,799	10,942	26.05%	85.50%
	Arrowtooth Flounder	11,730	13,483	10,037	85.57%	74.44%
	Greenland Turbot	2,751	2,379	534	19.42%	22.46%
	Northern Rockfish	4,877	3,991	3,868	79.31%	96.92%
	Other flatfish	3,910	4,114	3,324	85.00%	80.80%
	Other Rockfish	984	585	321	32.62%	54.84%
	Other Species	26,328	25,339	7,634	29.00%	30.13%
	Pollock	1,332,835	1,312,229	27,241	2.04%	2.08%
	Rougheye Rockfish	180	162	129	72.01%	79.96%
	Sablefish	4,399	1,828	208	4.73%	11.39%
	Shortraker Rockfish	468	215	65	13.96%	30.34%
Squid	1,320	1,042	30	2.26%	2.86%	
Total	1,803,870	1,770,930	285,367	15.82%	16.11%	

Year	Species	Non-CDQ TAC (mt)	Total Catch (All vessels)	Amendment 80 (A80) Catch (mt)	A80 Catch as % of Non-CDQ TAC	A80 Catch as % of Total Catch
All A80 Vessels 2008	AI POP	15,628	15,232	14,852	95.03%	97.51%
	Atka Mackerel	54,205	51,762	50,906	93.91%	98.35%
	Flathead sole	44,650	24,040	19,068	42.71%	79.32%
	Pacific cod	152,453	153,007	15,752	10.33%	10.29%
	Rock sole	66,975	49,358	44,540	66.50%	90.24%
	Yellowfin sole	200,925	141,214	119,815	59.63%	84.85%
	Alaska Plaice	42,500	16,823	14,805	34.83%	88.00%
	Arrowtooth Flounder	63,750	20,951	17,267	27.09%	82.42%
	Greenland Turbot	2,159	2,562	1,694	78.44%	66.11%
	Northern Rockfish	6,953	2,946	2,785	40.05%	94.55%
	Other flatfish	18,360	3,448	2,822	15.37%	81.86%
	Other Rockfish	849	549	363	42.78%	66.16%
	Other Species	42,500	25,696	7,326	17.24%	28.51%
	Pollock	917,110	890,595	20,320	2.22%	2.28%
	Rougheye Rockfish	172	193	117	68.08%	60.67%
	Sablefish	4,213	1,613	231	5.49%	14.33%
	Shortraker Rockfish	360	144	70	19.31%	48.33%
Squid	1,675	1,496	82	4.89%	5.47%	
Total	1,635,437	1,401,627	332,815	20.35%	23.74%	

Year	Species	TAC (mt)	Total A80 Catch (All A80 vessels)	A80 Cooperative Catch (mt)	A80 Cooperative Catch as % TAC	A80 Cooperative Catch as % of Total A80 Catch
A80 Coop Vessels 2008	AI POP	15,628	14,852	7,056	45.15%	47.51%
	Atka Mackerel	54,205	50,906	21,436	39.55%	42.11%
	Flathead sole	44,650	19,068	16,933	37.92%	88.80%
	Pacific cod	152,453	15,752	13,518	8.87%	85.82%
	Rock sole	66,975	44,540	34,983	52.23%	78.54%
	Yellowfin sole	200,925	119,815	84,851	42.23%	70.82%
	Alaska Plaice	42,500	14,805	10,040	23.62%	67.81%
	Arrowtooth Flounder	63,750	17,267	16,474	25.84%	95.40%
	Greenland Turbot	2,159	1,694	1,637	75.82%	96.66%
	Northern Rockfish	6,953	2,785	1,236	17.78%	44.38%
	Other flatfish	18,360	2,822	2,540	13.83%	89.99%
	Other Rockfish	849	363	214	25.25%	59.03%
	Other Species	42,500	7,326	5,497	12.93%	75.03%
	Pollock	917,110	20,320	16,900	1.84%	83.17%
	Rougheye Rockfish	172	117	53	30.99%	45.52%
	Sablefish	4,213	231	216	5.12%	93.29%
	Shortraker Rockfish	360	70	49	13.50%	69.93%
Squid	1,675	82	77	4.58%	93.65%	
Total	1,635,437	332,815	233,707	14.29%	70.22%	

Year	Species	Non-CDQ TAC (mt)	Total A80 Catch (All A80 vessels)	A80 L. Access Catch (mt)	A80 L. Access Catch as % TAC	A80 L. Access Catch as % of Total A80 Catch
A80 L. Access Vessels 2008	AI POP	15,628	14,852	7,796	49.88%	52.49%
	Atka Mackerel	54,205	50,906	29,471	54.37%	57.89%
	Flathead sole	44,650	19,068	2,135	4.78%	11.20%
	Pacific cod	152,453	15,752	2,234	1.47%	14.18%
	Rock sole	66,975	44,540	9,557	14.27%	21.46%
	Yellowfin sole	200,925	119,815	34,965	17.40%	29.18%
	Alaska Plaice	42,500	14,805	4,765	11.21%	32.19%
	Arrowtooth Flounder	63,750	17,267	794	1.24%	4.60%
	Greenland Turbot	2,159	1,694	57	2.62%	3.34%
	Northern Rockfish	6,953	2,785	1,549	22.28%	55.62%
	Other flatfish	18,360	2,822	283	1.54%	10.01%
	Other Rockfish	849	363	149	17.53%	40.97%
	Other Species	42,500	7,326	1,829	4.30%	24.97%
	Pollock	917,110	20,320	3,420	0.37%	16.83%
	Rougheye Rockfish	172	117	64	37.09%	54.48%
	Sablefish	4,213	231	16	0.37%	6.71%
	Shortraker Rockfish	360	70	21	5.81%	30.07%
Squid	1,675	82	5	0.31%	6.35%	
Total	1,635,437	332,815	99,107	6.06%	29.78%	

Notes: Table 4 catch data do not include CDQ or State of Alaska Aleutian Islands Pacific cod fishery. Species allocated under the Amendment 80 Program are in bold. In 2003, Rougheye and Shortraker rockfish were assigned a combined TAC. The Average 2003-2007 TAC for Rougheye and Shortraker does not include 2003 data. TAC and catch data for AI POP exclude all Bering Sea POP. Catch of species that exceeded the TAC is noted in bold. Catch data for Amendment 80 vessels do not include catch received from other vessels for processing (i.e., no data from deliveries of “bags over the side” is included).

Table 5: PSC Use by Amendment 80 vessels: 2003-2008

Species	Year	Total PSC use by Amendment 80 vessels	Total groundfish catch by Amendment 80 vessels (mt)	PSC use per mt of groundfish caught	Percentage of average 2003-2007 PSC use
<i>PSC Species Allocated under Amendment 80 Program</i>					
Halibut (mt)	2003	2,649	268,249	0.009873	106.67%
	2004	2,800	298,999	0.009365	101.19%
	2005	2,698	285,567	0.009446	102.06%
	2006	2,541	279,454	0.009091	98.23%
	2007	2,519	294,590	0.008552	92.40%
	Ave. 2003-2007	2,641	285,367	0.009256	100.00%
	All A80	1,969	332,815	0.005917	63.93%
	A80 Coop	1,293	233,707	0.005533	59.78%
A80 L. Access	676	99,107	0.006821	73.70%	
Zone 1 C. <i>bairdi</i> (Number of animals)	2003	298,260	268,249	1.111877	152.18%
	2004	201,952	298,999	0.675427	92.44%
	2005	204,679	285,567	0.716746	98.10%
	2006	194,835	279,454	0.697199	95.42%
	2007	142,783	294,590	0.484684	66.34%
	Ave. 2003-2007	208,502	285,367	0.730644	100.00%
	All A80	141,418	332,815	0.424915	58.16%
	A80 Coop	106,683	233,707	0.456482	62.48%
A80 L. Access	34,735	99,107	0.350480	47.97%	
Zone 2 C. <i>bairdi</i> (Number of animals)	2003	575,585	268,249	2.145712	133.43%
	2004	367,327	298,999	1.228523	76.40%
	2005	430,732	285,567	1.508340	93.80%
	2006	502,716	279,454	1.798922	111.87%
	2007	418,098	294,590	1.419254	88.26%
	Ave. 2003-2007	458,892	285,367	1.608075	100.00%
	All A80	385,662	332,815	1.158788	72.06%
	A80 Coop	211,799	233,707	0.906259	56.36%
A80 L. Access	173,863	99,107	1.754296	109.09%	
Zone 1 <i>C.opilio</i> COBLZ (Number of Animals)	2003	584,362	268,249	2.178433	42.24%
	2004	1,710,702	298,999	5.721431	110.94%
	2005	3,109,441	285,567	10.888657	211.13%
	2006	818,705	279,454	2.929658	56.81%
	2007	1,135,312	294,590	3.853870	74.73%
	Ave. 2003-2007	1,471,704	285,367	5.157234	100.00%
	All A80	600,898	332,815	1.805502	35.01%
	A80 Coop	286,785	233,707	1.227113	23.79%
A80 L. Access	314,114	99,107	3.169443	61.46%	
Zone 1 Bristol Bay Red King Crab (Number of Animals)	2003	75,719	268,249	0.282272	101.01%
	2004	74,661	298,999	0.249703	89.35%
	2005	96,576	285,567	0.338191	121.02%
	2006	68,962	279,454	0.246775	88.30%
	2007	82,827	294,590	0.281159	100.61%
	Ave. 2003-2007	79,749	285,367	0.279461	100.00%
	All A80	78,358	332,815	0.235440	84.25%
	A80 Coop	48,931	233,707	0.209369	74.92%
A80 L. Access	29,427	99,107	0.296922	106.25%	

<i>PSC Species Not Allocated under Amendment 80 Program</i>					
Herring (mt)	2003	52	268,249	0.000193	89.52%
	2004	95	298,999	0.000316	146.80%
	2005	80	285,567	0.000280	130.12%
	2006	24	279,454	0.000086	39.89%
	2007	57	294,590	0.000193	89.87%
	Ave. 2003-2007	61	285,367	0.000215	100.00%
	2008	79	332,815	0.000236	109.83%
Non-Chinook Salmon (Number of animals)	2003	109	268,249	0.000408	4.08%
	2004	4,513	298,999	0.015092	150.92%
	2005	225	285,567	0.000789	7.89%
	2006	9,001	279,454	0.032210	322.10%
	2007	420	294,590	0.001425	14.25%
	Ave. 2003-2007	2,854	285,367	0.010000	100.00%
	2008	871	332,815	0.002617	26.17%

Notes: Table 5 data do not include CDQ or State of Alaska Aleutian Islands Pacific cod fishery. Data for Amendment 80 vessels do not include catch received from other vessels for processing.

Table 6: Percent of Amendment 80 Allocations Caught or Used by Amendment 80 Sector (2008 only)

Species	Initial TAC Allocation to Amendment 80 vessels (mt or No. of animals)	Total Catch or Use by Amendment 80 vessels (mt or No. of animals)	Percentage of Allocation Caught or Used (mt or No. of animals)
All Amendment 80 Vessels			
Groundfish (mt)			
Aleutian Islands POP (AI POP)	14,936	14,852	99.44%
Atka Mackerel	51,953	50,906	97.98%
Flathead sole	40,150	19,068	47.49%
Pacific cod	20,429	15,752	77.10%
Rock sole	61,975	44,540	71.87%
Yellowfin sole	160,413	119,815	74.69%
PSC			
Halibut (mt)	2,525	1,969	77.99%
Zone 1 <i>C. bairdi</i> (No. of animals)	460,674	141,418	30.70%
Zone 2 <i>C. bairdi</i> (No. of animals)	784,789	385,662	49.14%
Zone 1 <i>C. opilio</i> COBLZ (No. of Animals)	2,386,668	600,898	25.18%
Zone 1 Bristol Bay Red King Crab (No.of Animals)	104,427	78,358	75.04%
Amendment 80 Cooperative			
Groundfish (mt)			
Aleutian Islands POP (AI POP)	7,016	7,056	100.57%
Atka Mackerel	22,914	21,436	93.55%
Flathead sole	35,758	16,933	47.35%
Pacific cod	17,135	13,518	78.89%
Rock sole	47,003	34,983	74.43%
Yellowfin sole	98,982	84,851	85.72%
PSC			
Halibut (mt)	1,837	1,293	70.39%
Zone 1 <i>C. bairdi</i> (No. of animals)	340,520	106,683	31.33%
Zone 2 <i>C. bairdi</i> (No. of animals)	580,311	211,799	36.50%
Zone 1 <i>C. opilio</i> COBLZ (No. of Animals)	1,632,432	286,785	17.57%
Zone 1 Bristol Bay Red King Crab (No.of Animals)	78,631	48,931	62.23%
Amendment 80 Limited Access Fishery			
Groundfish (mt)			
Aleutian Islands POP (AI POP)	7,920	7,796	98.43%
Atka Mackerel	30,339	29,471	97.14%
Flathead sole	4,392	2,135	48.61%
Pacific cod	3,294	2,234	67.81%
Rock sole	14,972	9,557	63.83%
Yellowfin sole	61,431	34,965	56.92%
PSC			
Halibut (mt)	688	676	98.26%
Zone 1 <i>C. bairdi</i> (No. of animals)	120,154	34,735	28.91%
Zone 2 <i>C. bairdi</i> (No. of animals)	204,477	173,863	85.03%
Zone 1 <i>C. opilio</i> COBLZ (No. of Animals)	754,235	314,114	41.65%
Zone 1 Bristol Bay Red King Crab (No.of Animals)	31,284	29,427	94.06%

Notes: Table 6 catch data do not include CDQ or State of Alaska Aleutian Islands Pacific cod fishery. Catch data for Amendment 80 vessels do not include catch received from other vessels for processing. Zone 1 and Zone 2 *C. bairdi* PSC use are combined, but future analytical documents can display each zone separately. Aleutian Islands POP was not exceeded by the cooperative because catch includes reallocated catch from the BSAI trawl limited access sector through inseason action.

Table 7: Amendment 80 QS Allocations to the cooperative and limited access fishery (2008 only)

Species	Percent of QS pool assigned to A80 cooperative	TAC or PSC assigned to A80 cooperative	Percent of QS pool assigned to A80 limited access fishery	TAC or PSC assigned to A80 limited access fishery
Groundfish (mt)				
Aleutian Islands POP (AI POP)	46.98%	7,016	53.02%	7,919
Atka Mackerel	41.63%	21,611	58.37%	30,335
Flathead sole	89.06%	37,986	10.94%	4,665
Pacific cod	83.88%	17,135	16.12%	3,294
Rock sole	75.82%	49,279	24.18%	15,696
Yellowfin sole	60.22%	86,529	39.78%	57,168
PSC				
Halibut (mt)	72.75%	1,837	27.25%	688
Zone 1 <i>C. bairdi</i> (No. of animals)	73.94%	340,520	26.06%	31,284
Zone 2 <i>C. bairdi</i> (No. of animals)	73.92%	580,311	26.08%	754,235
Zone 1 <i>C. opilio</i> COBLZ (No. of Animals)	68.40%	1,632,432	31.60%	120,154
Zone 1 Bristol Bay Red King Crab (No.of Animals)	71.54%	580,311	28.46%	204,477

Notes: Table 7 does not display QS amounts for 2009 because this section of the analysis is comparing fishery performance in 2008 to performance during 2003-2007. Table 2 provides an overview of QS allocations in 2009.

Table 8: Total Groundfish Catch of Select Species by All Vessels and All Amendment 80 Vessels in the Western GOA (Area 610) from 2003-2008

Year	Species	TAC (mt)	Total Catch (All vessels)	Amendment 80 (A80) Catch (mt)	A80 Catch as % of TAC	A80 Catch as % of Total Catch
2003	Arrowtooth Flounder	8,000	8,211	7,818	97.72%	95.21%
	Flathead Sole	2,000	525	424	21.18%	80.65%
	Northern Rockfish	890	449	432	48.54%	96.15%
	Pacific cod	15,450	16,235	644	4.17%	3.96%
	Pelagic Shelf Rockfish (PSR)	510	226	211	41.41%	93.29%
	Pacific Ocean Perch (POP)	2,700	2,124	2,114	78.28%	99.51%
	Shallow water Rockfish	4,500	202	104	2.32%	51.61%
	Total	34,050	27,973	11,746	34.50%	41.99%
2004	Arrowtooth Flounder	8,000	9,518	2,565	32.06%	26.94%
	Flathead Sole	2,000	2,585	730	36.49%	28.23%
	Northern Rockfish	770	1,030	1,015	131.75%	98.49%
	Pacific cod	16,957	15,614	587	3.46%	3.76%
	Pelagic Shelf Rockfish (PSR)	370	285	244	65.95%	85.61%
	Pacific Ocean Perch (POP)	2,520	2,196	2,194	87.04%	99.89%
	Shallow water Rockfish	4,500	186	72	1.61%	38.79%
	Total	35,117	31,415	7,405	21.09%	23.57%
2005	Arrowtooth Flounder	8,000	2,545	2,077	25.97%	81.63%
	Flathead Sole	2,000	611	567	28.34%	92.72%
	Northern Rockfish	808	575	569	70.40%	99.01%
	Pacific cod	15,687	12,470	261	1.66%	2.09%
	Pelagic Shelf Rockfish (PSR)	377	121	106	28.09%	87.67%
	Pacific Ocean Perch (POP)	2,567	2,338	2,335	90.97%	99.89%
	Shallow water Rockfish	4,500	122	81	1.80%	66.15%
	Total	33,939	18,782	5,996	17.67%	31.92%
2006	Arrowtooth Flounder	8,000	2,042	1,369	17.11%	67.03%
	Flathead Sole	2,000	462	400	19.99%	86.48%
	Northern Rockfish	1,483	972	879	59.27%	90.39%
	Pacific cod	20,141	14,754	232	1.15%	1.57%
	Pelagic Shelf Rockfish (PSR)	1,438	558	524	36.44%	93.97%
	Pacific Ocean Perch (POP)	4,155	4,051	4,019	96.73%	99.22%
	Shallow water Rockfish	4,500	240	99	2.19%	41.12%
	Total	41,717	23,080	7,521	18.03%	32.59%
2007	Arrowtooth Flounder	8,000	3,147	2,507	31.34%	79.68%
	Flathead Sole	2,000	696	567	28.37%	81.50%
	Northern Rockfish	1,439	1,108	1,063	73.87%	95.95%
	Pacific cod	20,141	13,418	576	2.86%	4.29%
	Pelagic Shelf Rockfish (PSR)	1,466	595	571	38.92%	95.85%
	Pacific Ocean Perch (POP)	4,244	4,430	4,330	102.02%	97.74%
	Shallow water Rockfish	4,500	281	60	1.33%	21.24%
	Total	41,790	23,675	9,674	23.15%	40.86%

Ave. 2003-2007	Arrowtooth Flounder	8,000	5,093	3,267	40.84%	64.15%
	Flathead Sole	2,000	976	537	26.87%	55.07%
	Northern Rockfish	1,078	827	791	73.42%	95.72%
	Pacific cod	17,675	14,498	460	2.60%	3.17%
	Pelagic Shelf Rockfish (PSR)	832	357	331	39.79%	92.75%
	Pacific Ocean Perch (POP)	3,237	3,028	2,998	92.62%	99.03%
	Shallow water Rockfish	4,500	206	83	1.85%	40.30%
	Total	37,323	24,985	8,468	22.69%	33.89%
2008	Arrowtooth Flounder	8,000	3,175	2,074	25.93%	65.33%
	Flathead Sole	2,000	288	203	10.14%	70.36%
	Northern Rockfish	2,141	1,918	1,871	87.37%	97.52%
	Pacific cod	19,449	14,925	465	2.39%	3.11%
	Pelagic Shelf Rockfish (PSR)	1,003	577	565	56.34%	97.92%
	Pacific Ocean Perch (POP)	3,686	3,682	3,453	93.67%	93.77%
	Shallow water Rockfish	4,500	761	55	1.23%	7.26%
	Total	40,779	25,326	8,685	21.30%	34.29%

Table 9: Total Groundfish Catch of select species by All Vessels and All Amendment 80 Vessels from 2003-2008 Central GOA (Area 620 & 630)

Year	Species	TAC (mt)	Total Catch (All vessels)	Amendment 80 (A 80) Catch (mt)	A 80 Catch as % of TAC	A 80 Catch as % of Total Catch
2003	Arrowtooth Flounder	25,000	22,149	14,524	58.09%	65.57%
	Flathead Sole	5,000	1,934	650	13.00%	33.61%
	Pacific cod	22,690	24,869	1,568	6.91%	6.31%
	Shallow water Rockfish	13,000	4,442	54	0.42%	1.22%
	Total	65,690	53,395	16,796	25.57%	31.46%
2004	Arrowtooth Flounder	25,000	16,169	3,872	15.49%	23.95%
	Flathead Sole	5,000	2,473	262	5.24%	10.60%
	Pacific cod	27,116	27,421	832	3.07%	3.03%
	Shallow water Rockfish	13,000	3,010	278	2.14%	9.23%
	Total	70,116	49,073	5,243	7.48%	10.68%
2005	Arrowtooth Flounder	25,000	17,379	7,035	28.14%	40.48%
	Flathead Sole	5,000	1,941	607	12.15%	31.29%
	Pacific cod	25,086	22,751	877	3.50%	3.85%
	Shallow water Rockfish	13,000	4,676	347	2.67%	7.42%
	Total	68,086	46,747	8,867	13.02%	18.97%
2006	Arrowtooth Flounder	25,000	25,579	10,504	42.02%	41.06%
	Flathead Sole	5,000	2,679	734	14.69%	27.41%
	Pacific cod	28,405	23,171	1,029	3.62%	4.44%
	Shallow water Rockfish	13,000	7,411	279	2.15%	3.76%
	Total	71,405	58,839	12,546	17.57%	21.32%
2007	Arrowtooth Flounder	30,000	22,187	7,281	24.27%	32.82%
	Flathead Sole	5,000	2,467	518	10.37%	21.01%
	Pacific cod	28,405	26,213	640	2.25%	2.44%
	Shallow water Rockfish	13,000	8,511	35	0.27%	0.41%
	Total	76,405	59,377	8,474	11.09%	14.27%
Ave. 2003-2007	Arrowtooth Flounder	26,000	20,692	8,643	33.24%	41.77%
	Flathead Sole	5,000	2,299	554	11.09%	24.12%
	Pacific cod	26,340	24,885	989	3.75%	3.97%
	Shallow water Rockfish	13,000	5,610	199	1.53%	3.54%
	Total	70,340	53,486	10,385	14.76%	19.42%
2008	Arrowtooth Flounder	30,000	26,048	15,579	51.93%	59.81%
	Flathead Sole	5,000	3,135	1,427	28.53%	45.51%
	Pacific cod	28,426	27,747	1,107	3.89%	3.99%
	Shallow water Rockfish	13,000	8,922	37	0.29%	0.42%
	Total	76,426	65,852	18,150	23.75%	27.56%

Notes: Table 8 and 9 contain data from species that have been traditionally harvested by Amendment 80 vessels. Catch from the West Yakutat District (Area 640) are excluded for confidentiality. Data from some fisheries (e.g., rex sole, deep water flatfish) have been excluded for confidentiality. Catch data from Central GOA Rockfish fisheries are not included because those species are harvested under the Central GOA Rockfish Program and are not available to harvest to Amendment 80 vessels other than those qualified for that program.

**Table 10: Total Halibut PSC use by All Vessels and All Amendment 80 Vessels from 2003-2008
Central & Western GOA (Areas 610, 620 & 630)**

Management Area	Year	Total Halibut PSC use (All vessels)	Amendment 80 (A 80) Halibut PSC use (mt)	A 80 PSC as % of Total PSC use
Western GOA (Area 610)	2003	405.4	255.3	62.97%
	2004	594.2	176.3	29.67%
	2005	201.8	136.4	67.59%
	2006	258.3	90.4	35.00%
	2007	325.4	188.3	57.87%
	Ave. 2003-2007	357.02	169.34	47.43%
	2008	306.8	127.1	41.43%
Central GOA (Areas 620 & 630)	2003	1954.8	589.9	30.18%
	2004	2498.4	590.4	23.63%
	2005	2111.6	427.1	20.23%
	2006	2057	467.3	22.72%
	2007	1906.6	245.1	12.86%
	Ave. 2003-2007	2105.68	463.96	22.03%
	2008	2043.7	333.4	16.31%

Notes: Table 10 displays PSC data from all fisheries in the Central and Western GOA, including fisheries not included in Tables 7 and 8, and including PSC data from the Central GOA Rockfish Program fisheries. Confidentiality requirements may limit the ability for NMFS to release data on PSC use that is more narrowly defined to specific target fisheries. Additional versions of this document will provide additional detail if possible.

2.3.7.3 Trends and Factors in Amendment 80 Fishery Performance

Although conclusions based on one year of data (2008), when compared to historic fishery patterns (2003-2007), should be considered tenuous and may not reflect future fishery performance, these data suggest several conditions may exist. Because data from 2009 is not complete at the time of initial review, fishery performance trends are not addressed in this section. During the final review of this analysis, the 2009 data will be complete and additional analysis will be provided.

First, according to Table 3, in each year from 2003 through 2007, the Amendment 80 fleet exceeded the TAC for either the Aleutian Islands POP fishery or the Atka mackerel fishery. With the implementation of Amendment 80, neither TAC was exceeded. The ability to consistently harvest less than the TAC is typically observed under LAPP management. It is notable that the Amendment 80 fleet did not exceed TAC, even though a substantial portion of the total Amendment 80 ITAC was harvested by vessels under the limited access fishery (see Table 7). This suggests that the limited number of participants in the limited access fishery faced less competition. This may have reduced the incentive to race for fish to some degree and improved the ability of NMFS to maintain the fishery catch below TAC. As an example, NMFS inseason staff

noted improved communication with the limited access fishery participants, when coordinating fishery closures, which facilitated more timely fishery closures.³¹

Second, the Amendment 80 sector harvested a substantially greater portion of the BSAI TAC and total catch in 2008, than in any previous year, roughly 54,000 metric tons, or 19 percent more groundfish than the 2003-2007 average (see Table 4). Some of this increased catch is due to the sharp increases in yellowfin sole, rock sole, and flathead sole TAC in 2008, relative to previous years, providing additional harvest opportunities to the fleet. The Amendment 80 fleet increased its total groundfish harvest without apparently being constrained by its Pacific cod or PSC allocations, in particular halibut PSC (see Table 5). Prior to the start of fishing, several Amendment 80 participants expressed concern that the allocations of Pacific cod and halibut PSC may not be sufficient to support a directed Pacific cod fishery, and may constrain fishing operations for other Amendment 80 species generally. BUC cooperative representatives noted that the cooperative strictly limited Pacific cod catch, particularly operations specifically targeting Pacific cod.³² Due to the limited Pacific cod ITAC assigned to the limited access fishery, NMFS did not open Pacific cod for directed fishing in that fishery.

Second, although a substantial percentage of the Amendment 80 allocation of flathead sole, rock sole, yellowfin sole was unharvested in 2008, when compared to the amount of catch harvested by Amendment 80 vessels in previous years, the fleet caught substantially more of these species. Data from Table 4 notes that in 2008, the Amendment 80 fleet caught 49 percent, 30 percent, and 62 percent more metric tons of flathead sole, rock sole, and yellowfin sole, respectively, compared to average catch during 2003-2007. A cooperative representative noted that market conditions and other economic considerations made by individual companies in the cooperative and limited access fishery may have also affected decisions to harvest catch. Icing conditions during the period when flathead sole is traditionally harvested may have been a factor as well. Harvesters may have curtailed harvests in response to more limited demand from customers who may not have been able to access credit easily under current global economic conditions.³³ Finally, as noted earlier, the transition from race for fish to LAPP management can be complicated. The fleet may need additional time to adapt to the changing conditions that such a management system imposes.

Third, even though a substantial portion of the Amendment 80 fleet was not under cooperative management (see Table 6), the fleet dramatically reduced its PSC use both in total amount and in terms of use rates when compared to historic use during 2003 through 2007 (Table 5), and when compared to the total allocation available (Table 6). These data provide perhaps the best evidence that LAPP management can quickly and dramatically change fishery behavior, potentially even among those participants in the smaller race for fish limited access fishery. Nevertheless, a greater percentage of the total halibut and red king crab PSC allocated to the limited access fishery were used relative to the cooperative (Table 6). The species targeted by the limited access fishery differ from the cooperative with an overall greater focus on Atka mackerel and Aleutian Islands Pacific ocean perch, which could also account for some of the different PSC use rates observed in 2008 (Table 7). These data may suggest that PSC limits, and the

³¹ Steve Whitney, NMFS Inseason staff, Personal communication.

³² Jason Anderson, BUC Manager, Personal Communication.

³³ Bill Orr, BUC President, Personal Communication.

management of those PSC limits, in the limited access fishery may not constrain fishing operations. Under the limited access fishery, NMFS will close a specific target fishery for a species or complex, once the PSC limit has been reached, rather than all fishing. This reduces the incentive for harvesters to carefully monitor PSC use overall, when compared to cooperative management because the overall effect of reaching a PSC cap is less constraining on multi-species operations.

Although general climactic conditions may be a factor in halibut abundance in a given area during a period of time, the Amendment 80 fleet did undertake a number of measures to reduce PSC use. For example, the cooperative and the participants in the limited access fishery expanded contracted with SeaState Inc. to provide company specific haul-by-haul data, and the cooperative received aggregate halibut PSC rates for the cooperative. These data aided the companies as they considered where to direct their vessels in order to minimize bycatch and maximize catch.³⁴

In addition, a cooperative representative noted that the fleet reduced fishing at night. Fishing at night can result in higher halibut PSC rates per metric ton of groundfish. Cooperative representatives also noted generally improved coordination among the members of the cooperative and the expanded use of halibut excluder devices. Cooperative representatives cited the ability to move to areas with lower bycatch, without the fear of losing fishing time typical of a race for fish, as the most important factor contributing for lower PSC rates.³⁵

Participants in the limited access fishery did not expand the use of halibut excluder devices or otherwise coordinate extensively. Representatives from FCA, one of the two companies active in the limited access fishery in 2008, noted that the only other vessel fishing in the limited access fishery in 2008, did not have an LLP license permitting that vessel to fish in the Aleutian Islands. During periods of high halibut PSC rates in the yellowfin sole fishery, FCA vessels were able to shift effort to Aleutian Islands Atka mackerel and AI POP, which typically have lower halibut PSC bycatch rates. Because FCA did not face competition in these fisheries, FCA was able to operate in a manner that did not require a race for fish. However, this situation is unique to the specific vessels and LLP licenses assigned to the limited access fishery during 2008 and those conditions may not exist in the future. Due to these unique conditions in the limited access fishery, FCA representatives also chose to suspend operations for yellowfin sole for most of May, due to poor quality, low catch per unit effort, and high halibut PSC rates relative to other periods of the year. FCA vessels that were active in the yellowfin sole fishery shifted into other fisheries, such as the Central GOA Rockfish Program, and shifted back to the yellowfin sole fishery once product quality and halibut PSC rates improved.³⁶

Fourth, assessing the effects of Amendment 80 on fishing behavior in the GOA is complicated by the recent implementation of the Central GOA Rockfish Program. Of the 28 originally qualifying Amendment 80 vessels and Amendment 80 LLP licenses, 12 of those vessels and LLP licenses are eligible to participate in the Central GOA Rockfish Program. The Central GOA Rockfish Program allocated Rockfish QS to LLP holders

³⁴ See BUC 2008 Cooperative Report for additional discussion on the reporting techniques used by cooperative managers to monitor fleet operations.

³⁵ Bill Orr, BUC President & Jason Anderson, Personal Communication.

³⁶ Mike Szymanski & Bill McGill, teleconference, and personal communication.

based on landings of primary rockfish species (northern rockfish, pelagic shelf rockfish, and Pacific ocean perch) attributed to that LLP license. On an annual basis, participants may decide to join a Rockfish cooperative and receive Rockfish CQ based on the sum of the rockfish QS of the LLPs assigned to the cooperative by its members. LLP holders can receive an exclusive harvest privilege on an annual basis only by joining a cooperative. LLP holders with QS based on harvesting and processing rockfish onboard a catcher/processor (C/P) can only form cooperatives with other C/P LLP holders. LLP holders with QS based on rockfish harvested on a catcher vessel (CV) designation can only form cooperatives with other CV LLP holders. Alternatively, LLP holders can choose to fish in a limited access fishery within that sector (C/P or CV). The limited access fishery comprises the annual catch amount for the Program that is left after C/P or CV cooperatives form. Finally, LLP holders in the C/P sector can choose to “opt-out” of most of the aspects of the Program. Only LLP licenses and vessels assigned to a Central GOA Rockfish cooperative or limited access fishery may directed fish for northern rockfish, pelagic shelf rockfish, and Pacific ocean perch in the Central GOA. In addition, the Central GOA Rockfish Program allocates a small portion of the Central GOA TAC of sablefish, thornyhead rockfish, roughey rockfish, and shortraker rockfish as CQ to participants in a C/P cooperative. Participants in the Rockfish limited access fishery are subject to a reduced maximum retainable allowance (MRA) for these species when they are directed fishing for northern rockfish, pelagic shelf rockfish, and Pacific ocean perch in the Central GOA.

The Central GOA Rockfish Program also imposes a series of sideboard limits on all Rockfish QS holders that limits the amount of Western GOA and West Yakutat northern rockfish, pelagic shelf rockfish, and Pacific ocean perch that vessels may harvest in July. Additionally, catcher/processors are subject to limits on the amount of halibut PSC that they may use in the month of July. These halibut PSC limits are further subdivided by target categories for deep water (e.g., Pacific cod) and shallow water species (e.g., flathead sole). Finally, C/Ps in a cooperative are assigned specific Western GOA and West Yakutat groundfish and deep and shallow water halibut PSC sideboards applicable to that cooperative. C/Ps participating in the Central GOA Rockfish limited access or opt-out fishery are subject to sideboard limits that are a proportion of the sideboard limits that remain after cooperative sideboard limits have been determined.

Under the Amendment 80 Program, Amendment 80 vessels fishing in the GOA are subject to similar Western GOA and West Yakutat northern rockfish, pelagic shelf rockfish, and Pacific ocean perch sideboard limits, as well as limits on Pacific cod and pollock (with one exception for the F/V *Golden Fleece* which is prohibited from directed fishing for rockfish, Pacific cod, or pollock). The Amendment 80 Program also imposes deep and shallow water halibut PSC sideboards, but applies them on a seasonal basis (This restriction does not apply to the F/V *Golden Fleece*). In addition, only a specific list of vessels may participate in the directed flatfish fisheries in the GOA. Table 11 summarizes the sideboard limits applicable under both of these LAPPs.

Table 11: GOA Sideboard limits under Central GOA Rockfish Program and Amendment 80 Program			
Management Area	Species	LAPP	Sideboard limit
Western GOA (Area 610)	Northern rockfish (NR), pelagic shelf rockfish (PSR), and Pacific ocean perch (POP)	Amendment 80	NR = 100 % of TAC PSR = 76.4 % of TAC POP = 99.4 % of TAC
		Central GOA Rockfish Program	NR = 78.9% of TAC PSR = 63.3% of TAC POP = 76.0% of TAC
	Pacific cod, and Pollock	Amendment 80	Pacific cod = 2.0 % of TAC Pollock = 0.3 % of TAC
Central GOA (Area 620 & 630)	Pacific cod, and Pollock	Amendment 80	Pacific cod = 4.4 % of TAC Pollock (Area 620) = 0.2 % of TAC Pollock (Area 630) = 0.2 % of TAC
West Yakutat (Area 640)	NR, PSR, POP	Amendment 80	PSR = 89.6 % of TAC POP = 96.1 % of TAC
		Central GOA Rockfish Program	PSR = 72.4% of TAC POP = 76.0% of TAC
	Pacific cod, and Pollock	Amendment 80	Pacific cod = 3.4 % of TAC Pollock = 0.2 % of TAC
All GOA	Shallow water Halibut PSC species	Amendment 80	Season 1 = 0.48 % of PSC limit Season 2 = 1.89 % of PSC limit Season 3 = 1.46 % of PSC limit Season 4 = 0.74 % of PSC limit Season 5 = 2.27 % of PSC limit
		Central GOA Rockfish Program	(Season 3) = 0.54 % of PSC limit
	Deep water Halibut PSC species	Amendment 80	Season 1 = 1.15 % of PSC limit Season 2 = 10.72 % of PSC limit Season 3 = 5.21 % of PSC limit Season 4 = 0.14 % of PSC limit Season 5 = 3.71 % of PSC limit
		Central GOA Rockfish Program	(Season 3) = 3.99 % of PSC limit
Additional Vessel specific sideboard restrictions			
All GOA for F/V <i>Golden Fleece</i>	N/A	Amendment 80	<i>F/V Golden Fleece</i> is prohibited from directed fishing Western GOA and West Yakutat rockfish, All GOA Pacific cod and pollock. Vessel is not subject to Amendment 80 halibut PSC sideboard limits.
All GOA for directed flatfish			Only the 11 Amendment 80 vessels listed in Table 39 to part 679 may directed fish for flatfish in the GOA.

Notes: Central GOA Rockfish Program sideboard limits in Table 11 apply only from July 1-31. Each cooperative receives a specific sideboard limit that is a suballocation of this total limit. All Rockfish limited access and opt-out fishery vessels are subject to the sideboard limit remaining after allocation to Rockfish Cooperatives. Rockfish halibut PSC sideboard limits in July correspond to Season 3. Halibut PSC season dates are defined in the annual GOA harvest specifications. Deep water halibut PSC species include directed fishing for: arrowtooth flounder, deep-water flatfish, and rex sole. Shallow water halibut PSC species include directed fishing for: flathead sole, Pacific cod, pollock, shallow-water flatfish, and other species.

Because of the complex interrelationship of the Central GOA Rockfish Program allocations, Amendment 80 sideboard limits in the GOA, and Central GOA Program sideboard limits in the GOA for non-Central GOA Rockfish fisheries, it is difficult to discern if fishing patterns in the GOA in 2008 are primarily due to Amendment 80, the Central GOA Rockfish Program, a combination of both LAPPs, or other factors. A more complete description of the complicated catch accounting and management arrangements that may exist between the Amendment 80 and Central GOA Rockfish Program is found in the EA/RIR/IRFA prepared to relieve sideboard measures applicable to catcher/processors eligible to participate in Central GOA Rockfish Program and the BSAI.³⁷

Although vessels fishing in cooperatives in the BSAI could expand their efforts in the GOA, the potential effect on fishing practices in the GOA from these cooperatives would probably be limited to shifts in harvest patterns among Amendment 80 vessels active in the Western GOA and West Yakutat Rockfish fisheries, but not necessarily changes in the total amount of catch taken in those fisheries or the specific vessels active in those fisheries. This conclusion is supported by the following factors.

First, increased effort in the Central GOA rockfish fisheries by Amendment 80 vessels is prevented by the Central GOA Rockfish Program.

Second, based on data in Table 8, historically almost all of the Western GOA TAC has been caught almost exclusively by Amendment 80 vessels and the sideboard applicable to those rockfish fisheries in the Western GOA and West Yakutat District are not constraining (see Table 11). In 2008, Amendment 80 vessels caught roughly the same amount of Western GOA Rockfish as they had historically. However, NMFS staff noted that harvest rates of Western GOA rockfish fisheries were higher in 2008 than in previous years suggesting that the participation patterns of vessels may have shifted.³⁸ Prior to Amendment 80, GOA and BSAI rockfish fisheries opened on July 1, forcing vessel operators to make operational choices to ensure that they had adequate fishing opportunities in these management areas. It is possible that the implementation of the Central GOA Rockfish Program and the Amendment 80 Program will allow vessels in an Amendment 80 cooperative to avoid a race for fish in the Western GOA or West Yakutat District and begin fishing earlier or later than July 1 in those fisheries. Vessels that had previously chosen to leave the Western GOA earlier in July to ensure they had adequate opportunity in the BSAI, or that did not fish extensively in the Western GOA, may have additional incentive to fish in the Western GOA in a race for fish before or after fishing for under a cooperative. A similar pattern of incentives could exist in the West Yakutat District, but those data cannot be released due to confidentiality restrictions.

Third, increased effort in GOA flatfish fisheries is unlikely, because the Amendment 80 Program limits the number of Amendment 80 vessels that can fish in the GOA directed flatfish fisheries to 11 vessels.³⁹ Although it is possible that participation in an Amendment 80 cooperative could allow those vessels to enter the GOA if they were

³⁷ This document is available through the Council's website at:
http://www.fakr.noaa.gov/npfmc/analyses/RPP_cpJulystandown508.pdf

³⁸ Steve Whitney, NMFS Inseason staff, personal communication.

³⁹ See Table 39 to part 679 for a list of the eligible Amendment 80 vessels at:
<http://www.fakr.noaa.gov/rr/tables/tab139.pdf>

not constrained by a race for fish in the BSAI, data from Tables 8 and 10 do not indicate a substantial increase of flatfish harvests in 2008, relative to the average harvests during 2003 through 2007. In addition, all the Amendment 80 vessels eligible to directed fish for flatfish in the GOA were assigned to the Amendment 80 cooperative in 2008 and 2009, with one exception (i.e., *F/V Ocean Alaska*). This would suggest that any effect of Amendment 80 cooperatives on GOA flatfish patterns should have been observed, assuming other factors such as the need to use vessels to harvest the relatively large BSAI TAC of flatfish species in 2008, has not diverted effort that could have been used in the GOA. However, it does not appear that vessel participation in the GOA flatfish fisheries by Amendment 80 vessels changed dramatically in 2008. The number of Amendment 80 vessels eligible to directed fish for flatfish in the GOA that have participated has been constant in recent years (Table 12). NMFS Inseason staff indicate that the specific Amendment 80 vessels historically active in the GOA directed flatfish fisheries in 2008 and 2009 were consistently active in prior years as well.⁴⁰

Table 12. Number of Amendment 80 vessels eligible to directed flatfish in the GOA that did directed fish for flatfish 2003-2009							
Year	2003	2004	2005	2006	2007	2008	2009
Number of vessels	11	7	7	7	9	6	6

2.3.8 Cooperative Formation Standards and Decisions to Join a Cooperative

Three broad factors are likely to affect the choice of participants to join a cooperative: (1) the appeal of the “outside” option of the limited access fishery; (2) the nature of the cooperative model chosen; and (3) the specific circumstance of the participant and the circumstances in the fisheries.

2.3.8.1 Potential Benefits of Cooperative vs. Limited Access Fishery

As noted earlier, the advantages of joining a cooperative arise from receiving an exclusive allocation and ending the race for fish. In addition, fishery participants in cooperatives are permitted to pool groundfish retention with application of the GRS rates at the cooperative, rather than at the individual vessel level. Depending on the structure of the cooperative, harvesters may consolidate operations and integrate their fishing operations to improve revenues and reduce costs. Depending on the circumstances, the “outside” option of fishing in the limited access fishery may not be significantly less attractive to a specific fishery participant. For example, if a vessel faces extremely limited or no competition in the limited access fishery, no race for fish may occur. Alternatively, a vessel with high catch rates may have an opportunity to harvest a greater amount of fish in the limited access fishery than would likely result from the QS they would bring to a cooperative if it can successfully compete with other vessels in the limited access fishery for access to that catch. In both of these examples, if the vessel operator is able to meet GRS compliance requirements in the limited access fishery with little complication, those requirements may not affect the decision to join a cooperative.

In some circumstances, a small vessel operator with limited QS holding may have an advantage from foregoing cooperative membership, if the vessel can “fish into” the

⁴⁰ Steve Whitney and Josh Keaton, NMFS Inseason staff, Pers. Comm.

amount of ITAC assigned to the limited access fishery by other participants. This choice, however, will depend on whether the vessel believes that GRS compliance is achievable in the limited access fishery. As noted in Table 2, one owner is active in both the cooperative and the limited access fishery. This may provide the best evidence that vessel owners can perceive a greater benefit in participation in the limited access fishery than fishing under a cooperative.

Conversely, larger vessel owners with larger QS allocations may find the limited access option substantially less attractive if there is considerable risk that competition from other vessels will reduce their catch in the limited access fishery. In any case, the choice to participate in the limited access fishery involves some risk, since participants must choose whether to join a cooperative or fish the limited access at the same time each year. So, by reducing risk and provide some assurance of catch, a cooperative provides more certain benefits.

From a management perspective, cooperative management offers several clear benefits relative to limited access fisheries. First, under limited access fishery management NMFS retains responsibility for actively opening and closing fisheries. Depending on the nature of the fishery, the timeliness of data reporting, and the relationship between actual and projected catch rates, overages are more likely to occur. Cooperatives face potential enforcement action for violations and have established effective means to communicate catch data to avoid these potential penalties. Overages that exceed TAC, or potentially ABC, undermine the conservation goals of the agency. Although data from 2008 may not be indicative of future fishing patterns, the limited access fishery used a greater proportion of its available allocation of some PSC species than the cooperative, suggesting that increased opportunities for cooperative formation could further reduce bycatch rates. As noted earlier in Section 2.3.3.3 of this analysis, the costs of limited access management is typically substantially higher than under cooperative management.

2.3.8.2 Cooperative Models

Some participants may find cooperative membership more or less attractive, depending on the degree to which the cooperative regulates the fishing activities of its members. Based on anecdotal information from other cooperative management programs (i.e., AFA, Central GOA Rockfish, and cooperatives in the BSAI crab rationalization program) there appear to be two distinct types of cooperative operations, “pass through cooperatives” and “integrated cooperatives” with a continuum between these extremes. Table 13 summarizes the ways in which these two basic models differ.

Table 13: Pass Through vs. Integrated Cooperative		
Factor	Pass Through Cooperative	Integrated Cooperative
Coordination of Fishing Operations	<ul style="list-style-type: none"> • Members responsible for fishing allocation derived from their QS. • Limited coordination of fishing practices. • Cooperative managers provided limited catch information from other members. • Cooperative members do not establish buffers for the entire cooperative. Each member is effectively assigned a “hard cap” to limit catch. 	<ul style="list-style-type: none"> • Fishing plan among members negotiated pre-season and modified during the season as necessary. • Members coordinate vessels in fisheries and areas to minimizing bycatch and maximize profit (not based on past participation or QS holdings). • Cooperative members have access to detailed catch and PSC rates of other cooperative members. • Fishing vessels used and the amount harvested are not necessarily related to the amount of QS member assigns to the cooperative. • A buffer is established for the entire cooperative to ensure CQ amounts are not exceeded.
Distribution of Costs	<ul style="list-style-type: none"> • Operational costs fully borne by each participant. 	<ul style="list-style-type: none"> • Insurance costs pooled. • Observer coverage requirements negotiated for all vessels under a single contract. • Cooperative pays for fuel, labor, and other costs and those costs are split proportionally according to the cooperative contract.
Distribution of Revenues	<ul style="list-style-type: none"> • Revenue not pooled. Each member receives value from the fish harvested on his vessels. 	<ul style="list-style-type: none"> • Common marketing of cooperative product. • Pooling net crew revenue among all vessel operators and crew proportional to total catch.

In the first two years of the program, BUC adopted a pass through cooperative with specific provisions to address PSC rates and the management of GOA sideboard limits. The cooperative establishes target PSC rates and informs members of cooperative PSC rates in-season. Each company is responsible for managing the amount of PSC that would be derived from its QS, effectively acting as a limit for that vessel owner. If an owner reaches his assigned limit of Amendment 80 species CQ or PSC CQ, the owner may establish intra-cooperative trades for additional CQ with other cooperative members or stop fishing. In addition, BUC has established a “pass through” GRS compliance requirement, so that each company operating in the cooperative has an obligation to meet the GRS, or potentially face contractual penalties. No such penalties were assessed in 2008.⁴¹ BUC members have also established a private agreement to apportion the Amendment 80 GOA sideboard limit among members, as a means of effectively managing the sideboard limit. This agreement does not include participants in the limited access fishery and actions taken by the participants in the limited access fishery to fish

⁴¹ See BUC 2008 Cooperative Report.

more than their traditional amounts of GOA sideboard fisheries could affect this private contractual arrangement.⁴²

Several industry participants in BUC have indicated that they believe that with time a more integrated cooperative structure may develop as: (1) familiarity with the program grows; (2) GRS compliance becomes more challenging; (3) changes in market conditions and operational costs present challenges and opportunities; (4) TACs change; or (5) greater consolidation of vessel ownership occurs.

2.3.8.3 Factors affecting cooperative membership

Although not exhaustive, some of the factors harvesters are likely to consider when forming a cooperative are described below.

2.3.8.3.1 Historic relationships among participants:

Participants may have long standing relationships and alliances among owners and crew that facilitate cooperative relationships. Participants with similar approaches to marketing, fishing patterns, and operational styles may be easier to coordinate. Conversely, companies with a history of disagreement or distrust may be unwilling or unable to effectively compromise and meet the obligations necessary to implement cooperative management.

Given the complex nature of the program and the need to coordinate catch and PSC mortality, as well as ensure compliance with GRS requirements (and possibly harvests under GOA sideboards), establishing effective working relationships among the members of a cooperative is critical.

2.3.8.3.2 Common economic interests

Presumably companies able to develop economic synergies could find it advantageous to establish and maintain cooperative relationships. The importance of aligned economic interests would likely vary, depending on the type of cooperative and participants' operations and markets. As an example, under a pass through cooperative model where each member of the cooperative is responsible for harvesting its own quota and PSC use, little consideration may be given to coordination of operational and marketing activities. In a more integrated cooperative model, participants may wish to have members able to coordinate the development of economic benefits from the cooperative.⁴³

2.3.8.3.3 QS holdings

Presumably, prospective cooperative members with greater or more complementary QS holdings would be more attractive as cooperative members because they could provide more useful CQ to the cooperative, increasing flexibility for the cooperative to ensure that its catch is efficiently harvested. Larger QS holders may be most desirable under an integrated cooperative model where the relative cost per unit of effort decreases as quota increases. Likewise, QS holders with allocations of relatively

⁴² Personal communication, Jason Anderson, BUC Manager.

⁴³ In all cases, participants will need to ensure that any market cooperation is permitted by antitrust law, which may include the development of a Fishermen's Collective Marketing Act. This paper does not examine compliance of activities with those requirements.

scarce or high demand species (including PSC) may be particularly desirable. Even under a pass through cooperative model, harvesters with these QS holdings could contribute to a buffer to ensure the cooperative stays below its CQ allocation.

2.3.8.3.4 GRS compliance

Larger vessels may be better suited to meet GRS requirements due to the greater amount of space available onboard to accommodate increased storage capacity required for the larger proportion of groundfish that will need to be retained as the GRS is increased. In addition, it may be possible that some of the largest Amendment 80 vessels could improve their retention of groundfish through the use of fish meal plants that are not feasible on smaller vessels. Generally, larger vessels would be more likely to have lower operational costs when retaining products than smaller vessels that would be required to make more frequent offloads. All Amendment 80 vessels may have difficulty finding markets for some groundfish species that may be required to be retained in greater proportions as the GRS is increased (e.g., Alaska plaice, northern rockfish, and arrowtooth flounder).

Members who primarily target species that can be harvested with lower incidental catch rates of other less valuable species may be desirable members of the cooperative because the retention rate of those vessels would be expected to be high, increasing the overall retention rate of the cooperative. Vessels targeting species with a higher incidence of species that are less economically desirable may decrease net returns of the cooperative, as a whole, particularly under an integrated cooperative model, or may decrease overall retention by the cooperative. One would anticipate that such members may be less desirable as members of the cooperative, particularly if meeting GRS requirements becomes a concern.

The changes in operations to meet GRS requirements may increase operational costs at a proportionally greater rate for smaller vessels, and encourage smaller vessel owners to enter into and maintain cooperative membership with members that own larger vessels that may be better able to meet the GRS requirements. Owners of a single relatively small vessel particularly would be expected to desire a cooperative relationship, if they perceive GRS compliance as difficult or costly, and alternative fishing opportunities in the GOA (without the complication of GRS compliance) are not available. If smaller vessels are perceived as less able to meet the GRS, or are expected to adversely affect the ability of the cooperative to meet its GRS because they have a low retention rate, these factors could adversely affect their negotiating leverage, particularly if other larger vessels can form and maintain cooperative participation without the smaller vessels.

Based on a review of 2008 data, it appears that all vessels in the limited access fishery and the cooperative met the GRS requirements independently. However, it is possible that a number of vessels that met the GRS requirements in 2008 may face additional challenges as the GRS is increased. Table 13 provides an overview of the fishery performance in 2008. Although fishery performance in 2008 may not be indicative of future retention rates, it appears that very few, and possibly none, of the vessels could achieve an 85 percent retention rate assuming current practices continue. Table 14 provides an overview of GRS retention by vessels that are less than 145' LOA, from 145' to 200' LOA, and vessels greater than 200' LOA. These categories are

consistent with the discussion of retention rates by vessel size in Section 2.3.2. In addition, Table 15 provides retention rate by the BUC and the limited access fishery for 2008. Note that this table includes data from fisheries other than the Amendment 80 allocated species and therefore differs from retention data presented in BUC's 2008 cooperative report, which includes retention only for Amendment 80 species. Retention data from the limited access fishery are likely to underestimate total retention by the limited access fishery due to extrapolations of catch and retention from the *F/V Alaska Ranger*. Table 16 provides total retention by vessel size class. Table 17 provides an overview of retention rates by species category by quintiles or all of the Amendment 80 species and most non-Amendment 80 species. The table does not provide specific retention rates for sablefish, rougheye rockfish, and shorttraker rockfish to avoid the potential release of confidential data. Overall, those three species comprise a small proportion of total groundfish harvest and retention. Retention rates from 2009 are not included because complete data are not available.

	Groundfish Retention Rate			
	Less than 70%	70 – 75 %	75- 80%	Greater than 80%
Number of vessels	4	7	7	4
Total Catch (mt)	24,690	102,870	122,356	82,898
Retained Catch (mt)	16,424	74,481	93,224	68,984
Discarded Catch	7,780	28,389	29,132	13,914
Retention Rate	65.38%	72.40%	76.19%	83.22%
Total Catch (All vessels)	332,815			
Retained Catch (All vessels)	252,834			
Percent Retained (All vessels)	75.97%			

	BUC (Cooperative)	Limited Access
Number of vessels	16	7
Total Catch (mt)	233,707	99,107
Retained Catch (mt)	178,840	74,160
Discarded Catch	54,867	24,947
Retention Rate	76.52%	74.83%

	Less than 145' LOA	145' to 200' LOA	Greater than 200' LOA
Number of vessels	12	8	9
Total Catch (mt)	81,219	96,849	154,747
Retained Catch (mt)	57,104	74,660	121,069
Discarded Catch	24,115	22,189	33,698
Retention Rate	70.03%	77.09%	78.24%

Vessel Size Classes	Groundfish Retention Rate by Species				
	Under 50%	50 to 70%	70 to 80%	80 to 90%	Greater than 90%
Under 145' LOA	Alaska plaice, Northern rockfish, Other flatfish, Pacific ocean perch , Other rockfish, Other species, squid	Arrowtooth, Pollock, Rock sole	Yellowfin Sole , Flathead sole , Greenland Turbot	Atka Mackerel	Pacific cod
145' to 200' LOA	Alaska plaice, Arrowtooth flounder, Other flatfish, Northern rockfish, Other species, squid	Greenland turbot, Other rockfish	Pollock, Pacific ocean perch , Rock sole	Flathead sole , Yellowfin sole	Atka mackerel , Pacific cod
Over 200' LOA	Alaska plaice, Other flatfish, Northern rockfish, Other species	Greenland turbot, Other rockfish, Rock sole	Flathead sole , Pollock, Yellowfin sole	Atka mackerel , Arrowtooth flounder ,	Pacific ocean perch , Pacific cod

Tables 14 through 17 support the general assertions that larger vessels tend to have higher retention rates than smaller vessels, and that some species (e.g., Atka mackerel, and Pacific cod) have consistently high retention rates relative to other species (e.g., Alaska plaice, Northern rockfish). The retention rates in the cooperative and limited access fishery are similar, however, data from the *F/V Alaska Ranger* may not accurately reflect species groundfish retention by that vessel prior to its loss at sea.

An additional factor that may enter into the consideration of a vessel's ability to meet the GRS is the ongoing review of the Alternative Compliance and Safety Agreements (ACSA) by the United States Coast Guard (USCG). USCG developed the ACSA in 2006 in coordination with the Amendment 80 sector and several catcher/processors that use longline gear to fish for Pacific cod. Many of the Amendment 80 vessels engage in a variety of onboard processing activities that meet the definition of fish processing under USCG regulations and would therefore be subject to class and load line requirements. Class and load line requirements are designed to ensure that vessels are operated safely in a manner consistent with general principles of marine safety. Class and load line requirements for fish processing vessels include regular examination by a USCG accepted organization, such as the American Bureau of Shipping (ABS), *Det Norske Veritas* (DNV), a similarly qualified organization, or a surveyor of an accepted organization.⁴⁴ These reviews and any vessel modifications to meet these requirements

⁴⁴ USCG defines a fish processing vessel as "a vessel that commercially prepares fish or fish products other than by gutting, decapitating, gilling, skinning, shucking, icing, freezing or brine chilling" (46 USC 2101(11b)). Regulations for classing a fish processing vessel are found at 46 CFR 28.710, and load line requirements are found at 46 CFR 42.03-05.

can be costly. Moreover, a number of the Amendment 80 vessels may not be able to meet class and load line requirements due to the age and construction of the vessels. The USCG developed the ACSA to encourage improved safety for these vessels, and minimize incentives for these vessels to operate as uninspected fishing vessels with minimal safety requirements.

Uninspected fishing vessels are limited from processing specific fishery products, whereas vessels that meet the ACSA requirements are able to retain a wider variety of products. Therefore, vessels have an incentive to ensure compliance with the ACSA, so that the maximum amount of product can be retained, thereby increasing the likelihood that the vessel will meet the GRS. Vessels that fail to meet the requirements of the ACSA may be disenrolled from the program. USCG required that vessels comply with the ACSA by December 31, 2008. USCG notified a number of Amendment 80 vessel operators that their vessels would be disenrolled from the ACSA and therefore unable to process and retain certain products. Those vessel operators worked with USCG to rectify their status.⁴⁵ However, should vessels fail to meet the ACSA standard in the future, or should additional requirements be imposed by the USCG at a future date, those vessels could be limited in the product forms they may retain and may have a more difficult time meeting the GRS requirements. These factors could reduce the attractiveness of these vessels as participants in a cooperative if the GRS is more likely to be constraining on the cooperative as a whole.

GRS compliance could be improved, and therefore the attractiveness of a specific vessel owner as a cooperative member, if a vessel owner replaces an Amendment 80 vessel that has suffered a loss or is no longer able to be documented in a U.S. fishery. Amendment 80 vessel owners are able to replace their vessels consistent with the result of litigation in *Arctic Sole Seafoods v. Gutierrez* that allows “a qualified [Amendment 80 vessel] owner to replace a lost qualifying vessel with a single substitute vessel.” Replacing a vessel with one with greater hold or processing capacity, class and load line certification, or possibly a fish meal plant would increase the retention rate compared to the vessel being replaced and would likely be more desirable in a cooperative. The Council is currently reviewing alternatives for allowing replacement vessels consistent with *Arctic Sole Seafoods v. Gutierrez* under a separate amendment package.

2.3.8.3.5 Enforcement Compliance

With any cooperative management structure, coordination is essential, both in terms of regulatory compliance and oversight of contractual relationships. Entities perceived to have a checkered past of historically poor compliance performance, or who are resistant to oversight and information sharing may be particularly unattractive as cooperative partners. In addition, regulations at 50 CFR 679.91(h)(3) clarify that “each member of the Amendment 80 cooperative is jointly and severally liable for any violations of the Amendment 80 Program regulations while fishing under the authority of a CQ permit. This liability extends to any persons who are hired to catch or receive CQ assigned to an Amendment 80 cooperative. Each member of an Amendment 80 cooperative is responsible for ensuring that all members of the cooperative comply with

⁴⁵ LCDR Lisa Ragone, 17th Coast Guard District, personal communication.

all regulations applicable to fishing under the Amendment 80 Program.” This regulation has caused concern among some cooperative participants about their potential liability from some fishery participants. However, cooperative members could establish contracts that indemnify or otherwise compensate other members from potential violations they may incur. As an example, a cooperative could require members that are perceived as having a poor compliance history from establishing an escrow account with sufficient funds to cover any potential violations prior to the start of a fishing year to ensure that any potential costs would be quickly and efficiently paid.

The decision to impose liability on a cooperative for the actions of a cooperative member is made on a case-by-case basis. For example, violations by specific vessels operating under an AFA inshore cooperative permit have been assessed only against that vessel owner or operator, and not against the AFA inshore cooperative as a whole due to the facts surrounding those violations. NOAA GCEL would evaluate the appropriateness of applying joint and several liability in the Amendment 80 sector in a similar fashion.

2.3.8.3.6 Costs of cooperative participation

Establishing and maintaining a cooperative requires investments by its members to establish and oversee cooperative arrangements. These requirements impose additional costs on industry participants that may affect their decisions to establish or join a cooperative. For owners of single vessels with limited QS, the costs of cooperative membership could be disproportional relative to expected benefits of cooperative membership. As an example, the one QS permit that has not yet been issued would be derived from the fishing activities of the *F/V Golden Fleece*. That QS permit would yield only 0.1 percent of the total QS pool, and would subject the vessel owner to requirements that they submit an annual economic data collection report, pay cooperative membership fees, and potentially adhere to other cooperative fishing agreements limiting catch in the BSAI or GOA that would be more costly than foregoing cooperative membership. Similarly, vessel owners with relative small QS holdings may choose to fish in the limited access fishery if the perceived costs of complying with a cooperative arrangement would be greater than the potential benefits from fishing in the limited access fishery (e.g., small QS holders may have more opportunity to harvest more fish in the limited access fishery than they would be limited to under a cooperative contract).

2.3.8.3.7 Coordination on non-cooperative quota fishing

Participants in the Amendment 80 sector are active in CDQ fisheries, various fisheries in the GOA, and BSAI species that are not allocated under the Amendment 80 Program (e.g., Alaska plaice, arrowtooth flounder). As part of the negotiating process, QS permit holders and vessel owners may wish to ensure that their activities in these other fisheries are not adversely affected. As an example, members of the existing cooperative privately negotiated the apportionment of GOA sideboard limits among cooperative members with historic activities in those fisheries. The ability of a cooperative to effectively address these fishing patterns may be a deciding factor for some QS holders' cooperative membership.

Currently, BUC has established a series of agreements concerning certain fisheries in the GOA. However, those arrangements do not include members of the limited access fishery. If certain members wish to better coordinate fishing operations in

the GOA among all members (e.g., Western GOA Rockfish fisheries) they may have an incentive to accept members into a cooperative. Similarly, members for whom fishing in the GOA is important may wish to establish contracts in coordination with the arrangements in the BSAI to protect their interests, and may resist membership if acceptable arrangements cannot be reached.

2.3.8.3.8 Harvesting capacity

Some participants in the Amendment 80 sector assert that persons who hold an LLP/QS license (i.e., QS without the accompanying vessel on which the CQ could be harvested) may not be able to effectively negotiate cooperative membership that provides a reasonable value for their QS. The validity of this assertion cannot be tested unless and until a person were to undertake the process of negotiation to become a member of a cooperative. The circumstances within the sector likely determine the extent of this effect. For example, a person with an LLP/QS license, who also owns an Amendment 80 vessel able to harvest the CQ yielded by the license might be unaffected in negotiations. Furthermore, A LLP/QS holder who may represent the necessary third owner or ninth QS permit necessary to form a cooperative may be in strong negotiating position. Similarly, a license holder with strong historic relationships with other sector members who has valuable CQ to contribute to the cooperative for harvest by others may be unaffected. On the other hand, a relatively independent license holder with no well-established relationships could be disadvantaged, particularly if a large single cooperative within the sector has developed. In this circumstance, with the only outside opportunity being to assign the LLP/QS license to the limited access fishery without a vessel, the license holder is likely to be poorly positioned to negotiate a reasonable price for contributing QS to the cooperative. This circumstance is unlikely to persist, since a recent court order in the *Arctic Sole Seafoods v. Gutierrez* case allows Amendment 80 sector members who lose a vessel to replace that vessel. However, depending on the circumstances, vessel replacement may take one or more years, disadvantaging the license holder for a period of time.

2.3.8.4 Review of current cooperative standards

The current cooperative standards are intended to provide several benefits to sector members and fishery managers. Some of these benefits are more likely to be realized over time, so the failure to obtain the full intended benefit in the first few years of the program (i.e., all members under cooperative management) is not necessarily a failure of the formation standards. As previously described, numerous reasons exist why the limited access fishery may be preferred by some fishery participants. On the other hand, evolution of the fleet over time could prevent some of the benefits, or apparent benefits, realized in the first year of the program from being realized in future years.

The existing entity and vessel thresholds may provide benefits by encouraging associations, and possibly consolidation, among vessel owners. This, in turn, could provide additional benefits from the fisheries through greater production efficiencies (i.e., increasing revenues and decreasing costs). Recent consolidation among fishery participants, (i.e., in 2009, O'Hara Corporation entered into contracts that will result in a controlling interest in two QS permits previously held by the Trident Corporation), suggests that vessel owners may perceive a benefit in establishing larger corporate

holdings. Although pass through cooperatives (such as the one formed in the first year of the program) may not achieve these as much as an integrated cooperative, it does represent a first step in development of more efficient operational associations. Management burdens also can be decreased through the consolidation of activities in larger units, and transferring more of the day-to-day decisions and monitoring burden to cooperative members. As an example, NMFS does not close cooperatives from directed fishing, and the cooperative becomes responsible for ensuring its members are well-monitored to avoid overages and potential violations.

The cooperative formation standards are also intended to interact with GRS for the benefit of smaller vessel owners who might otherwise have little negotiating leverage when interacting with other owners as the GRS is increased. Some assert that small vessels are a necessary lynchpin for other vessel owners to meet cooperative formation thresholds, thereby providing them with a relatively strong negotiating position. Even if smaller vessels may be perceived to be weakly positioned because of smaller allocations and potentially more costly compliance with GRS, if they are instrumental to meeting cooperative formation requirements, they may be able to overcome these shortcomings. In the first two years of the program, most small vessels joined the single cooperative that has formed.

Whether this membership indicates that the threshold is working as intended could be questioned for a few reasons. First, the cooperative is a pass through cooperative under which most members simply fish any allocation attributed to their own QS. In this cooperative structure, any benefit realized by small vessel owners is attributable only to their own allocations. Second, the lower GRS applicable in the first couple of years of the Amendment 80 program (i.e., 2008 and 2009) is not likely to be a limiting obstacle even for smaller vessels in the fisheries, particularly when associated with larger vessels in a cooperative. While the high proportion of smaller vessels in cooperatives in the first year is encouraging, it may not indicate that those vessels will continue to be needed to meet cooperative formation thresholds, as intended, in future years when GRS becomes more constraining.

Once the GRS rises, it is conceivable that vessels able to comply with the GRS may be less willing to come to terms with small vessels challenged by the GRS, for fear that they could jeopardize the cooperative's ability to meet the GRS and threaten its compliance. At the extreme, large vessels could form their own cooperative associations offering small vessels a choice between isolation in their own cooperative or the limited access. This could leave those vessels in a position of either fishing in the limited access fishery with a relatively small allocation with challenging GRS requirements, or the potentially poor terms for cooperative membership (which may include very constraining requirements to ensure that the cooperative's GRS is not compromised).

It is not possible to predict the outcome for single vessel, or small vessel companies, that are not essential for cooperative formation. However, even under the status quo alternative, none of the smaller companies assigned QS (i.e., Arctic Sole Seafoods, Fishermen's Finest, Cascade Fishing, Jubilee Fisheries, and Ocean Peace) could form a cooperative without participation from at least one of the larger companies (i.e., FCA, U.S. Seafoods, Iquiqui U.S., or the O'Hara Corporation). And only three of the larger companies would need to participate to form a cooperative under the status quo alternative. This suggests that even if cooperative standards are not relaxed, smaller

vessel cooperatives are not essential to cooperative formation provided three of the four larger companies can coordinate their operations. These dynamics could encourage greater consolidation within the fleet if smaller companies are no longer desirable as cooperative members due to constraining GRS requirements, and the limited access fishery is not a viable option.

2.3.8.5 Issues raised concerning the current cooperative standards

Arguments advanced for relaxing the cooperative formation standards generally contend that the current standard has reduced the potential for cooperative membership. Some participants contend that by establishing cooperative formation thresholds, some sector members who might otherwise choose to fish in the cooperative fishery have been unable to form the cooperative relationships necessary to meet the cooperative formation thresholds. Some participants contend that in a sector with few participants, thresholds provide little opportunity for sector members unwilling to consent to majority positions. Under these circumstances, the majority (who may be in one or more cooperatives of their own) could effectively force some vessels into the limited access fishery. In some instances, cooperative members could benefit from refusing to accept some prospective members in their cooperatives, either by a late season rollover of unharvested allowable catch from the limited access as was contemplated, but not approved by the Council, under Amendment 90,⁴⁶ or by entering vessels into the limited access fishery -- effectively fishing off of the allocation of sector members unwelcome in a cooperative or unable to come to terms with other cooperative members.

Whether persons strategize to reach this result, or merely benefit from unexpected circumstances, the outcome could be a windfall for one or more cooperative members arising from their unwillingness (or inability) to come to terms with other sector members. As noted in earlier sections of this analysis, persons whose interests have coalesced and are able to meet the standards to form a cooperative are under no requirement to accept additional members. Perfectly valid reasons may justify not wanting certain members in a cooperative, such as historically poor working relationships, concern about joint liability for violations, or differing harvest strategies that do not comport with other members. Yet, in any case when a cooperative member chooses to enter a vessel in the limited access fishery, one might question whether that choice is simply to assert leverage by encroaching on the allocation of vessels unable to come to terms with the cooperative.

Some industry participants have suggested that companies should be required to choose either to assign all vessels to a cooperative, or to the limited access fishery to minimize the potential for vessel operators to purposefully exclude members from a cooperative. A similar provision was included in the proposed rule for Amendment 80 to encourage cooperative formation. A similar provision has been included in other North Pacific LAPPs (e.g., BSAI Crab Rationalization). This provision was removed from the Amendment 80 final rule based on industry comments that such a provision was not explicitly recommended by the Council as was the case in other LAPPs, and that this provision would frustrate cooperative formation and the ability of companies to use

⁴⁶ See Draft EA/RIR/IRFA prepared for Amendment 90 at: www.fakr.noaa.gov/npfmc/analyses/AM90_108.pdf, Section 2.4.2.1

vessels in multiple cooperatives.⁴⁷ The Council could choose to recommend that this provision, or a similar provision limiting a person to participation either in one or more cooperatives or the limited access fishery, be reconsidered based on recent fishing practices observed in the limited access fishery that may disadvantage limited access fishery participants and create incentives to discourage cooperative formation.

Because the negotiations to form a cooperative are private negotiations, it is not clear that there is any objective way to distinguish between an inability to come to agreement on specific terms and behavior by participants who seek to create a competitive advantage by excluding others. This analysis does not attempt to determine the specific factors that led to cooperative formation and limited access fishery participation for 2008 or 2009. Furthermore, it is not appropriate to assume that the cooperative formation patterns observed in the first years of the program (described in Table 1) would be observed in future years, so any analysis predicated on the first two years of cooperative may be inappropriate. As an example, three prospective QS permits, currently held by two unique persons, were not applied for, and not issued QS in 2008, but two of those permits were issued QS in 2009. The holders of those permits are participating in the fishery, thereby increasing the number of persons and QS permits who are eligible to form a cooperative. Similarly, some members of BUC in 2009 could prefer to form alternative relationships for 2010, thereby changing negotiation dynamics.

It is conceivable that one or more members of a cooperative could receive benefits from excluding persons from a cooperative. As an example, the cooperative could coordinate efforts, and use fewer vessels to more efficiently harvest the cooperative's quota, thereby allowing vessels owned by cooperative members, but not assigned to the cooperative, to join the limited access fishery. Under an integrated cooperative model, this cooperation is more likely to occur than under a pass through model (i.e., when each member effectively harvests an amount of CQ derived from the QS they have assigned to the cooperative).

In any instance, cooperative members engaged in forcing persons into the limited access fishery would need to be careful to avoid any violation of antitrust law or other regulations governing the constraint of trade. Certain arrangements are likely to be problematic. These generally arise from the opportunity for a cooperative member with multiple vessels to enter a vessel in the limited access fishery and harvest a greater value of fish than if that vessel were fishing in the cooperative. Potentially, the value of the marginally greater revenue derived from that operation could be shared among other cooperative members. Alternatively, a cooperative member could enter a vessel in the limited access fishery, engage in fishing with high PSC rates, effectively closing the fishery to ensure that catch is not harvested in the limited access fishery. At its most egregious, a cooperative could adversely affect the markets of competitors, to provide a market advantage to a cooperative, or force a company into bankruptcy and purchase the liquidated assets below market value. Whether any of these scenarios would be a regulatory or legal violation depends on the circumstances, but each is problematic in that cooperative members are coordinating associations with the purpose of depriving participants in the limited access fishery from the opportunity to participate in cooperative management, and receive value arising from excluding that person.

⁴⁷ See response to comment 26 (72 FR 52690).

More generally, cooperative formation standards that may not be easily achieved may be opposed by persons who believe that in all cases cooperative fishing should be preferred to the limited access fishery. It is generally believed that fishing exclusive cooperative allocations allows participants to end the race for fish and modify fishing practices to improve fishery returns and reduce bycatch. These benefits are argued to outweigh the possible intended benefits from formation thresholds (including distributional effects), since those benefits are uncertain (i.e., may or may not be realized). It may be argued that penalizing sector members unable to come to terms with others in the sector, forsakes the benefits that arise from a cooperative allocation, for benefits that are less certain.

2.4 Potential Effects of the Alternatives

Throughout this section, the effects of Alternatives 2 through 6 are considered generally against the status quo. Because of the lack of quantitative data, and the nature of this action (i.e., modifying a cooperative formation standard, encouraging cooperative formation, and minimizing potentially adverse effects), it is not often possible to provide specific detail on how one alternative, or a specific suboption would differ substantially from another alternative in achieving the goals of encouraging greater cooperative participation. Where possible the description provides a discussion of the continuum of potential effects among Alternatives 2 through 6 and among the various suboptions under each alternative. The GRS suboption is addressed separately in this analysis.

Generally, this analysis assumes that negotiations would become more transparent with the lowering of cooperative formation thresholds. Specifically, the greater the number of outside opportunities to form cooperatives, the more likely that persons negotiating cooperative membership will receive the actual value of their operations and assets from a cooperative arrangement. For example, a person who is instrumental to cooperative formation may be able to leverage that position with the cooperative to receive greater value for their participation in the cooperative than reflected by the value of their QS or assets under other fishing conditions, because the other members would be willing to “pay” for that person’s participation so they are not deprived of the benefits brought by cooperative membership that is ensured by the threshold member. On the other hand, if the cooperative can form with or without a person, the person will have no special leverage with respect to other members in negotiations. Thresholds that allow more cooperatives to form limit the extent to which leverage may be asserted by persons who are non-members prior to the threshold being met or by persons who are members after that threshold is met. In addition, creating a limited access fishery as the outside option likely increases any leverage arising from constraining cooperative thresholds, since the opportunity in the limited access fishery is likely to be substantially less appealing than the opportunity in a cooperative. In any case, persons in a position to deprive others of the benefits of cooperative membership through more stringent cooperative formation standards will have added leverage, to the extent that the limited access opportunity poses challenges to the member that is excluded and the cooperative is able to benefit. This added leverage rises with competition in the limited access fishery, and will also rise for some sector members as the GRS increases and its effects become more constraining on their operations.

2.4.1 Alternative 1: Status quo

The status quo alternative is the most restrictive alternative considered in terms of the number of QS holders, QS permits, and the maximum number of cooperatives that can form. Because a majority of participants have chosen to participate in the one cooperative that has formed, this alternative would not change the existing cooperative standards. Some industry participants have argued that this alternative may have the least potential risk of creating conditions that would exclude smaller QS holders. Some industry participants have suggested that there is a risk to any change to the existing cooperative formation standards because such a change would diminish the negotiating leverage of QS holders who may be necessary to meet the threshold requirements under more stringent cooperative formation standards. The assertion is that this potentially adverse affect may be more likely for participants owning vessels that are more likely to be constrained by the GRS as the retention rate increases. As an example, under the existing cooperative formation standard, a maximum of three cooperatives can form, and a person who is necessary for the cooperative to meet these standards may have greater negotiating leverage than could exist under alternatives where there are a greater number of potential persons who are available to allow a cooperative to form.

Because the cooperative formation standard is relatively high, and there is a more limited number of QS permits or QS holders that are available to meet the third QS holder or ninth QS permit requirements, those participants may be better able to negotiate favorable terms, even if those participants have limited QS holdings or lower retention rates relative to other cooperative members. Under the most extreme example, as indicated in Table 1 under Alternative 4, suboption 4, several QS holders could form cooperatives independent of other QS holders and the negotiating leverage of QS holders who are unable to form cooperatives independently may be diminished relative to those QS holders able to independently form a cooperative.

However, it is not clear that changing the cooperative standards would necessarily disadvantage participants who are more constrained by the GRS, than retaining the status quo. Table 2 shows that several multiple vessel owning companies could form a cooperative and exclude smaller QS holders, or single vessel owners under the status quo alternative. The single cooperative that has formed in 2008 and 2009, contains several more members than are strictly necessary to meet the cooperative formation standards. If the cooperative formation standards are relaxed, it is not clear that this would adversely affect the negotiating position of participants who have chosen to participate under the current cooperative structure. In fact, it may provide additional negotiating leverage to smaller QS holders or single vessel owners, if they have multiple options available to them. Other dynamics may exist between harvesters that favor a larger cooperative structure, but it is not clear how changing the cooperative formation standards would adversely affect those dynamics. Generally, under all alternatives, including the status quo, one would expect QS holders who hold only one QS permit (i.e., own one vessel) to have diminished negotiating leverage, relative to QS holders with multiple permits, because they are not able to contribute as many QS permits to help meet the minimum QS permit formation standard.

Potential economic effects of this alternative relative to other alternatives are not quantifiable, given the limited data available. Other alternatives may provide additional opportunities for vessel operators to form cooperatives, and if those cooperatives are able

to operate with greater profitability, then this alternative may provide relatively fewer benefits to the fishery participants and the nation. However, it is difficult to determine whether this alternative constrains fishery participants from achieving these goals. Currently, it is possible that all QS holders could join a single cooperative and realize some potential benefits of cooperative management. The fact that this has not occurred despite apparent efforts by the various parties suggests that other factors such as historic working relationships may be affecting the ability of the parties to reach agreement. Maintaining the status quo alternative could result in the same relative split in TAC between the cooperative and the limited access fishery unless conditions in the fishery change to encourage greater cooperative membership, a sufficient number of participants leave the existing cooperative and choose to form a cooperative with existing limited access fishery members, or the current limited access fishery participants form their own cooperative.

2.4.2 Alternative 2: Modifying the number of owners required to form a cooperative

Depending on the degree of any ownership threshold, sector members could be faced with required negotiation with several other owners in the fishery, or forming a single company cooperative and effectively receiving an IFQ. Allowing a single company to form a cooperative would allow any sector member to form his own cooperative and receive an exclusive harvest privilege that could be fished or transferred to other sector members. A single person threshold does not compel the coordination, compromise, and negotiations which the Council identified as goals for Amendment 80. A single person threshold would have the advantage of eliminating the potential adverse consequences of managing and fishing of a race for fish in the limited access fishery. Allowing a single company cooperative, however, could limit the formation of associations among participants who might wish to form a cooperative relationship with other owners because they may be less economically efficient or may be challenged by the GRS without the benefit of the larger vessels or larger QS allocations that would be brought to the cooperative by other sector members. However, it is not clear that this potential is substantially different than the status quo alternative, because under the status quo several large companies with multiple permits could form a cooperative and exclude smaller vessels.

A potential advantage to lowering the number of owners required to form a cooperative, including providing a single company cooperative, is that owners who may otherwise be undesirable as cooperative partners would be able to receive a CQ allocation that could be fished or traded to other cooperatives. These unwanted potential partners could be entities such as companies with poor working relationships with other members, or small vessels that pose GRS challenges, and risks, for other cooperative members. By allowing single company cooperatives, those sector members would only assume joint liability for the actions of cooperative members with whom they truly desire business relationships, rather than sector members who must be taken on, simply to meet the threshold. One could argue that lower ownership standards could encourage companies with strong working relationships to operate more collaboratively under an integrated cooperative model only with those members with whom they have the best working relationships. At the same time, those members who do not have collaborative working

relationships with other members would be able to establish a cooperative, thereby increasing the potential benefits derived from an exclusive harvest privilege under cooperative management.

Overall Alternative 2 would not be expected to provide as many potential options to form a cooperative as Alternative 3, Alternative 4, Alternative 6, or Alternative 5, suboptions 2 and 3 because under both suboptions of Alternative 2, not more than three cooperatives could form. Although reducing the number of owners may provide greater opportunities for larger QS holders with multiple permits, because they would need to negotiate with only one other party, or no other party, it would not necessarily provide more total options for cooperative formation, particularly for single vessel owners. If potential additional economic benefits are derived from flexibility in cooperative formation, then Alternative 2 yields smaller potential benefits than Alternatives 3, 4, 5, or 6.

2.4.3 Alternative 3 Modifying the number of QS permits required to form a cooperative

Lowering the number of QS permits that are required to form a cooperative could provide additional cooperative opportunities for large and small QS holders. On the other hand, reducing the number of QS permits (vessels or LLP/QS licenses) required to form a cooperative could reduce the negotiating leverage of smaller vessel owners if those vessels are less necessary to meet the cooperative formation requirements. In the extreme, if single small vessel owners are not perceived as necessary to form a cooperative, and it is perceived that these vessels cannot meet GRS requirements and economically participate in the BSAI, the negotiating leverage of those smaller vessels will be very limited. If all vessel operative are able to effectively operate as though they held IFQ, small entities could be left to fail, as no cooperation, coordination, or negotiation would be required. Whether this effect occurs is likely to depend on the circumstances and actions of sector members, in part, because it is not certain that small vessels will be instrumental in meeting the existing formation standard.

Modifying cooperative formation standards so that fewer QS permits are required to form a cooperative could provide additional opportunities for cooperative formation. Easing the requirements would allow more cooperatives to form, each structured around similar fisheries or operations. It is difficult to predict the relative value of lower cooperative formation thresholds to companies owning a single or few vessels. One would expect that if more cooperatives can be formed, then owners of single vessels or few vessels, whether large or small, would have additional opportunities to negotiate. Under certain conditions, it could be possible that more than one owner of multiple vessels could be attempting to form a cooperative and these vessel owners could be actively competing to attract a single vessel owner to join. Under that scenario, the lower cooperative formation standards could improve the negotiating leverage of the single vessel owners because they may have additional opportunities to provide the necessary vessel or number of owners required. Without knowing the specific dynamics of the negotiating positions of the parties, which will vary from year to year, it is not possible to definitively state how modifying the number of QS permits would affect negotiating leverage.

This alternative would likely provide limited opportunities for additional cooperative formation for multiple QS holders, because the QS holder limit of three unique persons would still be constraining. This alternative could provide some limited additional options for smaller vessels to form cooperatives, but only to the extent that there were at least three unique QS holders available. Currently, there are only nine QS holders, or 10 if the one remaining potentially eligible QS holder chose to apply for QS (see Table 2). Therefore, reducing the number of QS permits required to form a cooperative to three, under suboption 2, could result in a theoretical maximum of nine cooperatives. However, if QS holders chose not to subdivide their QS permits among cooperatives, it is likely that even under suboption 2 a maximum of only three cooperatives could form. It is not clear that this alternative would offer substantially greater cooperative formation opportunities, or have substantially different economic implications than the status quo alternative.

2.4.4 Alternative 4 Modifying the number of QS holders and QS permits required to form a cooperative

Alternative 4 is likely to provide the greatest opportunities for both multiple vessel and single vessel owners to form a cooperative. Under Suboption 2 and Suboption 4, three single vessel owners could choose to form a cooperative, an option not available under any of the other alternatives. Similarly, under suboption 4 all but one of the multiple vessel owners could choose to form a single company cooperative, effectively operating as though they were IFQ holders, independent of other members. To the extent multiple cooperative formation opportunities provide more transparent interactions, minimize the ability to exclude QS holders from cooperative formation, and provide the greatest opportunity to establish cooperatives, this alternative, and Alternative 6, may best achieve the goals described in the Council's purpose and need statement.

Although this alternative, in particular suboption 4 could allow multiple QS holders to form cooperatives, it is not clear that this would specifically disadvantage single vessel owners. As an example, even if all of the current multiple vessel owners that could choose to form single company cooperatives did so under suboption 4, the most liberal cooperative formation standard the Council is considering, and assuming the current ownership status of QS holders does not change from that reflected in Table 2, five QS owners and six QS permits remain. Those remaining QS holders could choose to form two distinct cooperatives comprised of three members. If a similar scenario existed under the status quo alternative (i.e., all QS holders holding a minimum of three QS permits) chose to form a cooperative, the five remaining QS holders would be unable to form a cooperative because they would fail to meet the requirement for a minimum of nine QS permits, and would be forced to fish in the limited access fishery.

2.4.5 Alternative 5 Establishing a minimum QS holding threshold for cooperative formation

Currently, a minimum amount of the total QS pool is not required to be assigned for cooperative formation. The current standard of nine QS permits does not specify that a certain percentage of the QS pool must be assigned to those permits. Depending on the choice of thresholds, however, sector members could be treated differently under such a requirement. In February 2009, the Council clarified that this standard would not replace

the existing requirements for a minimum number of three unique QS holders and nine QS permits, but would be an alternative mechanism for cooperative formation to the status quo. Assuming that the current QS ownership structure is retained, only one cooperative could independently form a cooperative (see Table 1).

Although this alternative does not offer the potential for as many cooperatives to form (i.e., a maximum of only five cooperatives when compared to nine cooperatives under other alternatives and suboptions) it could offer additional flexibility over the status quo alternative by allowing QS holders to form cooperatives around specific species or operational types, without having to meet a minimum QS permit or QS holder standpoint. To that extent, it may offer additional flexibility and opportunities when compared to the status quo. It should be noted, that FCA, the largest QS holder, and currently a participant in the limited access fishery would be able to form a cooperative under all of the suboptions. If FCA did establish a single company cooperative, then it is likely that the remaining participants in the limited access fishery would have a strong incentive to join a cooperative because a limited amount of QS, and therefore ITAC, would remain in the limited access fishery.

Under the suboption where 30 percent of the QS must be assigned to a cooperative in order for it to form, no more than one person could qualify to form a cooperative as a single company under that suboption, effectively operating as though that person held IFQ. The existing limitations that no person may hold more than 30 percent of the Amendment 80 QS pool unless that person held the catch history of qualifying vessels prior to final action by the Council in June 2006 (50 CFR 679.92(a)), and the prohibition on the severability of QS from the permit to which it is assigned (50 CFR 679.90(a)) effectively limits all but one company from being able to hold 30 percent or more of the QS pool. However, it would still be possible for more than one company to combine their QS holdings in order to meet the minimum QS holding standards of 30%, 25%, or 20% of the Amendment 80 QS pool.

2.4.6 Alternative 6 Require a cooperative to accept any otherwise qualified member subject to the same terms and conditions applicable to other members.

The Council included this alternative based on a recommendation from NMFS in October 2009. The principal concerns raised about this alternative are that: (1) this provision has been previously considered in the Amendment 80 proposed rule and rejected; (2) this provision is not necessary to ensure that cooperatives form; (3) joint and several liability provisions could create risks or additional costs for cooperative members if a person with a history of enforcement violations becomes a member of a cooperative; and (4) allowing all members into a cooperative could disrupt internal negotiating dynamics within the cooperative.

Section 2.3.6 notes that this alternative was considered in the Amendment 80 proposed rule, but withdrawn from the final rule based on the lack of clear guidance from the Council to include this provision, and the response of industry to its proposed inclusion. Although this provision was considered as part of the proposed rule, the Council never specifically considered this alternative during the development of the

Amendment 80 Program. NMFS proposed this provision in the Amendment 80 proposed rule as a regulatory provision. The Council did not recommend that this provision be retained, or provide specific input during the Amendment 80 proposed rule comment period. Based on public comment, NMFS removed this proposed provision. The Council may consider and recommend changes to the Amendment 80 Program in response to new information or new policy choices. The fact that this provision was not included in the Amendment 80 final rule does not preclude the Council from considering this alternative at this time.

Public comments concerning this provision noted that under the existing cooperative standards, up to three cooperatives could form and the multiple arrangements that are possible do not require that a cooperative accept all otherwise eligible members. This argument is appropriate if there are practical, rather than theoretical, opportunities for a participant to join a cooperative, and the dynamics of cooperative management do not create incentives for participants to exclude a specific member. Assuming the current structure of the BUC cooperative and limited access fisheries are likely to continue, up to two cooperatives could form. Although it is not certain that the BUC membership will stay the same, past experience with the AFA, the Central GOA Rockfish Program, and to some extent crab cooperatives, suggests that once cooperatives have formed the parties do not frequently modify the cooperative's membership. That pattern may occur in the Amendment 80 sector as well. Industry participants have not indicated that substantial changes in BUC membership are anticipated. Therefore, it is reasonable to assume that practically, at least two cooperatives could form—BUC, and all, or all but one, of the current members of the limited access fishery.

However, there may be incentives for BUC members, or current limited access members to frustrate the formation of an additional cooperative. As noted in Section 2.3.8.5, owners of multiple vessels/QS permits can assign those permits to both the limited access and a cooperative fishery. One participant has been a member of BUC and the limited access fishery in 2008, 2009, and 2010. Presumably, that member continues to operate in this manner because the vessel assigned to the limited access fishery can benefit from fishing competitively in the limited access fishery and derive a greater value than would likely result from being assigned to a cooperative. If that is the case, that member would be likely to discourage the BUC cooperative from accepting members from the limited access fishery. Similarly, other participants in the limited access fishery with relatively small QS holdings may prefer to compete in the limited access fishery, and would discourage cooperative formation, if the cooperative option is likely to yield less value than competitive fishing.

Several industry participants have raised concerns that joint and several liability could pose substantial risks to cooperative members if a member had to be accepted who had a poor enforcement record. Currently, the AFA and Central GOA Rockfish Program address this issue by clearly establishing the roles and responsibilities of the various parties and the managerial authority of the cooperative managers to address inseason management concerns. For example, under the AFA intercooperative contract, the cooperative manager has the ability to enforce certain provisions on vessel operators to ensure that they comply with salmon bycatch agreements. Central GOA Rockfish managers can order vessels to cease fishing if they exceed the allocations or halibut PSC rates that have been specified in the cooperative arrangements that all members sign. In

both of these programs, these risks have been addressed by specifying these terms and conditions in civil contracts before fishing. Cooperative managers in the AFA and Central GOA Rockfish Program have not indicated that indemnification clauses have been exercised or that cooperative managers have needed to take actions that have resulted in limitations on vessel operations.⁴⁸ This experience suggests that vessel operators have strong incentives to adhere to the contractual obligations to ensure continued participation in a cooperative and avoid potential penalties. Cooperative contracts in the Central GOA Rockfish fishery do contain provisions that allow the cooperative to establish escrow accounts to fund any potential violations, but those accounts have not been used. In addition, the Central GOA Rockfish cooperative contracts contain provisions that if a party is subject to an enforcement action that may adversely affect the cooperative, that member will be responsible to any penalties, fees, and costs borne by the cooperative.

As with all cooperative contracts, a violation of contract terms is subject to civil enforcement. Although not exhaustive, regulations establishing civil enforcement of civil contracts are commonly used in many North Pacific LAPPs such as the AFA (e.g., the rolling hotspot intercooperative agreements), BSAI crab rationalization program (e.g., Arbitration System), and the Central GOA Rockfish Program (Cooperative standards). Unless the conditions in the Amendment 80 sector are dramatically different than conditions in other potentially contentious contractual relationships (e.g., BSAI crab Arbitration System), it is not clear that civil violations would be any more likely in the Amendment 80 sector than in other fisheries. If the parties were concerned that violations were more likely, escrow provisions linked to the potential risk of violation or other measures could be incorporated into the cooperative contracts. Some industry participants have indicated that the use of escrow accounts could adversely affect smaller QS holders with more limited assets. Cooperative contracts could address these concerns by linking these requirements for escrow to the amount of QS holdings or asset values of the members to address these concerns.

Allowing all potentially eligible members into a cooperative could potentially shift the internal dynamics within the cooperative. Cooperative contracts established among members who have already established good business relationships may be easier to negotiate and could require less oversight. If a cooperative contract is established and all members must be accepted, internal monitoring provisions related to catch reporting and other terms could become more stringent, and more costly for each member. Cooperative contracts would need to be developed to address the range of the potential issues that may result from all participants becoming a member of a cooperative. This task could require substantially more initial effort to establish. Experience with the AFA inshore cooperative and Central GOA Rockfish Program suggests that cooperatives can develop well-designed contracts addressing potential contingencies successfully. Because cooperative contracts would need to be developed to accept all potential members, one would expect that common terms and conditions related to monitoring, enforcement, and performance of the contract would be similar between potential Amendment 80 cooperatives if more than one cooperative formed.

An additional factor that cooperative members would need to consider is how to ensure that cooperative contracts are structured so that all members are, in fact, subject

⁴⁸ John Gruver and Julie Bonney, November 17, 2009, pers. Comm..

to the same terms and conditions. For example, a cooperative contract could contain specific clauses that may, in practice, affect only one of the members. This concern is not easily addressed through a regulatory mechanism. NMFS does not have an extensive review process established under the AFA or the Central GOA Rockfish Program to determine if the contracts effectively offer the same terms and conditions to all members. Any such a review would be complicated and any evaluation could be subject to challenge. The potential parties to a contract are best situated to assess the appropriateness of a potential contract provision through civil court if they disagree on the application of specific contract terms. It is not possible to assess the risk that the terms in a cooperative contract would be subject to challenge by a potential member.

Alternative 6 would not alter the existing dynamics required to form a cooperative, but could require substantial changes to the current BUC cooperative contract, and would need to be considered by any future cooperative, to ensure that any eligible new member could be incorporated. Because any member could join a cooperative under Alternative 6, members with limited QS holdings (i.e., single vessel companies) may find this alternative attractive because it provides them the potential to participate in a cooperative even if they are not necessary to meet the minimum number of unique persons and QS permits required under other alternative. Because all eligible participants in the Amendment 80 sector could join a cooperative under this alternative, a greater proportion of the fleet could come under cooperative management under this alternative relative to the status quo and Alternatives 2 through 5 because participants would not be able to join any cooperative that does form, and those cooperative members would have more limited incentives, and ability, to purposefully exclude a specific member.

2.4.7 GRS Suboption Modifying GRS to allow calculation based on retention among cooperatives

As proposed by the Council, this suboption may facilitate GRS compliance among cooperatives, however, it does not specifically change cooperative formation standards, because it cannot apply until after a cooperative has formed. Initially, this suboption was considered as a separate alternative. After reviewing staff suggestions during the February 2009 initial review, the Council recommended that this suboption may be applicable under all alternatives, or specific alternatives, as the Council chooses.

NMFS assumes that this alternative would be applied by calculating the GRS by first summing the total retention of all cooperatives against the total catch of all cooperatives. If that aggregated catch is greater than the GRS for a given year, all cooperatives would meet the GRS. If the aggregate retention for all cooperatives is lower than the GRS for that year, then NMFS would calculate the GRS for each cooperative independently and take the appropriate enforcement action only against those cooperatives that failed to meet the GRS. As an example, assume that the GRS rate for the year is 80 percent. Then assume: (1) Cooperative A catches 100 pounds and retains 60 pounds (60% retention rate); (2) Cooperative B catches 200 pounds and retains 180 pounds (90%); and (3) Cooperative C catches 300 pounds and retains 250 pounds (83%). Cooperative A would not meet the 80 percent GRS requirement independently, but the sum of the total catch and total retained catch of all three cooperatives (490 pounds/600 pounds = 81.66% retention rate) does exceed the GRS requirement and therefore all

cooperatives would meet the standard. If the case were different, and Cooperative A only retained 30 pounds of the 100 pounds it caught, then the total/retained for all three cooperatives would be less than the 80 percent GRS requirement (460 pounds/600 pounds = 76.7% retention rate). In that case, Cooperative A would not meet the standard, but Cooperatives B and C would because their retention rates (90% and 83%, respectively) exceed the GRS requirement. NMFS tracks retention by each cooperative independently, and summing the total catch and total retention of multiple cooperatives is a relatively simple task.

Conceivably, a cooperative may not meet the GRS independently, but could meet the GRS if aggregated with other cooperative, and could face the potential risk that another cooperative fails to retain enough product to ensure that cooperative would meet an aggregate GRS. Although unlikely, a cooperative with the ability to ensure that other cooperatives meet an aggregate GRS could exert pressure on those cooperatives for compensation or other favorable conditions in order to maintain a high retention rate, particularly if that cooperative is already guaranteed to meet the GRS for that year. This scenario appears unlikely because all cooperatives are likely to benefit from an aggregate standard, and exacting compensation from other cooperatives for retaining a certain retention rate would not be likely to serve the long-term interests of a cooperative.

During the February 2009 initial review, the Council requested that NOAA Office of Law Enforcement (OLE) and NOAA General Counsel for Enforcement and Litigation (GCEL) review this alternative and provide additional comments. Although the actual computation of the GRS under this suboption is not particularly difficult, some additional effort and cost likely would be required to enforce this suboption relative to the current GRS enforcement. In order to enforce any violation on a specific cooperative, NOAA would have to establish that the overall retention of all of the cooperatives was under the limit for that year, as well as for each cooperative. If there are multiple cooperatives, then NOAA OLE and GCEL would have to verify the retention rate for all cooperatives. This could entail an extensive review of observer data, catch records, interviews, or other information, and the need for a potentially large number of observers as witnesses. The additional work required by NOAA OLE and GCEL would vary depending on the size of the cooperatives. As an example, under the status quo enforcement of the GRS, if the existing cooperative failed to meet the GRS, NOAA OLE and GCEL may need to verify catch and other data on each of the 15 vessels actively fishing in the cooperative. If an additional cooperative formed and was comprised of the current members of the limited access fishery, NOAA OLE and GCEL may need to investigate data from the 7 vessels active in that fishery as well. The potential cost and time that may be required is not possible to predict with certainty because it would vary with the sizes of the cooperatives, and the specific condition of the potential violation, which are unknown.

In February, the Council recommended that the GRS option be included as a suboption under Alternative 1, the status quo alternative. NMFS staff noted that adopting the GRS suboption without an additional alternative would not meet the specific purpose and need applicable to the other alternatives in this action. Should the Council choose to adopt the GRS suboption under Alternative 1, the Council would need to adopt a modified purpose and need statement. A draft purpose and need statement is provided for the Council to consider.

GRS Suboption under Alternative 1:
Purpose and Need

As the GRS increases, participants may have increased difficulties meeting the GRS requirements. Allowing cooperatives to aggregate the GRS among all cooperatives could provide additional assurance to cooperatives that a minimum amount of retention is met without requiring specific vessel operators to form a cooperative with other vessel owners who may not share common goals or operating procedures. An aggregate cooperative GRS would continue to further the goals of maximizing groundfish retention, while providing some additional flexibility for vessel owners.

2.5 Summary of potential effects of the Alternatives

2.5.1 Effects on Cooperative Negotiating Leverage within the Amendment 80 sector

This analysis notes that under any of the alternatives under consideration, holders of a limited amount of QS, or owners of smaller vessels relative to other vessels in the Amendment 80 fleet, are likely to have weakened negotiating leverage when seeking favorable terms to join a cooperative as the GRS increases if they cannot be competitive in the limited access fishery and fishing operations in the GOA are not viable. Smaller vessels tend to have less sophisticated processing operations and may not be able to retain as many different species, or retain products as effectively or economically as larger vessels with more expansive processing operations, and greater hold capacity. Larger vessels may face less of an economic imperative to retain only high value species and products and discard lower value species and products. Participants using vessels of any size will find it difficult to receive the benefits of cooperative management if they cannot reach agreement on negotiated terms, the limited access fishery is an unattractive outside option, or (less likely) a cooperative is able to derive some benefit from forcing an entity into the limited access fishery.

General benefits to relaxing cooperative formation standards either by reducing the number of QS permits that must be assigned (Alternative 2), the number of owners required (Alternative 3), a combination of both (Alternative 4), allowing a cooperative to form with a minimum QS holdings (Alternative 5), or allowing any eligible member to join a cooperative (Alternative 6) include: (1) providing additional opportunities to QS holders to form cooperatives because more combinations of unique QS holder and QS permits are possible; (2) reducing the potential risk of any one company being unable to negotiate terms and be forced to fish in the limited access fishery; and (3) reducing the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative if those fishery participants can form a cooperative independent of other QS holders. Generally, easing cooperative formation standards could reduce the risk that a person may not be able to reach agreement with other members and would be forced into the limited access fishery.

Some industry participants have suggested that there is a risk to any change to the existing cooperative formation standards because such a change would diminish the

negotiating leverage of QS holders who may be necessary to meet the threshold requirements under more stringent cooperative formation standards. These participants assert that this potentially adverse affect may be more likely for participants owning vessels that are more likely to be constrained by the GRS as the retention rate increases. As an example, under the existing cooperative formation standard, a maximum of three cooperatives can form, and a person who is either the third unique QS holder or holds the ninth QS permit to allow a cooperative to form may have greater negotiating leverage than could exist under alternatives where there are a greater number of potential persons who are available to allow a cooperative to form. Because the cooperative formation standard is relatively high, and a more limited number of QS permits or QS holders are available to meet the requirements, any potential participant may be able to negotiate favorable terms, even if those participants have limited QS holdings or lower retention rates relative to other cooperative members. It is not possible to identify which specific potential participant is better able to negotiate more favorable terms relative to other participants. Once the threshold is reached, and those participants are committed to the cooperative, the negotiating leverage of any additional participants would be expected to be more directly related to the QS holdings or other assets (e.g., vessel with high harvesting/processing capacity) that may be of direct financial interest to the cooperative members. Under the most extreme example, as indicated in Table 1 under Alternative 4, suboption 4, several QS holders could form cooperatives independent of other QS holders and the negotiating leverage of QS holders who are unable to form cooperatives independently may be diminished relative to those QS holders able to independently form a cooperative.

However, when compared to the status quo it is not clear that changing the cooperative standards would necessarily disadvantage participants who are more constrained by the GRS. Table 2 shows that under the status quo several multiple vessel companies could form a cooperative and exclude all other smaller QS holders, or single vessel owners. The single cooperative that has formed in 2008, 2009, and 2010 (see Table 2) contains several more members than are necessary to meet the cooperative formation standards. If the cooperative formation standards are relaxed it is not clear that this would adversely affect the negotiating position of participants who have chosen to participate under the current cooperative structure. In fact, it may provide additional negotiating leverage to smaller QS holders or single vessel owners if they have multiple options available to them. Other dynamics may exist between harvesters that favor a larger cooperative structure, but it is not clear how changing the cooperative formation standards would adversely affect those dynamics. Generally, under all alternatives, including the status quo, one would expect QS holders who hold only one QS permit (i.e., own one vessel) to have diminished negotiating leverage relative to QS holders with multiple permits because they are not able to contribute as many QS permits to help meet the minimum QS permit formation standard.

The extent to which specific alternatives would advantage or disadvantage the negotiating leverage of specific fishery participants is not possible to predict quantitatively. The factors that affect the decision to establish a cooperative include numerous subjective and variable factors. Generally, one would expect that less strict cooperative formation standards might provide greater opportunities for cooperatives to form, in general, and greater opportunities for any specific participant to find

arrangements that allow them to participate in a cooperative. It is not clear that relaxing the cooperative formation standards reduces the negotiating leverage a participant may have under the status quo alternative as the third unique QS holder or ninth QS permit under the status quo alternative. Overall, one would expect that relaxing the cooperative formation standard would provide a greater likelihood that a greater proportion of the TAC and PSC assigned to the Amendment 80 sector is harvested under cooperative management. Similarly, allowing all members to join a cooperative would provide increased potential for greater cooperative participation.

Whether cooperatives actually form under any alternative would likely depend on a wide range of factors. These include pre-existing business relationships, the ability to establish mutually agreeable contracts on data sharing and civil enforcement of cooperative contract provisions, whether the fishing operations of the companies created unproductive intra-cooperative competition, the viability of the limited access fishery or forgoing fishing in the BSAI for opportunities in the GOA as an outside option for any potential cooperative participant, and the potential risk or advantage of the participation of a specific vessel operation in ensuring that the cooperative overall would be able to meet the GRS.

2.5.2 Effects of the Alternatives on Fishing Patterns in the Amendment 80 sector

This analysis assumes that vessels fishing under a cooperative will realize benefits of LAPP management including a strong incentive to reduce the race for fish. Based on a preliminary review of the 2008 season, and past experience with similar cooperative based management (e.g., AFA cooperatives, Central GOA Rockfish Program, and BSAI Crab Rationalization Cooperatives) participation in a cooperative is likely to allow optimization of harvest rates for product recovery and quality, reduce incentives to operate in adverse weather conditions, and streamline operations to maximum profits. It is possible that participants in the limited access fishery could choose to coordinate their fishing operations and voluntarily form a private contractually-based arrangement to assign a portion of the TAC. However, that voluntary arrangement did not occur during 2008 among limited access fishery participants, does not appear to have been established for 2009, and there is little to suggest such an arrangement would occur in the future.

Alternatives 2 through 6 would be expected to increase the potential that a greater proportion of the catch is harvested under cooperative management. The analysis assumes that alternatives other than the status quo with more restrictive cooperative formation standards would have a lower potential to encourage cooperative management (i.e., Alternative 2, suboption 1) versus those alternatives with less restrictive criteria (i.e., Alternative 4, suboption 4, or Alternative 6). This analysis does not attempt to predict which specific alternative would maximize the potential for cooperative fishing given the lack of any quantitative data.

Because vessels operating in a cooperative receive exclusive, and binding, allocations of PSC, this analysis assumes fishing under a cooperative would have a greater incentive than vessels fishing in the limited access fishery to engage in fishing patterns that may reduce PSC use such as attempting to use halibut excluder devices. In addition, because Alternatives 2 through 6 would be expected to increase the potential for cooperative formation, fewer vessels, and possibly no vessels, would be expected to participate in the limited access fishery. It is possible that vessels that if cooperative

formation standards are relaxed so that cooperatives held by one company are allowed to form, the incentive to reduce bycatch may be somewhat diminished to the extent that a multi-company cooperative is likely to have stringent contractual requirements on its members to minimize their bycatch. However, any cooperative, regardless of its membership, is constrained by its allocations of PSC and the potential that a single company cooperative would be less attentive to PSC would be likely to be only the marginal difference between the potential constraints imposed by a multi-party contract and the allocation that a cooperative receives. Generally, the fewer vessels participating in the limited access fishery would be expected to reduce the risk that NMFS managers would fail to close the limited access fishery in time, potentially exceeding the TAC. Again, there are no quantitative data available to assess the potential distinctions that may exist among alternatives.

2.5.3 Potential Effects on Net Benefits to the Nation

Overall, this action is likely to have a limited effect on net benefits realized by the Nation, *ceteris paribus*. Generally, Alternatives 2 through 6 would be expected to encourage cooperative formation, and therefore may encourage fishing practices that are more likely to result in fully harvesting the TAC assigned to the Amendment 80 sector. To the extent that increased participation in cooperatives allows harvesters additional time to focus on improving product forms, there may be some slight consumer benefits realized by the proposed action if the proposed alternatives reduce the risk that a specific harvester, or group of harvesters, would otherwise be unable to participate in a cooperative. Conceivably, the proposed alternatives may increase the economic efficiency of that harvester. An additional potential benefit may result if vessels now active in the limited access fishery formed a cooperative and were able to trade CQ with other cooperatives to maximize their harvest. Currently, the Amendment 80 Program does not allow unharvested TAC assigned to the limited access fishery to be reallocated to a cooperative. If multiple cooperatives form rather than a cooperative and a limited access fishery, CQ could be shared among cooperatives as necessary to maximize their harvest.

Generally, cooperative management reduces management costs to NMFS because cooperatives undertake actions to ensure their allocation is not exceeded, whereas under a limited access fishery, NMFS assumes that management burden and its associated costs. Alternatives 2 through 6 are likely to reduce management costs overall relative to the status quo option to the extent they result in less participation in the limited access fishery. Again, the lack of any quantitative data makes it difficult to assess the relative differences in net benefits among the alternatives.

2.5.4 Potential Effects on Management, Enforcement, and Safety

As noted under the effects on net benefits, Alternatives 2 through 6 may reduce some management costs. Enforcement of Alternatives 2 through 6 would not be expected to differ from the status quo because NMFS would continue to require the same catch accounting and reporting protocols regardless of how the cooperative formation standards are changed. The GRS suboption may require some changes in enforcement if this alternative were selected in conjunction with one of the other alternatives. Specifically, under this alternative NMFS would need to monitor the overall retention rates of all

cooperatives and determine whether this aggregate retention rate should be applied to all cooperatives. This is not likely to be a substantially greater burden than current GRS monitoring and enforcement currently, assuming that this alternative is applied as described in Section 2.4.6 of this analysis.

Safety is not likely to be effected substantially under any of the alternatives under consideration. Specifically, under each of the alternatives, all vessels are required to comply with minimum safety standards under USCG regulations. Although vessels fishing in cooperatives are likely to have reduced incentives to engage in a potentially dangerous race for fish, and easing cooperative formation standards may encourage greater participation in cooperative management, NMFS does not have quantifiable data to conclude that Alternatives 2 through 6 would result in fishing practices that are substantially different than exist under the limited access fishery, or the status quo option for cooperative formation.

2.5.5 Potential Effects on Fishing Crew and Communities

None of the alternatives would be expected to result in changes in effects to fishing communities or crew. The Amendment 80 sector did not appear to consolidate, or otherwise decrease the number of active vessels, or crew, through deliberative action during the first year of the program, and there is no evidence that such patterns have emerged in 2009. Vessel operations, including the number of crew, crew payments, vessel offloading patterns, time in port, supply and fuel purchases or other factors that may affect communities are not known for the period prior to and after implementation of the Amendment 80 Program. In addition, there is no information available to suggest that modifying cooperative formation standard would affect crew or communities in ways that differ from the status quo. NMFS has no information to suggest that payment to crew differ between cooperative or limited access fishery vessels, or that changing cooperative formation standards would result in any changes.

3 ENVIRONMENTAL ASSESSMENT

The purpose of this section is to analyze the environmental impacts of the proposed Federal action to modify cooperative formation standards under the Amendment 80 Program. An environmental assessment (EA) is intended, in a concise manner, to provide sufficient evidence of whether or not the environmental impacts of the action is significant (40 CFR 1508.9).

Three of the four required components of an environmental assessment are included below. These include brief discussions of: the purpose and need for the proposal (Section 3.1), the alternatives under consideration (Section 3.2), and the environmental impacts of the proposed action and alternatives (Section 3.3). The fourth requirement, a list of agencies and persons consulted, is provided in Sections 6, 7, and 8 of this document.

3.1 Purpose and Need

The Council has identified the following purpose and need for the proposed action. Further background information and detail on the intent of the proposed action is provided in Section 2 of this document.

Most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program. However, some participants have expressed concern that over the long term, cooperative formation standards may disadvantage them, and they may be constrained from establishing cooperative relationships, receiving and exclusive annual harvest allocation, and ending the “race for fish.” Smaller vessel owners with limited QS are likely to have weakened negotiating leverage as the groundfish retention standard (GRS) increases if they cannot be competitive in the limited access fishery and options in the Gulf of Alaska (GOA) are not viable. Participants of any size will find it difficult to receive the benefits of cooperative management if they cannot reach agreement on negotiated terms and the limited access fishery is an unattractive outside option, or a cooperative is able to derive some benefit from forcing an entity into the limited access fishery.

Relaxing cooperative formation standards either by reducing the number of quota share (QS) permits that must be assigned, or the number of owners required could: (1) provide additional opportunities to QS holders to form cooperatives because more relationships are possible; (2) diminish the negotiating leverage of vessel owners who may be necessary to meet the threshold requirements under more stringent cooperative formation standards; (3) reduce the potential risk of any one company being unable to negotiate settlement and be able to fish only in the limited access fishery; and (4) reduce the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative.

3.2 Description of Alternatives

Six primary alternatives have been identified for analysis. Alternative 1 is the no action alternative. Alternative 2 would reduce the number of unique QS holders required to form a cooperative from three to two or one unique QS holder. Alternative 3 would reduce the number of QS permits required to form a cooperative from the existing 9 permits to some lower range (e.g., three permits to the existing 9 permits). Alternative 4 would reduce both the number of unique QS holders and the number of QS permits required to form a cooperative (combination of Alternatives 2 and 3 above). Alternative 5 would allow a cooperative to form under the status quo requirements (e.g., nine QS permits, 3 QS holders) or with a single or collective group of entities that represent 20 %, 25%, or 30% of the sector QS. Alternative 6 would require that a cooperative accept all otherwise eligible members. The GRS suboption would be applied in aggregate to all cooperatives if this calculation meets or exceeds the GRS requirement. A detailed description of these alternatives is in Section 2 of this document. A summary table outlining the three alternatives, components, and options considered is provided below (Table 18).

Table 18: Alternatives and Suboptions for Cooperative Formation				
Alternative	Suboption	Minimum number of unique QS holders required	Minimum number of QS permits required	Maximum number of cooperatives that could form
Alternative 1: Status quo	N/A	3	9	3
Alternative 2: Fewer unique QS holders	Suboption 1: 2 unique QS holders	2	9	3
	Suboption 2: 1 unique owner	1	9	3
Alternative 3: Fewer QS permits	Suboption 1: 6 QS permits	3	6	4
	Suboption 2: 3 QS permits	3	3	9
Alternative 4: Fewer unique QS holders and Fewer QS permits	Suboption 1: 2 QS holders and 6 QS permits	2	6	4
	Suboption 2: 2 QS owners and 3 QS permits	2	3	9
	Suboption 3: 1 QS holder and 6 QS permits	1	6	4
	Suboption 4: 1 QS holder and 3 QS permits	1	3	9
Alternative 5: Status Quo or Minimum QS holding to form cooperative	Suboption 1: Status quo or 30 % of QS pool	3 or 1	N/A	3 or 3
	Suboption 2: 25 % of QS pool	3 or 1	N/A	3 or 4
	Suboption 3: 20 % of QS pool	3 or 1	N/A	3 or 5
Alternative 6: Accept all eligible members	N/A	3	9	3

3.3 Probable Environmental Impacts

This section estimates the effect of the alternatives on the biological, physical, and human environment. The alternatives establish threshold criteria for establishing an Amendment 80 cooperative.

The physical and biological effects of the alternatives on the environment and animal species are discussed together in Section 3.3.1. Economic and socioeconomic effects of the alternatives are primarily analyzed in the RIR in Section 2.4, but are summarized in Section 3.3.2. Cumulative effects are addressed in Section 3.3.6.

3.3.1 Physical and Biological Impacts

3.3.1.1.1 Alternative 1

Alternative 1 represents the status quo, with no changes made to the management of the Amendment 80 cooperative formation standards. Status quo groundfish fishing is annually evaluated in the environmental assessment that supports decision-making on annual harvest specifications for the BSAI and GOA groundfish fisheries (NMFS 2006). The EA evaluates all physical and biological resources affected by the groundfish fisheries, and describes the impact of the fisheries. A “beneficial” or “adverse” impact

leaves the resource in better or worse, respectively, condition than it would be in an unfished condition. “Significant” impacts are those adverse or beneficial impacts that meet specified criteria for each resource component, but generally are those impacts that affect the species population outside the range of natural variability, and which may affect the sustainability of the species or species group.

The analysis of Alternative 2 in NMFS (2006), which describes status quo fishing, is incorporated by reference. The EA finds that under status quo groundfish fishery management there is a low probability of overfishing target species, or generating significant adverse impacts to fish species generally (target, non-specified, forage, or prohibited species). Direct and indirect effects on marine mammals and seabirds have been identified as adverse but not significant, and effects on essential fish habitat are minimal and temporary. Effects on ecosystem relationships are also analyzed as adverse but not significant.

3.3.1.1.2 Alternatives 2 through 6

The net effect of Alternatives 2 through 5 are to reduce the number of QS holders required to form a cooperative (Alternative 2), the number of QS permits required (Alternative 3), the number of QS holders and QS permits (Alternative 4), or establish a minimum amount of QS that would need to be assigned to a cooperative to allow it to form (Alternative 5). Alternative 6 would allow any member to join a cooperative if otherwise eligible. The alternatives contain various options, but generally increase the potential number of cooperatives that can form and reduce the thresholds to form those cooperatives, or provide an ability for all members to join a cooperative as outlined in Section 2.2 and discussed in Sections 2.4 and 2.5 of this document.

Section 2.4 describes the number of cooperatives that could form and the potential impacts on harvester negotiations under the specific combination of options selected under these alternatives. In terms of effects on the physical and biological environment, however, the effect of these alternatives are likely to be the same as Alternative 1. Under these alternatives, vessels may have increased incentives to join a cooperative, but the ability for a vessel to join a cooperative would not increase the amount of the status quo level of fishing that has been analyzed by NMFS (2006) and determined to have no significant adverse impacts on fish species, marine mammals, seabirds, habitat, or ecosystem relationships. Under Alternatives 2 through 6 of the action alternatives, the status quo level of fishing activity would continue. As a result, there are no significant adverse impacts expected under these alternatives.

Effects on target species from this potential increase in the number of participants in a cooperative should not be significant. The TAC is determined annually based on the carrying capacity of target species, and effective monitoring and enforcement are in place to ensure that TACs are not exceeded. Therefore, regardless of the potential increase in the number of vessels participating in a cooperative, the TAC of target species will not increase under this component, nor will the alternatives increase the likelihood that the TAC will be exceeded. In fact, Alternatives 2 through 6 may reduce an already minimal risk that the TAC could be exceeded, by encouraging a greater cooperative formation.

Changes in interactions with other fish species, marine mammals, seabirds, habitat, and ecosystem relations are tied to changes in target fishery effort. Vessels would

still have to comply with existing Federal regulations protecting Steller sea lion rookeries and haulouts.⁴⁹

None of the Alternatives could be considered a change in the action upon which the last ESA Section 7 consultation was based, NOAA Fisheries, Protected Resources Division Given the fact that fishing activity would not increase under Alternatives 2 through 6, and the measures currently in place to protect the physical and biological environment, the potential effect of Alternatives 2 through 6 on an ecosystem scale is very limited. As a result, no significant adverse impacts to marine mammals, seabirds, habitat, or ecosystem relations are anticipated.

GRS Suboption

The GRS suboption would not be expected to have an effect on target species, interactions with other fish species, marine mammals, seabirds, habitat, and ecosystem relations because this action would merely modify a calculation of total annual retention of groundfish after the end of a fishing year.

3.3.2 Economic and Socioeconomic Impacts

The economic and socioeconomic impacts of the proposed amendment are addressed in the Regulatory Impact Review, Section 2 of this report. Alternatives 2 through 6 have very similar general effects, only the number of cooperatives that could be formed and the potential dynamics of cooperative formation negotiations changes with each alternative. The GRS suboption under all of the alternatives would not be expected to have any economic or socioeconomic effect substantially different than the status quo because it would only alter the computation of the GRS, but not fishing practices in any discernable way.

3.3.3 Cumulative Impacts

Analysis of the potential cumulative effects of a proposed action and its alternatives is a requirement of NEPA. Cumulative effects are those combined effects on the quality of the human environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what Federal or non-Federal agency or person undertakes such other actions (40 CFR 1508.7, 1508.25(a), and 1508.25(c)). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The concept behind cumulative effects analysis is to capture the total effects of many actions over time that would be missed by only evaluating each action individually. At the same time, the CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action on the universe but to focus on those effects that are truly meaningful.

The 2004 Final Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement (Groundfish PSEIS; NOAA 2004) assesses the potential direct and indirect effects of groundfish FMP policy alternatives in combination with other factors that affect physical, biological and socioeconomic resource components of the BSAI and GOA environment. To the extent practicable, this analysis incorporates by

⁴⁹See <http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm> for regulations and maps.

reference the cumulative effects analysis of the Groundfish PSEIS, including the persistent effects of past actions and the effects of reasonable foreseeable future actions. Beyond the cumulative impacts analysis documented in the Groundfish PSEIS, no additional past, present, or reasonably foreseeable cumulative negative impacts on the biological and physical environment (including fish stocks, essential fish habitat, ESA-listed species, marine mammals, seabirds, or marine ecosystems), fishing communities, fishing safety, or consumers have been identified that would accrue from the proposed action. Cumulatively significant negative impacts on these resources are not anticipated as a result of the proposed action because no negative direct or indirect effects on the resources have been identified.

While there are no expected cumulative adverse impacts on the biological and physical environment, fishing communities, fishing safety, or consumers, there may be economic effects on the groundfish fishery sectors as a result of the proposed action in combination with other actions. As discussed below, participants in the groundfish fishery sectors, specifically the Amendment 80 sector, have experienced several regulatory changes in the past several years that have affected their economic performance. Moreover, a number of reasonably foreseeable future actions are expected to affect the socioeconomic condition of these sectors.

3.3.4 Past and Present Actions

The cumulative impacts from past management actions are one of the driving forces for support of the proposed amendment. Other fisheries in the region have been subject to increasingly restrictive management measures, with exclusive fishing privileges being the basis for most actions. Some of the management actions that have contributed to the existing conditions are listed below:

- the IFQ Program for the halibut and sablefish fisheries;
- implementation of the American Fisheries Act, which allocates the BSAI pollock fishery among specified trawl vessels;
- the BSAI crab rationalization program;
- the Central GOA rockfish pilot program, initially approved for two years but recently extended under reauthorization of the Magnuson-Stevens Act;
- adoption of Amendment 79 which implemented the GRS;
- adoption of BSAI Amendment 80, which allocates several BSAI non-pollock trawl groundfish species among trawl fishery sectors and facilitates the formation of harvesting cooperatives in the non-AFA trawl CP sector; and
- adoption of Amendment 85 which allocated Pacific cod among fishery sectors in the BSAI;
- adoption of Amendment 90 that would allow cooperatives to exchange catch after delivery.
- adoption of Amendment 92/78 which would remove trawl endorsements from LLP licenses that have not met minimum recent landing standards.

3.3.5 Reasonably Foreseeable Future Actions

Analyses are being developed to consider clarifying standards for replacing an Amendment 80 vessel if lost or permanently ineligible to be used. The Council

scheduled the vessel replacement amendment package for initial review in February 2009. The Council previously began the process to evaluate a comprehensive rationalization program for Gulf of Alaska groundfish, but that program has been delayed and is not on the Council's near-term agenda. The vessel replacement provisions under consideration do not alter cooperative formation standards considered here, because vessels can be replaced currently under the provisions of *Arctic Sole Seafoods v. Gutierrez*. These actions would not affect the implementation of the proposed amendment.

3.3.6 Summary of Cumulative Effects

As noted above, the cumulative effects of past management decisions are the primary reason for the proposed amendment. The proposed amendment, in itself, is not expected to adversely affect the fisheries sectors (harvesting or processing), market conditions, or communities.

4 INITIAL REGULATORY FLEXIBILITY ANALYSIS

4.1 Introduction

This Initial Regulatory Flexibility Analysis (IRFA) addresses the statutory requirements of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 601-612). This IRFA evaluates the potential adverse economic impacts on small entities directly regulated by the proposed action.

The RFA, first enacted in 1980, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are: (1) to increase agency awareness and understanding of the impact of their regulations on small business, (2) to require that agencies communicate and explain their findings to the public, and (3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse economic impacts on small entities as a group distinct from other entities, and on the consideration of alternatives that may minimize adverse economic impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either 'certify' that the action will not have a significant adverse economic impact on a substantial number of small entities, and support that certification with the 'factual basis' upon which the decision is based; or it must prepare and make available for public review an IRFA. When an agency publishes a final rule, it must prepare a Final Regulatory Flexibility Analysis (FRFA).

In determining the scope, or 'universe', of the entities to be considered in an IRFA, NMFS generally includes only those entities that can reasonably be expected to be directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, of the industry (e.g., user group, gear type,

geographic area), that segment would be considered the universe for the purpose of this analysis.

Data on cost structure, affiliation, and operational procedures and strategies in the fishing sectors subject to the proposed regulatory action are insufficient, at present, to permit preparation of a ‘factual basis’ upon which to certify that the preferred alternative does not have the potential to result in a “significant adverse economic impact on a substantial number of small entities,” as defined under the RFA. Because, based upon all available information, it is not possible to ‘certify’ this outcome, should the proposed action be adopted by the Secretary, a formal IRFA, focusing on the complete range of available alternatives (including the Councils’ preferred alternative), has been prepared and is included in this package for Secretarial review.

4.2 IRFA requirements

Under 5 U.S.C., Section 603(b) of the RFA, each IRFA is required to contain:

- A description of the reasons why action by the agency is being considered;
- A succinct statement of the objectives of, and the legal basis for, the proposed rule;
- A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);
- A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule;
- A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the proposed action, consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:
 1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 2. The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
 3. The use of performance, rather than design standards;
 4. An exemption from coverage of the rule, or any part thereof, for such small entities.

In preparing an IRFA, an agency may provide either a quantifiable or numerical description of the effects of a proposed action (and alternatives to the proposed action), or more general descriptive statements, if quantification is not practicable or reliable.

4.3 Definition of a small entity

The RFA recognizes and defines three kinds of small entities: (1) small businesses, (2) small non-profit organizations, and (3) small government jurisdictions.

Small businesses. Section 601(3) of the RFA defines a ‘small business’ as having the same meaning as ‘small business concern’, which is defined under Section 3 of the Small Business Act. ‘Small business’ or ‘small business concern’ includes any firm that is independently owned and operated and not dominant in its field of operation. The SBA has further defined a “small business concern” as one “organized for profit, with a place of business located in the United States, and which operates primarily within the United States or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials or labor...A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the firm is a joint venture there can be no more than 49 percent participation by foreign business entities in the joint venture.”

The SBA has established size criteria for all major industry sectors in the United States, including fish harvesting and fish processing businesses. Effective January 5, 2006, a business involved in fish harvesting is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates), and if it has combined annual gross receipts not in excess of \$4.0 million for all its affiliated operations worldwide.⁵⁰ A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation, and employs 500 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the \$4.0 million criterion for fish harvesting operations. Finally, a wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

The SBA has established “principles of affiliation” to determine whether a business concern is “independently owned and operated.” In general, business concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized

⁵⁰Effective January 6, 2006, SBA updated the Gross Annual Receipts thresholds for determining "small entity" status under the RFA. This is a periodic action to account for the impact of economic inflation. The revised threshold for "commercial fishing" operations (which, at present, has been determined by NMFS HQ to include catcher-processors, as well as catcher vessels) changed from \$3.5 million to \$4.0 million in annual gross receipts, from all its economic activities and affiliated operations, worldwide.

for profit, in determining the concern's size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community Development Corporations authorized by 42 U.S.C. 9805 are not considered affiliates of such entities, or with other concerns owned by these entities solely because of their common ownership.

Affiliation may be based on stock ownership when: (1) a person is an affiliate of a concern if the person owns or controls, or has the power to control 50 percent or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) if two or more persons each owns, controls or has the power to control less than 50 percent of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors, or general partners, controls the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations. The RFA defines "small organizations" as any not-for-profit enterprise that is independently owned and operated, and is not dominant in its field.

Small governmental jurisdictions. The RFA defines "small governmental jurisdictions" as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.4 Reason for considering the proposed action

The Council adopted the following purpose and need statement in June, 2008:

Most participants in the Amendment 80 sector have successfully established a cooperative in the first year of the program. However, some participants have expressed concern that over the long term, cooperative formation standards may disadvantage them, and they may be constrained from establishing cooperative relationships, receiving an exclusive annual harvest allocation, and ending the "race for fish." Smaller vessel owners with limited QS are likely to have weakened negotiating leverage as the groundfish retention standard (GRS) increases if they cannot be competitive in the limited access fishery and options in the Gulf of Alaska (GOA) are not viable. Participants of any size will find it difficult to receive the benefits of cooperative management if they cannot reach agreement on negotiated terms and the limited access fishery is an unattractive outside option, or a cooperative is able to derive some benefit from forcing an entity into the limited access fishery.

Relaxing cooperative formation standards either by reducing the number of quota share (QS) permits that must be assigned, or the number of owners required could: (1) provide additional opportunities to QS holders to form

cooperatives because more relationships are possible; (2) diminish the negotiating leverage of vessel owners who may be necessary to meet the threshold requirements under more stringent cooperative formation standards; (3) reduce the potential risk of any one company being unable to negotiate settlement and be able to fish only in the limited access fishery; and (4) reduce the incentive for members of a cooperative to attempt to create conditions that are unfavorable for certain fishery participants to form a cooperative.

4.5 Objectives of proposed action and its legal basis

Under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Secretary of Commerce and in the Alaska region, the North Pacific Fishery Management Council, have the responsibility to prepare fishery management plans and associated regulations for the marine resources found to require conservation and management. NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine fish, including the publication of Federal regulations. The Alaska Regional Office of NMFS, and Alaska Fisheries Science Center, research, draft, and support the management actions recommended by the Council.

The groundfish fisheries in the BSAI and GOA are managed under two fishery management plans: the Bering Sea and Aleutian Islands Groundfish Fishery Management Plan and the Gulf of Alaska Groundfish Fishery Management Plan. The proposed action is a Federal regulatory amendment; the fisheries that would be affected occur within the EEZ waters administered under the BSAI FMP. The proposed action would modify the criteria necessary for holders of Amendment 80 QS to form a cooperative and fish under a limited access privilege program. The intent is to provide additional incentives for Amendment 80 participants to improve their economic and structural stability by ending the race for fish.

There are several suboptions under the action alternatives. The range of alternatives, and suboptions considered under this amendment package is provided in Table 1 in Section 2 of this document.

4.6 Number and description of directed regulated small entities

Information concerning ownership of vessels and processors, and QS holdings that would be used to estimate the number of small entities that are directly regulated by this action, is somewhat limited, as is typically the case for NPFMC analyses. To estimate the number of small versus large entities, gross earnings from all fisheries of record for 2007 were matched with the vessels, the known ownership of those vessels, and the known affiliations of those vessels in the BSAI or GOA groundfish fisheries for that year. NMFS has specific information on the ownership of vessels and the affiliations that exist based on data provided by the Amendment 80 sector, as well as a review of ownership data independently available to NMFS on Federal Fisheries Permit and LLP applications. The vessels with a common ownership linkage, and therefore affiliation, are reported in Table 2 in section 2 of this document. In addition, those vessels that are assigned to a cooperative and receive an exclusive harvest privilege would be categorized as large entities for the purpose of the RFA, under the principles of affiliation, due to their participation in a harvesting cooperative. (Note that 2008 is the most recent

available dataset for ownership, catch, and revenue data at the time that this IRFA was prepared).

Potentially, 28 non-AFA trawl catcher processors could generate Amendment 80 QS, based on the provisions of the Amendment 80 Program. Those persons who apply for and receive Amendment 80 QS are eligible to fish in the Amendment 80 sector, and those QS holders would be directly regulated by the proposed action. Vessels that are assigned Amendment 80 QS and that are eligible to fish in the Amendment 80 sectors are commonly known as Amendment 80 vessels. Currently, there are 27 Amendment 80 vessels that would be directly regulated based on this action. One vessel owners who could be eligible for the Amendment 80 Program and could apply for Amendment 80 QS has not done so, and would not be directly regulated by the proposed action. Based on the known affiliations and ownership of the Amendment 80 vessels, all but one of the Amendment QS holders would be categorized as a large entities for the purpose of the RFA, under the principles of affiliation, due to their participation in a harvest cooperative or through known ownership of multiple vessels, co-ownership and “shares” ownership among vessels, and other economic and operational affiliations. Thus, this analysis estimates that only one small entity would be directly regulated by the proposed action. It is possible that this one small entity could be linked by company affiliation to a large entity, which may then qualify that entity as a large entity, but complete information is not available to determine any such linkages.

4.7 Recordkeeping and reporting requirements

Recordkeeping and reporting requirements are not expected to change as a result of the proposed action. The action under consideration requires no additional reporting, recordkeeping, or other compliance requirements that differ from the status quo.

4.8 Relevant Federal rules that may duplicate, overlap, or conflict with the proposed action

No relevant Federal rules have been identified that would duplicate or overlap with the proposed action under any of the proposed alternatives.

4.9 Description of significant alternatives to the proposed action

An IRFA also requires a description of any significant alternatives to the preferred alternative that accomplish the stated objectives, are consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities.

The suite of potential actions includes six alternatives. Alternative 1 is the no action alternative. Alternative 2 would reduce the number of unique QS holders required to form a cooperative from three to two or one unique QS holder. Alternative 3 would reduce the number of QS permits required to form a cooperative from the existing 9 permits to some lower range (e.g., three permits to the existing 9 permits). Alternative 4 would reduce both the number of unique QS holders and the number of QS permits required to form a cooperative (combination of Alternatives 2 and 3 above). Alternative 5 would allow a cooperative to form under the status quo requirements or with a single or collective group of entities that represent 20%, 25%, or 30% of the sector QS. Alternative 6 would require a cooperative to accept any otherwise eligible member. A

detailed description of these alternatives is in Section 2 of this document. A summary table outlining the six alternatives, components, and options considered is provided above (Table 1).

There are several suboptions under the potential actions. The range of alternatives, and suboptions considered under this amendment package is provided in Section 2 of this document.

The primary intent of the amendment is to provide additional incentives and opportunities for a greater proportion of the Amendment 80 sector to participate in a cooperative management under the Amendment 80 Program. Within the universe of small entities that are the subject of this IRFA, it is not clear that any of the proposed alternatives would have an adverse impact on small entities.

Based upon the best available scientific data and information, and consideration of the objectives of this action, one may draw the following conclusion. It appears that there are no alternatives to the proposed action which have the potential to accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable statutes and that have the potential to minimize any significant adverse economic impact of the proposed rule on directly regulated small entities.

5 CONSISTENCY WITH APPLICABLE LAW AND POLICY

This section examines the consistency of cooperative formation standard alternatives with the National Standards and Fishery Impact Statement requirements in the Magnuson-Stevens Act and Executive Order 12866.

5.1 National Standards

Below are the ten National Standards as contained in the Magnuson-Stevens Act, and a brief discussion of the consistency of the proposed alternatives with each of those National Standards, as applicable.

National Standard 1

Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

None of the alternatives considered in this action would affect overfishing of groundfish in the BSAI or GOA. The alternatives would also not affect, on a continuing basis, the ability to achieve the optimum yield from each groundfish fishery.

National Standard 2

Conservation and management measures shall be based upon the best scientific information available.

The analysis for this amendment is based upon the most recent and best scientific information available. It was necessary for NMFS staff to develop a series of new databases to complete the analyses contained herein.

National Standard 3

To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The proposed action is consistent with the management of individual stocks as a unit or interrelated stocks as a unit or in close coordination.

National Standard 4

Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

The proposed alternatives treat all QS holders the same. The proposed alternatives would be implemented without discrimination among participants and are intended to promote conservation of the groundfish resources in the BSAI and GOA.

National Standard 5

Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

This action will potentially provide greater opportunities for QS holders to participate in cooperative management. To the extent that cooperative management reduces the race for fish it will improve efficiency in utilization of the trawl groundfish resource in the BSAI.

National Standard 6

Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

None of the proposed alternatives are expected to affect the availability of and variability in the groundfish resources in the BSAI and GOA in future years. The harvest would be managed to and limited by the TACs for each species, regardless of the proposed action considered in this amendment.

National Standard 7

Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

This action would not impose additional costs for compliance, and does not duplicate any other management action.

National Standard 8

Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

This action is not expected to have adverse impacts on communities or affect community sustainability, primarily because it is unlikely that any alternative would result in extinguishing harvest opportunities for vessels with a high degree of economic dependence upon the trawl groundfish fisheries. This action would not remove the ability of fishing vessels, communities, or crew to continue to sustain participation in the Amendment 80 fishery.

National Standard 9

Conservation and management measures shall, to the extent practicable, (A) minimize bycatch, and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

This proposed amendment could help to minimize bycatch by providing additional incentives for harvesters to participate in a cooperative and realize the potential benefits of limited access privilege programs.

National Standard 10

Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The alternatives proposed should have no effect on safety at sea, except to the extent that they could encourage participants to choose to join a form of cooperative management that may provide incentives for the participants in that cooperative to end the race for fish and engage in fishing behavior that is less likely to put a vessel or crew in adverse conditions.

5.2 Section 303(a)(9) – Fisheries Impact Statement

Section 303(a)(9) of the Magnuson-Stevens Act requires that any management measure submitted by the Council take into account potential impacts on the participants in the fisheries, as well as participants in adjacent fisheries. The impacts on participants in the trawl groundfish fisheries in the BSAI and GOA have been discussed in previous sections of this document (see Section 2). The proposed action is not anticipated to have effects on participants in other fisheries.

6 REFERENCES

Best Use Cooperative (BUC). 2009. 2008 Cooperative Report.

- NMFS. 2008. Stock Assessment and Fishery Evaluation Report for the Groundfish Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands Area: Economic Status of the Groundfish Fisheries off Alaska, 2006. NOAA Fisheries, Alaska Fisheries Science Center.
- NMFS. 2009. BSAI and GOA Harvest Specifications for 2008-2009. Environmental Assessment (EA) and Final Regulatory Flexibility Analysis (FRFA). NOAA NMFS Alaska Region Office, Juneau, Alaska. January 2009.
- NMFS. 2004. Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement, U.S. Dept. of Commerce, NOAA Fisheries, Alaska Region. June 2004.
<http://www.fakr.noaa.gov/sustainablefisheries/seis/intro.htm>.
- NRC, 1999. *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas*. National Academy Press.
- NPFMC, 2005. Final EA/RIR/FRFA, Amendment 68 to the GOA FMP. October 1, 2005.
<http://www.fakr.noaa.gov/index/analyses/analyses.asp>
- NPFMC, 2005. Final EA/RIR/FRFA, Amendment 79 to the BSAI FMP. December 1, 2005.
<http://www.fakr.noaa.gov/index/analyses/analyses.asp>
- NPFMC, 2007. Final EA/RIR/FRFA, Amendment 80 to the BSAI FMP. July 20, 2007.
<http://www.fakr.noaa.gov/index/analyses/analyses.asp>
- NPFMC, 2007. Final EA/RIR/FRFA, Amendment 85 to the BSAI FMP. August 1, 2007.
<http://www.fakr.noaa.gov/index/analyses/analyses.asp>

7 LIST OF PREPARES AND CONTRIBUTORS

Glenn Merrill
 Steve Whitney
 Dr. Mark Fina, Ph.D.
 Dr. Lewis Quierolo, Ph.D.

8 LIST OF PERSONS CONSULTED

Jason Anderson, BUC
 Dave Benson, Trident Seafoods
 Julie Bonney, AGDB
 Tracy Buck, NMFS RAM
 Mary Furuness, NMFS Inseason Management
 John Gruver, UCB
 Bill McGill, FCA
 Bill Orr, BUC
 LCDR, Lisa Ragone, USCG 17th District
 Susan Robinson, Fishermen's Finest
 Sue Salveson, NMFS AKR SF
 Lori Swanson, Groundfish Forum
 Mike Szymanski, FCA
 Dave Wood, U.S. Seafoods