

## 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 in the 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 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 drive 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.

Amendment 80 also modified the application of a groundfish retention standard (GRS) that apply 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 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 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. Therefore, vessels with poorer retention rates may have an incentive to join a cooperative with other vessels have a better retention rate and are able to offset the lower retention rate of those vessels. Similarly, vessels with a higher retention rate may be desirable as cooperative members because their retention rate may help ensure the cooperative meets the GRS. Vessels participating in the limited access fishery may have greater 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 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” 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.

### **Purpose and Need and Alternatives**

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. The draft purpose and need statement is presented below:

#### 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 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.

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 single or collective group of entities that represent 20, 25 or 30% of the sector QS.
- **Alternative 6:** Allow the GRS to be applied in aggregate to all cooperatives if this calculation meets or exceeds the GRS requirement.

Under Alternative 3, the Council did not provide specific suboptions for the minimum number of QS permit required to form a cooperative. **This analysis proposes to analyze suboptions for 3 QS permits, and 6 QS permits for ease of analysis and to provide additional focus. The Council should provide additional guidance to staff if these options are not deemed appropriate.**

Under Alternative 4, the Council did not provide specific guidance on specific combinations of the number of unique QS holders and QS permits that should be considered. **For ease of analysis and to provide adequate contrast, the suboptions presented under Alternative 4 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). The Council should provide additional guidance to staff if these options are not appropriate.**

Under Alternative 5, the phrasing of the alternative suggests that there is no requirement for a specific number of QS holders, only that a minimum amount of QS is assigned to the cooperative in order for it to form. **The Council should correct this interpretation if it is inconsistent with its intent of this alternative.**

Alternative 6 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. Although the structure of the alternatives suggests that Alternative 6 could be selected by the Council as a preferred alternative, it may be more appropriately redesignated as a suboption which could be applied to any of the cooperative standards under Alternatives 1 through 5. As a stand alone alternative, Alternative 6 does 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 alternative does not directly address cooperative formation standards, it is not analyzed directly with the other alternatives in this analysis. The analysis does contain a general discussion of the effects

and management and enforcement of this alternative in Section 2 of this analysis. **The Council should consider redesignating Alternative 6 as a suboption applicable to Alternatives 1 through 5.**

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 6 as described in Table E-1. 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 quo requirement for the other criteria is applied.

<b>Table E-1: Alternatives, Suboptions, and Implications for Cooperative Formation</b>				
Alternative	Supoption	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: Minimum QS holding to form cooperative	Suboption 1: 30 % of QS pool	1	N/A	3
	Suboption 2: 25 % of QS pool	1	N/A	4
	Suboption 3: 20 % of QS pool	1	N/A	5
Alternative 6: Modify GRS to allow calculation based on retention among cooperatives	N/A	N/A	N/A	N/A

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. Three potentially eligible QS permits that could be assigned based on the historic catch history of the *F/V Bering Enterprise*, *F/V Harvester Enterprise*, and the *F/V Golden Fleece* have

not been issued because the prospective owners of those QS permits have chosen not to apply. Additional discussion of possible reasons why those prospective QS holders may have chosen not to participate in the Amendment 80 Program, is provided in Section 2 of the analysis. Collectively, these prospective QS holders hold only 0.6 percent of the total available Amendment 80 QS allocation. The remaining 99.4 percent of the 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 are most likely to have a difficult time achieving GRS requirements if fishing without participation in a cooperative. 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, it provides some indication of the relative size of vessels that may have a difficult time meeting higher GRS requirements, and provides a useful focal point for this analysis.

<b>Table E-2: Amendment 80 Vessels, Owners, QS Holdings, and their Ability to Independently form Cooperatives under the Proposed Alternatives and Suboptions</b>			
<b>Owner<sub>1</sub></b>	<b>Amendment 80 Vessel(s)/LLPs with length overall (LOA)<sub>2</sub></b>	<b>Percentage of aggregate QS pool held</b>	<b>Alternatives and Suboptions under which a cooperative could be formed independent of other QS holders</b>
Fishing Company of Alaska (FCA), Inc.  (Management entity for owner)	Alaska Juris (238 ft) <i>Alaska Ranger</i> <sub>3</sub> (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)	<b>Ocean Alaska</b> (124 ft) <b>Alliance</b> (124 ft) <b>Legacy</b> (132 ft) <i>Prosperity</i> (138 ft - QS assigned to LLP license derived from vessel) <b>Seafreeze Alaska</b> (296 ft)	9.6	Alternative 4: Suboption 4
Iquiqui U.S., LLC	<b>Arica</b> (186 ft) <b>Cape Horn</b> (158 ft) <b>Rebecca Irene</b> (140 ft) <b>Tremont</b> (131 ft) <b>Unimak</b> (185 ft)	16.9	Alternative 4: Suboption 4
O'Hara Corporation	<b>Constellation</b> (150 ft) <b>Defender</b> (124 ft) <b>Enterprise</b> (132 ft)	12.6	Alternative 4: Suboption 4
Fishermen's Finest (Management Entity for owners)	<b>American No. 1</b> (160 ft) <b>U.S. Intrepid</b> (185 ft)	8.1	None
Cascade Fishing, Inc. (Management Entity for owners)	<b>Seafisher</b> (230 ft)	8.1	None
Ocean Peace	<b>Ocean Peace</b> (219 ft)	6.0	None
Jubilee Fisheries	<b>Vaerdal</b> (124 ft)	1.9	None
Arctic Sole Seafoods	<b>Ocean Cape</b> (122 ft - QS assigned to LLP derived from originally qualifying vessel <i>Arctic Rose</i> )	0.3	None
Trident Seafoods	<i>Bering Enterprise</i> (183 ft - QS could be assigned to LLP derived from vessel) <b>Harvester Enterprise</b> (188 ft)	0.5	N/A -- QS permits have not been issued.
Golden Fleece	<b>Golden Fleece</b> (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.

Table E-3 shows the participation patterns of various QS holders and their vessels in the 2008 and 2009 Amendment 80 fisheries.

<b>Table E-3: Participation in 2008 and 2009 Amendment 80 fisheries</b>			
Year and Fishery	Vessel Owner	Vessels	Percent of Amendment 80 QS Pool
2008 Amendment 80 limited access fishery participants	FCA	Alaska Juris <i>Alaska Ranger</i> 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	
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	

### 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, 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), or allowing a cooperative to form with a minimum QS holdings (Alternative 5) include: (1) providing additional opportunities to QS holders to form cooperatives because more combinations of unique QS holder and QS permits are possible; (3) reducing the potential risk of any one company being unable to negotiate terms and be forced to fish in the limited access fishery; and (4) 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 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 has formed in 2008 and 2009 (see Table E-3) 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.

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. 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 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.

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 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. 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.

### *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 5 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 5 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.

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

As noted under the effects on net benefits, Alternatives 2 through 5 may reduce some management costs. Enforcement of Alternatives 2 through 5 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. Alternative 6 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 5 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 changes.