

REGULATORY IMPACT REVIEW / INITIAL REGULATORY FLEXIBILITY ANALYSIS

For Amendment 105 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area

Bering Sea Flatfish Harvest Specifications Flexibility

July 2014

Abstract: This document analyzes a proposed action that would enable Amendment 80 cooperatives and Western Alaska Community Development Quota groups to exchange their quota share of one or two of three groundfish species (i.e., flathead sole, rock sole, and/or yellowfin sole) for an equivalent amount of the acceptable biological catch (ABC) surplus of one of the remaining species. The approach is intended to increase the opportunity for maximizing the harvest of these species, while ensuring that the overall optimum yield and the ABCs for each individual species are not exceeded. The proposed action would amend the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and Federal regulations related to the Bering Sea/Aleutian Islands.

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Executive Summary

This Regulatory Impact Review (RIR) and Initial Regulatory Flexibility Analysis (IRFA) is prepared for a proposed action that would allocate the ABC surplus (i.e., the difference between acceptable biological catch (ABC) and total allowable catch (TAC)) for flathead sole, rock sole, and/or yellowfin sole, among the Amendment 80 cooperatives and Western Alaska Community Development Quota (CDQ) Program entities, using the same formulas that are used in the annual harvest specifications process. These entities would be able to exchange their quota share of one or two of the three species (i.e., flathead sole, rock sole, and yellowfin sole) for an equivalent amount of their allocation of the ABC surplus of the remaining species. The approach is intended to increase the opportunity for maximizing the harvest of these species while ensuring that the overall optimum yield (OY), the sum of the TACs for the three species, and the ABCs for each individual species are not exceeded. The analysis also includes three alternatives and three options under those alternatives that address the potential for negative impacts of the approach on users of yellowfin sole in the Bering Sea/Aleutian Islands trawl limited access sector by restricting flexibility in the exchange of yellowfin sole. The proposed action would amend the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) and Federal regulations related to the Bering Sea / Aleutian Islands Management Area (BSAI).

Purpose and Need

This analysis examines alternatives to increase flexibility in the use of three target flatfish species within the confines of existing conservation thresholds. Flatfish TACs are consistently under-harvested due to various economic, regulatory, and environmental constraints. Under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the North Pacific Fishery Management Council's (Council's) FMP, there is a need to promote conservation while providing for the OY for the BSAI groundfish fishery. The purpose of this action is to identify a flexible approach that creates additional harvest opportunities to maximize the harvest of the TACs for three species, but still (1) maintain catch below the ABC limit for each species and (2) ensure that the 2 million mt maximum limit of the BSAI groundfish OY range will not be exceeded.

To originate this action, in June 2012, the Council adopted the following problem statement:

Typically, the Amendment 80 sector is unable to fully harvest the TACs for flathead sole, rock sole, and yellowfin sole due to market limitations and limitations associated with allocations of certain species harvested incidentally in the directed flatfish fisheries. In an effort to create additional harvest opportunities for the above species, a new harvest and accounting methodology is needed that would provide the Amendment 80 sector and CDQ groups increased flexibility in using yellowfin sole, rock sole, or flathead sole allocations. A new harvest and accounting methodology would enable Amendment 80 cooperatives and CDQ groups to maximize their harvest of these three species under various regulatory, economic, and environmental constraints while also ensuring that the ABC for each individual species is not exceeded in order to avoid any biological or conservation concerns.

Description of the Alternatives

Alternatives and options were adopted by the Council in June 2012, and modified in February and April 2013. The Council identified a preferred alternative at final action in April 2013, which is identified in bold text below.

In the preferred alternative below, the Council refers to the terms "harvest limit" and "harvest limit surplus." In order to increase precision and avoid confusion with similar fishery management terms, these terms have been replaced throughout the remainder of the analysis, although the preferred alternative is functionally unaltered. The "harvest limit" is the amount of the ABC that would be accessible to be harvested, which could be the whole of the ABC, or a reduced discretionary buffer amount to account for social, economic, and/or biological considerations. The term "harvest limit surplus" has been redefined in the analysis as the "ABC reserve," which is equivalent to the ABC minus TAC minus the Council's discretionary buffer amount. This is described in further detail in Section 1.4.3.

Alternative 1: No Action.

Alternative 2: Allocate ABC surplus (the difference between ABC and TAC) for flathead sole, rock sole, and yellowfin sole among the Amendment 80 cooperatives and the CDQ Program, using the same formulas as are used in the annual harvest specifications process. Entities may exchange their yellowfin sole, flathead sole, and/or rock sole quota share for an equivalent amount of their allocation of the ABC surplus for these species. Quota share that is exchanged for ABC surplus may be credited back to the entity's allocation of the surplus, if unused.

Alternative 3: Preferred Alternative (as modified by Option 1) For flathead sole, rock sole, and yellowfin sole, the Council shall annually establish a harvest limit that is equal to ABC, or reduced from ABC for social, economic, or ecological considerations, and allocate the harvest limit surplus (the difference between the harvest limit and TAC) for flathead sole, rock sole, and yellowfin sole, among the Amendment 80 cooperatives and the CDQ Program, using the same formulas as are used in the annual harvest specifications process. Entities may exchange their yellowfin sole, flathead sole, and/or rock sole quota share for an equivalent amount of their allocation of the harvest limit surplus for these species. Quota share that is exchanged for harvest limit surplus may be credited back to the entity's allocation of the surplus if unused.

Option 1: Each entity is limited to 3 exchanges per calendar year. The Council shall receive draft Amendment 80 annual cooperative reports that include flatfish exchanges, cooperative transfers, actual harvests, and a retrospective review of the number of Amendment 80 vessels used to harvest flatfish annually. Each draft Amendment 80 cooperative report is to be submitted to the Council no later than December 1 of each year.

Option 2: Allocate only the ABC surplus for flathead sole and rock sole. Entities may, however, exchange their yellowfin sole quota share to access their allocation of the rock sole or flathead sole ABC (or harvest limit) surplus.

Option 3: No entity may access more than [5,000 mt to 25,000 mt] of additional yellowfin sole.

Summary of the Potential Effects of the Alternatives

Under Alternative 1, the status quo alternative, the flatfish fleet has had difficulty fully utilizing the flatfish resource, even though, since the implementation of Amendment 80 in 2008, catch and utilization rates have improved substantially. The implementation of the Amendment 80 Program, however, has also precipitated a situation where there is an incentive to set artificially high TACs for the species for which participants are hard capped, in order to account for an environment in which the sector is operating under multiple and unpredictable catch constraints. The harvest specifications process and pre-

season incidental catch planning may not be able to relieve constraints that arise midseason, in response to changes in incidental catch conditions. In some instances, this situation may inhibit the achievement of OY.

Alternative 3 differs from Alternative 2 only in that the Council would have the ability to reduce the ABC surplus by some specified amount for socioeconomic and/or biological considerations. The resulting ABC reserve would be available to eligible entities exactly as described in Alternative 2. As a result, the discussion of the impacts of these two alternatives is identical, except that Alternative 3 potentially limits the flexibility to the eligible entities in order to preserve the Council's ability to take action to limit access to the entire ABC surpluses for flathead sole, rock sole, and yellowfin sole to account for socioeconomic or biological concerns.

Alternative 2 and Alternative 3, relative to status quo, could maximize flatfish TAC utilization, to the extent that additional constraints in targeting flatfish can be resolved through inseason flexibility in the choice of a flatfish target. Both Amendment 80 vessels and non-Amendment 80 vessels fishing CDQ allocations are affected by the same uncertain operational conditions (e.g., difficult to predict harvest rates of flatfish in target and non-target fisheries), unpredictable environmental conditions, and market conditions that can limit harvest. The flexibility to exchange quota among target species allows the fleet to modify fishing behavior to maximize the catch and retention of flatfish. For example, the ability to respond inseason could benefit the fleet with respect to changing environmental and/or market conditions that could not be accurately anticipated in the pre-season.

The CDQ groups would have the same opportunity as the Amendment 80 cooperatives to access the ABC reserve, or CDQ ABC reserve and, consequently, would also be able to benefit from the flexibility in choice of target flatfish afforded by Alternatives 2 and 3. The CDQ Program, as a whole, is not yet approaching full utilization of any of the three target flatfish species, however, so any benefits of this flexibility may not be apparent until the program comes closer to fully utilizing its existing allocations, as the groups could first utilize their ability to transfer quota share among themselves.

Over the last five years, the Amendment 80 sector has become increasingly more efficient and this trend is likely to continue. It is impossible to quantitatively assess the impacts of the preferred alternative on the values of CDQ allocations of flathead sole, rock sole, and yellowfin sole available for lease by fishing partners. A qualitative assessment suggests that as the supply of these three species increases for the Amendment 80 sector as a result of this action, the demand for leasing CDQ flatfish quota would decrease, along with the lease rates. The possibility for this loss may exist in the short term only because demand for CDQ flatfish quota is likely to increase as more efficient vessels specifically designed for participation in the BSAI trawl fisheries replace the aging fleet, and Amendment 80 allocations are fully utilized. Anecdotal evidence suggests that leasing CDQ species is desirable,¹ and as Amendment 80 vessels increase their efficiency, they will continue to seek other fishing opportunities, such as CDQ harvest. Also, in the past, the CDQ groups leased their flatfish quota share to Amendment 80 vessels to harvest; however, since 2011, other partners have also entered the market, which may lead to increased competition for CDQ leases.

Other BSAI groundfish fishery participants may benefit from the increased flexibility proposed under Alternatives 2 and 3, by facilitating the annual harvest specification process. The Amendment 80 sector, in managing their multiple hard caps, has to factor in considerable uncertainty in order to ensure that they can successfully prosecute their multispecies fisheries. If the sector has access to an additional tool, there

¹ Jason Anderson, Alaska Seafood Cooperative, personal communication, January 22, 2013; Everette Anderson, Aleutian Pribilof Islands Community Development Association, personal communication, January 22, 2013.

may be more room for compromise with respect to balancing TAC allocations under the 2 million mt OY limit for all BSAI groundfish, especially in years where the pollock and/or Pacific cod biomasses are high.

It is possible that this alternative may change interactions of the BSAI trawl limited access sector with respect to providing testimony during annual harvest specification process for establishing the yellowfin sole TAC. As is typical, industry testimony is presented to inform the science based harvest specification process to raise or lower the yellowfin sole TAC, which is set at the beginning of the year. However, the Council makes final recommendations on TAC setting, and it is likely that any attempts at gaming by either sector would be apparent to the Council, or brought out in public testimony. In most years, the Council has habitually set the yellowfin sole TAC close to or at the ABC.

Alternatives 2 and 3 would have no effect on stock assessments or on annual catch limit accounting. The approach proposed in Alternatives 2 and 3 would add a level of complexity, both to NMFS management and the annual harvest specifications process; however, such changes should be feasible. On an annual basis, the Council and NMFS would likely need to acknowledge, as part of the harvest specifications process, that the TAC that is recommended by the Council and ultimately implemented by the Secretary of Commerce for the three flatfish species could increase, although the overall constraint of the OY limit would still be maintained. Moreover, the implementation of higher TACs for one or more of the three flatfish species does not increase the likelihood that the sum of the three TACs could be exceeded.

If an inseason adjustment and *Federal Register* notice are required for each exchange, then having some limit on the number of exchanges per year, as in **Option 1**, would reduce the potential administrative burden of Alternatives 2 and 3 for NMFS. A limit of three exchanges should provide sufficient opportunity for the sectors. Moreover, the Council received testimony from members of industry that the new cooperative reporting requirements will not be overly burdensome to industry, because this information will be tracked by the cooperatives and is readily available.

It is unclear whether there would be an adverse impact on the BSAI trawl limited access sector as a result of Alternatives 2 and 3 (see discussion above). Nonetheless, the Council has identified two possible options that could mitigate any adverse effect on the BSAI trawl limited access sector. **Option 2** would eliminate any possible adverse effect on the BSAI trawl limited access sector. However, the ability to exchange excess quota share of other flatfish species for yellowfin sole TAC, particularly towards the end of the year when yellowfin sole is the primary flatfish target, could be an important element of the flexibility envisioned in Alternatives 2 and 3. Under **Option 3**, the Council would limit the amount of additional yellowfin sole that could be accessed through ABC reserve exchange, by entity. To the extent that the limit set in Option 3 is constraining for Amendment 80 cooperatives, it reduces the flexibility afforded by Alternatives 2 and 3, but still provides more flexibility than **Option 2**.

Preferred Alternative (Alternative 3 modified by Option 1)

The preferred alternative, Alternative 3 as modified by Option 1, would be similar to Alternative 2, except for the additional establishment of a discretionary Council buffer implemented through the harvest specifications process. Option 1 restricts the number of transfers to three per entity per year. For example, under the preferred alternative, quota share or CDQ reserve that is exchanged for an equivalent amount of ABC reserve may be credited back to the entity's allocation of the reserve, if unused; however, this scenario would be debited as two of the possible three transactions limit.

At final action the Council recommended a December 1 annual deadline for the draft cooperative reports. The new reporting requirement would be referred to as the Preliminary Amendment 80 Flatfish Exchange Report and would only include retrospective data on flatfish exchanges and the number of vessels used to

harvest the quota, but would not include all of the information included in the existing Amendment 80 Cooperative Report. The December 1 deadline for the new report coincides with the harvest specifications process and meets the purpose and need for this action by maintaining a transparent groundfish harvest specifications process for setting the discretionary Council buffer (i.e., ABC surplus reduced by the ABC reserve), TAC, and ultimately the Amendment 80 and CDQ ABC reserves. The Council intended that the draft reports contain fishery data through October 31 of that fishing year, to provide Amendment 80 cooperatives with time to prepare the draft reports for the December 1 deadline. The timing of the report is intended to inform the Council's assessment of the use of flatfish exchanges during that annual harvest specifications process. This reporting requirement does not include the CDQ groups because of the relatively small amount of the ABC reserve (10.7 percent) allocated to the CDQ Program, and the limited impact that the use of flatfish exchanges by CDQ groups would likely have on other fishery participants.

The proposed reporting requirements are intended to provide the Council and the public with additional information that they could use to identify any unanticipated fishery impacts, or fishery impacts previously considered (see the Categorical Exclusion for this action), of this proposed action on non-Amendment 80 cooperative participants, following the implementation of this proposed action. Each Amendment 80 cooperative would report the number of vessels used to harvest the Amendment 80 cooperative's quota; the number of flatfish exchanges and dates those exchanges were approved; the types and amounts of CQ and Amendment 80 ABC reserve used; and the dates, types, and amounts of intercooperative CQ transfers.

NMFS is not requiring that Amendment 80 cooperatives disclose catch data that may be considered confidential. When the Council recommended its preferred alternative, it requested that NMFS require each Amendment 80 cooperative to provide catch information for flathead sole, rock sole, and yellowfin sole catch as part of this new proposed reporting requirement. However, Amendment 80 cooperative catch data at this level is *currently*² considered confidential and therefore protected under section 402 of the Magnuson-Stevens Act (16 U.S.C. 1881a). Therefore, these data cannot be disclosed to the Council or the public. However, catch information on aggregate catch by all vessels operating in the BSAI are available by species at the NMFS website (<http://alaskafisheries.noaa.gov>) or could be provided to the Council on request at the December meeting, or any time prior to that meeting.

The preferred alternative will not affect the sustainability or catch levels of groundfish in the BSAI because the fishery will continue to be managed under the current harvest specifications process. Similarly, the proposed action would generally improve the likelihood of achieving and maintaining, on a continuing basis, the OY in the BSAI, to the extent that the preferred alternative provides an opportunity for increased utilization of existing catch. This action would not increase the likelihood that the ABC or OY would be exceeded.

² NMFS has issued a proposed rule that clarifies what catch information may be released under "limited access privilege" programs, as defined under the Magnuson-Stevens Act (see 77 FR 30486, May 23, 2012). As proposed, the rule addresses the release of catch information collected under the Amendment 80 Program. This proposed rule broadly addresses the release of confidential data under section 402 of the Magnuson-Stevens Act, and if approved, a final rule could provide for the release of catch information requested by the Council when it recommended the preferred alternative.

1 REGULATORY IMPACT REVIEW

1.1 Introduction

This Regulatory Impact Review (RIR) is prepared for a proposed action that would allocate the ABC surplus (i.e., the difference between ABC and TAC for flathead sole, rock sole, and/or yellowfin sole, among CDQ groups and Amendment 80 cooperatives representing BSAI trawl catcher/processors (C/Ps) that are not authorized to conduct directed fishing for pollock under the American Fisheries Act of 1998 (AFA) (Public Law 105-227, Title II of Division C). These non-AFA trawl C/Ps also are referred to as Amendment 80 vessels, or the Amendment 80 sector. These entities would be able to exchange some amount of their quota share of one or two of the three species for an equivalent amount of their allocation of the ABC surplus for a different one or two of the remaining three species. The approach is intended to increase the opportunity for maximizing the harvest of these species, while ensuring that the OY for BSAI groundfish, and ABCs for each individual species, are not exceeded. The analysis also includes options that would restrict flexibility in the exchange of yellowfin sole. These options may be used to address potential negative impacts of the flatfish exchanges on users of yellowfin sole in the BSAI trawl limited access sector. The proposed action would amend the FMP and Federal regulations related to the BSAI groundfish fisheries.

The following sections of the RIR describe the history of the action, the primary regulatory programs affecting the BSAI flatfish fisheries, and the potential effects of the alternatives and options on vessels and entities associated with the non-AFA trawl C/P fleet, vessels participating in the yellowfin sole BSAI trawl limited access sector, and CDQ groups.

1.1.1 What is a Regulatory Impact Review?

This RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735, September 30, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement for 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.

EO 12866 further 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.

1.1.2 History of this Action

In June 2012, the Council initiated this analysis to change the harvest and accounting methodology for flathead sole, rock sole, and yellowfin sole, in order to allow increased flexibility in targeting these species. This issue was originally brought to the Council in testimony by industry in December 2010. The Council reviewed several iterations of a discussion paper evaluating different approaches to increase flexibility in the specifications process, including the use of nonspecified reserves, and other measures. The discussion paper also identified legal, practical, and policy implications of such measures.

In investigating approaches to achieve increased flexibility in how flatfish may be harvested in the BSAI, the discussion paper identified certain basic assumptions, with which the Council agreed:

- Ensure that the overfishing level (OFL) and ABC for a target stock are not exceeded.
- Ensure that the 2 million mt OY limit is not exceeded.
- Be consistent with the management goals established under the Amendment 80 Program.
- Provide a transparent process for determining allocations before the start of the fishing year, preferably in the harvest specifications process.

Under the approach proposed in this analysis, no change is envisioned to the current process for establishing individual OFLs, ABCs, or TACs for each of the three species through the harvest specification process. The proposed approach would not alter the way that stock assessments are conducted for the individual species, nor the recommendations for OFL and ABC made by the Plan Team and the Council’s Scientific and Statistical Committee (SSC).

The approach also assumes that, to the extent possible, the Council’s intention is to be consistent with the existing Amendment 80 Program. The various sectors that harvest the three flatfish species would continue to be managed, either through hard caps or through NMFS’ inseason management procedures, in such a way as to prevent the ABC for each species and the sum of the TACs for the three species from being exceeded.

In June 2012, the Council initiated an analysis of an approach that appeared to be achievable, within the existing management structure, while including options to mitigate any adverse impacts to other parties. On that basis, the Council identified a problem statement and an initial set of two alternatives.

The Council added Alternative 3 in February 2013. Alternative 3 added provisions to Alternative 2 that would allow the Council to establish an ABC reserve that is below the ABC surplus. The analysis has been revised to reflect this terminology, introduced with Alternative 3, and provide consistency with the process described for Alternative 2.

In April 2013, the Council took final action on Amendment 105, after considering public comment and discussing the merits of adding a reporting requirement under Option 1. The Council concluded that a reporting requirement should be added to the preferred alternative to help ensure that the Council is informed when recommending catch limits and making determinations about a discretionary buffer as part of the flatfish flexibility program. The new reporting requirement would track the impacts of this action on fishing behavior, impacts on non-Amendment 80 participants, and provide information on capacity changes in the Amendment 80 fleet.

1.1.3 Statutory Authority for this Action

NMFS manages the U.S. groundfish fisheries in the portion of its exclusive economic zone within the BSAI according to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. This FMP was prepared by the Council under the authority of the Magnuson-Stevens Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

1.2 Primary Regulatory Programs Affecting BSAI Flatfish Fisheries

1.2.1 Harvest Specifications

The FMP and its implementing regulations require NMFS, after consultation with the Council, to specify the TAC for each target species; the sum TAC for all groundfish species must be within the OY range of 1.4 million to 2.0 million metric tons (mt). In recent years, NMFS and the Council have specified the TAC at 2.0 million mt for groundfish in the BSAI. NMFS and the Council also must specify apportionments of TAC, prohibited species catch (PSC) allowances, prohibited species quota reserves, seasonal allowances of pollock, Pacific cod, and Atka mackerel TAC, Amendment 80 allocations, and CDQ reserve amounts. The harvest specifications are established in tables to satisfy these requirements. Federal statutes further require NMFS to consider public comment on the proposed annual TACs (and apportionments thereof) and PSC allowances, and to publish final harvest specifications in the *Federal Register*.

Annually, NMFS consults with the Council on the final harvest specifications during the December Council meeting. After considering public comments, as well as biological and economic data that are available at the Council's December meeting, NMFS implements the final harvest specifications. The ABC and TAC levels for Alaska groundfish are based on the best available biological and socioeconomic information, including projected biomass trends, information on assumed distribution of stock biomass, and revised technical methods used to calculate stock biomass. In general, the development of ABCs and OFLs involves sophisticated statistical analyses of fish populations.

The FMP specifies a series of six tiers to define OFL and ABC amounts based on the level of reliable information available to fishery scientists. Tier 1 represents the highest level of information quality available, while Tier 6 represents the lowest. The SSC, the Council's Advisory Panel, and the Council review the current biological information about the condition of the BSAI groundfish stocks. The Council's Plan Team presents this information in an annual stock assessment and fishery evaluation (SAFE) report for the BSAI groundfish fisheries. The SAFE report contains a review of the latest scientific analyses and estimates of each species' biomass and other biological parameters, as well as summaries of the available information on the BSAI ecosystem and the economic condition of groundfish fisheries off Alaska. NMFS notifies the public and asks for comment on the SAFE report in the notice of proposed harvest specifications. From these data and analyses, the Plan Teams estimate an OFL and ABC for each species or species category and recommend these to the SSC.

Annually, in December, the SSC reviews the Plan Teams' recommendations and sets ABCs and OFLs. The Council uses these OFL and ABC amounts to set final TACs, adjusted for other biological and socioeconomic considerations, including maintaining the sum of the TACs within the required OY range of 1.4 million to 2.0 million mt. As required by annual catch limit rules for all fisheries (74 FR 3178, January 16, 2009), the Council's recommended TACs may not exceed the ABCs for any species category. The final harvest specifications must be approved by the Secretary of Commerce, and must be consistent with the preferred harvest strategy alternative in the Alaska Groundfish Harvest Specifications Final Environmental Impact Statement (NMFS 2007). The Secretary will approve the Council's recommended

OFLs, ABCs, and TACs if they are found to be consistent with the biological condition of groundfish stocks, as described in the most recent SAFE report.

1.2.2 Amendment 80 Program

In June 2006, the Council adopted Amendment 80 to the FMP, which was implemented with a final rule published in 2007 and was fully effective starting with the 2008 fishing year (72 FR 52668, September 14, 2007). Among other measures, Amendment 80 authorized the allocation of specified groundfish species to harvesting cooperatives and established a catch share program for trawl C/Ps that are not authorized to conduct directed fishing for pollock under the AFA (Public Law 105-227, Title II of Division C). These non-AFA trawl C/Ps also are referred to as Amendment 80 vessels, or the Amendment 80 sector. The Amendment 80 Program is a limited access privilege program (LAPP) that allocates a quota share permit to a person, based on a vessel's 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 BSAI, from 1998 through 2004. This criteria is consistent with criteria for participation in the non-AFA trawl C/P subsector set forth in section 219(a)(7) of the BSAI Catcher/processor Capacity Reduction Program, which is contained within the Department of Commerce and Related Agencies Appropriations Act, 2005 (Public Law No. 108-447). Based on these criteria, NMFS determined that 28 non-AFA trawl C/Ps originally qualified for the Amendment 80 Program.

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 BSAI trawl limited access fishery, without an exclusive harvest privilege, and must continue to compete for a share of the available 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 "fish fast to maximize catch rates" to capture as much of the available common allocation are removed.

1.3 Purpose and Need Including the Problem Statement

This analysis examines alternatives to increase flexibility in the use of three target flatfish species, within the confines of existing conservation thresholds. Flatfish TACs are consistently under-harvested, due to various economic, regulatory, and environmental constraints. Under the Magnuson-Stevens Act and the Council's FMP, there is a need to promote conservation while providing for OY for the BSAI groundfish fishery. The purpose of this action is to identify a flexible approach that creates additional harvest opportunities to maximize total allowable catches, but still (1) maintains catch below the acceptable biological catch limits and (2) ensures that the 2 million mt maximum limit imposed by the BSAI groundfish OY will not be exceeded.

To originate this action in June 2012, the Council adopted the following problem statement:

Typically, the Amendment 80 sector is unable to fully harvest the TACs for flathead sole, rock sole, and yellowfin sole due to market limitations and limitations associated with allocations of certain species harvested incidentally in the directed flatfish fisheries. In an effort to create additional harvest opportunities for the above species, a new harvest and accounting methodology is needed that would provide the Amendment 80 sector and CDQ groups increased flexibility in using yellowfin sole, rock sole, or flathead sole allocations. A new harvest and accounting methodology would enable Amendment 80 cooperatives and CDQ groups to maximize their harvest of these three species under various regulatory, economic, and environmental constraints while also ensuring that the

ABC for each individual species is not exceeded in order to avoid any biological or conservation concerns.

1.4 Alternatives

Alternatives and options were adopted by the Council in June 2012, and modified in February and April 2013. The Council identified a preferred alternative at final action in April 2013, which is identified in bold text below.

In the preferred alternative below, the Council refers to the terms "harvest limit" and "harvest limit surplus." In order to increase precision and avoid confusion with similar fishery management terms, these terms have been replaced throughout the remainder of the analysis, although the preferred alternative is functionally unaltered. The "harvest limit" is the amount of the ABC that would be accessible to be harvested, which could be the whole of the ABC, or a reduced discretionary buffer amount to account for social, economic, and/or biological considerations. The term "harvest limit surplus" has been redefined in the analysis as the "ABC reserve", which is equivalent to the ABC minus TAC minus the Council's discretionary buffer amount. This is described in further detail in Section 1.4.3.

Alternative 1: No Action.

Alternative 2: Allocate ABC surplus (the difference between ABC and TAC) for flathead sole, rock sole, and yellowfin sole among the Amendment 80 cooperatives and the CDQ Program, using the same formulas as are used in the annual harvest specifications process. Entities may exchange their yellowfin sole, flathead sole, and/or rock sole quota share for an equivalent amount of their allocation of the ABC surplus for these species. Quota share that is exchanged for ABC surplus may be credited back to the entity's allocation of the surplus, if unused.

Alternative 3: (Preferred Alternative as modified by Option 1) For flathead sole, rock sole, and yellowfin sole, the Council shall annually establish a harvest limit that is equal to ABC, or reduced from ABC for social, economic, or ecological considerations, and allocate the harvest limit surplus (the difference between the harvest limit and TAC) for flathead sole, rock sole, and yellowfin sole, among the Amendment 80 cooperatives and the CDQ Program, using the same formulas as are used in the annual harvest specifications process. Entities may exchange their yellowfin sole, flathead sole, and/or rock sole quota share for an equivalent amount of their allocation of the harvest limit surplus for these species. Quota share that is exchanged for harvest limit surplus may be credited back to the entity's allocation of the surplus if unused.

Option 1: (Preferred Alternative) Allocate only the ABC surplus for flathead sole and rock sole. Entities may, however, exchange their yellowfin sole quota share to access their allocation of the rock sole or flathead sole ABC (or harvest limit) surplus.

Option 2: Allocate only the ABC surplus for flathead sole and rock sole. Entities may, however, exchange their yellowfin sole quota share to access their allocation of the rock sole or flathead sole ABC (or harvest limit) surplus.

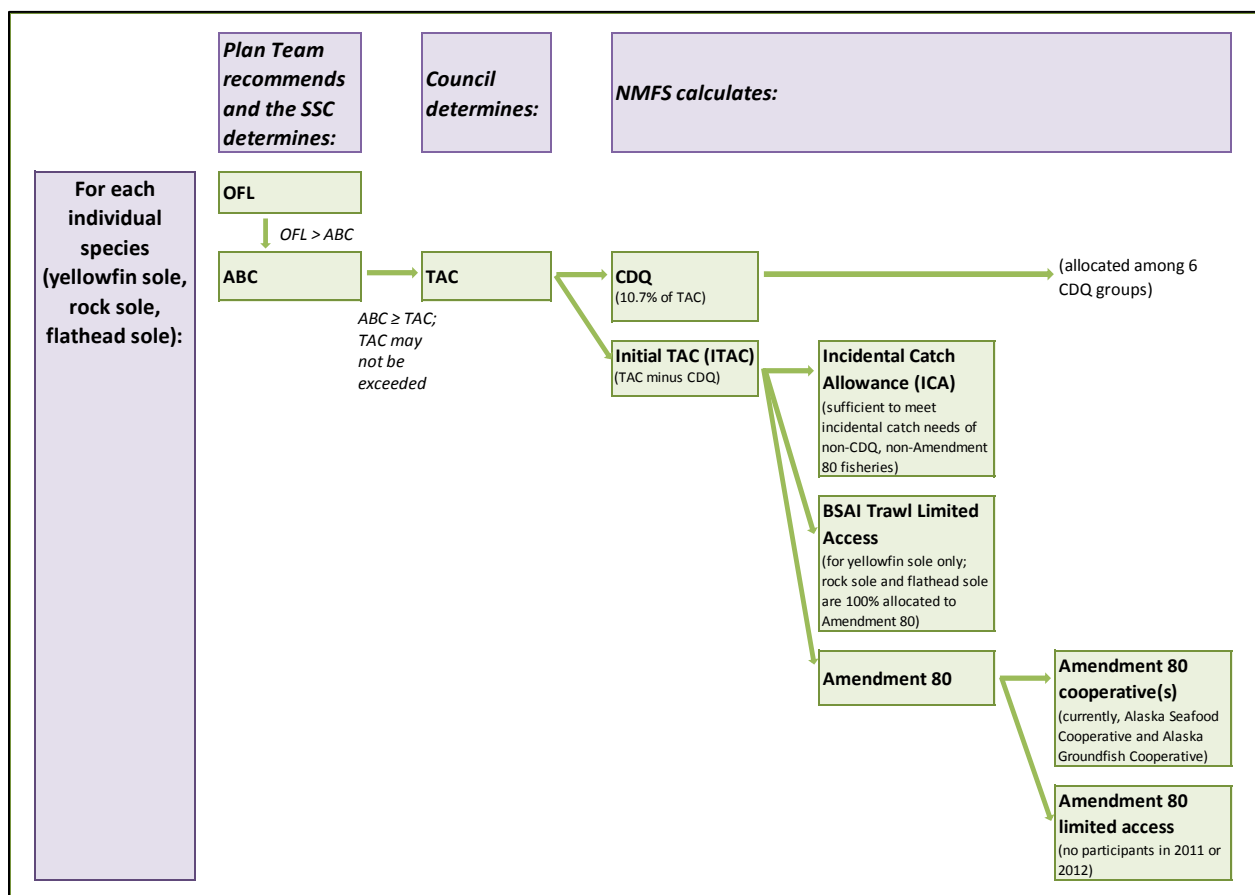
Option 3: No entity may access more than [5,000 mt to 25,000 mt] of additional yellowfin sole.

Note: The three options may apply either to Alternative 2 or Alternative 3. Options 2 and 3 are mutually exclusive.

1.4.1 Alternative 1

The FMP establishes requirements for setting OFLs, ABCs, and TACs for target groundfish species. The ABC is a level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty. The TAC cannot be set higher than the ABC (i.e., the maximum permissible annual catch), and can be set lower, depending on biological or socioeconomic factors considered by the Council and NMFS. The OFL, ABC, and TAC are set through the harvest specification process (Figure 1). The FMP establishes an annual catch limit (ACL) for each target species, consistent with National Standard 1 of the Magnuson-Stevens Act.³ For groundfish of the BSAI, including flathead sole, rock sole, and yellowfin sole, the ACL is equal to the ABC (NPFMC 2011). Typically, the TACs for flathead sole and rock sole are set well below the ABC. Generally, the yellowfin sole TAC has been set close to or at the ABC.

Figure 1 Current process for establishing OFL, ABC, TAC, and fishery allocations for flathead sole, rock sole, and yellowfin sole.



The OY for groundfish species in the BSAI was established by statute at 2 million metric tons (mt).⁴ The Council sets the combined TACs at less than or equal to 2 million mt to ensure the BSAI OY limit is not exceeded.

³ National Standard 1 of the Magnuson-Stevens Act, and National Standard 1 guidelines are described in the final rule to implement National Standard 1 guidelines (74 FR 3178, January 16, 2009), and the final rule implementing Amendments 95 and 96 to the fishery management plans for groundfish of the BSAI and Gulf of Alaska (75 FR 61639, October 6, 2010).

⁴ See section 803(c) of Pub. L. No. 108-199 "The optimum yield for groundfish in the Bering Sea and Aleutian Islands Management Area shall not exceed 2 million metric tons."

Flathead sole and rock sole TACs are apportioned between the CDQ Program and the Amendment 80 sector (Figure 1). NMFS also sets an incidental catch allowance (ICA) to account for incidental catch in non-CDQ and non-Amendment 80 sectors. The yellowfin sole TAC is apportioned among the CDQ Program, the Amendment 80 sector, and the BSAI trawl limited access sector (i.e., non-Amendment 80 trawl vessels), in addition to an ICA set aside. NMFS may reallocate any portion of the TAC not projected to be harvested as ICA or by the BSAI trawl limited access sector to Amendment 80 cooperatives during the fishing year.

The portion of the flathead sole, rock sole, and yellowfin sole TAC assigned to the Amendment 80 sector is further apportioned between Amendment 80 cooperatives and the Amendment 80 limited access fishery (Figure 1). Amendment 80 cooperatives receive an exclusive harvest privilege, known as CQ, for each species, which the cooperatives are prohibited from exceeding; NMFS retains management authority of the Amendment 80 limited access fishery.⁵ Since 2011, all participants in the Amendment 80 sector have been members of a cooperative.

Amendment 80 cooperatives have established private contractual arrangements stipulating the processes and the procedures cooperative members can use to access CQ as needed, while ensuring other members are not unduly constrained. Although Amendment 80 cooperative managers have the flexibility to allocate the use of flatfish CQ among individual companies or operators participating in the cooperative (i.e., intra-cooperative transfers), these flatfish quota transfers exist outside of the Federal regulations and oversight. Thus, data on their usefulness in facilitating the use of CQ allocations are not available and are likely confidential.

The Amendment 80 Program established provisions that allow the transfer of CQ between cooperatives to allow more efficient use of Amendment 80 species among cooperatives (i.e., intercooperative transfers). In general terms these transfer provisions are used to increase fleet flexibility and to maximize the harvest of CQ in the BSAI flatfish fisheries. NMFS does collect data on transfers of CQ between Amendment 80 cooperatives. In years that more than one Amendment 80 cooperative was established, 2011 through 2013, cooperative transfers were used to increase the use of Amendment 80 flatfish allocations. For example, Amendment 80 cooperatives initiated 6 transfers in 2011 and a high of 40 transfers in 2012. Intercooperative transfers remained high in 2013 with a total of 32 transfers.

In 2009, the Council recommended Amendment 90 to the FMP to modify the intercooperative transfer provisions to allow post-delivery transfers in the Amendment 80 Program.⁶ Post-delivery transfers are intended to mitigate potential overages, reduce enforcement costs, and provide for more precise TAC management and more value from the harvests for participants. Post-delivery transfers also increase fleet flexibility and allow more efficient use of resources. The flexibility to complete transfers after deliveries reduces the potential that some CQ will remain unharvested if a cooperative is not able to harvest its CQ allocation without the risk of an overage, and minimizes the potential for CQ overages because a CQ account can be balanced after delivery.

Similarly, CDQ groups are able to transfer their CDQ allocations among CDQ groups to provide additional opportunities for CDQ groups to more fully harvest their allocations. Moreover, transfers of CDQ are used by individual CDQ groups to ensure that they do not exceed their CDQ allocation.

⁵ The methodology and rationale for apportioning the TAC among the CDQ, ICA, Amendment 80 sector, and BSAI trawl limited access fishery, as well as allocations to Amendment 80 cooperatives and the Amendment 80 limited access fishery are detailed in the proposed rule for the Amendment 80 Program (72 FR 30061, May 30, 2007).

⁶ Published in the *Federal Register* (74 FR 42178, August 21, 2009) and in regulations at § 679.7(o)(4)(v).

1.4.2 Alternative 2

As described in Figure 1, under the status quo, OFL, ABC, TAC, and fishery allocations are established for each of the three flatfish species in the annual harvest specifications process. The Council cannot establish a TAC that is higher than the ABC for any species, but frequently for these three flatfish species, the TAC is set lower than the ABC, sometimes substantially so. Fishery allocations to the various sectors are determined based on regulations that were established in the development of the CDQ and Amendment 80 programs.

Under Alternative 2, the annual harvest specifications process would continue unchanged, and allocations of each flatfish species would be made at the beginning of the fishing year. However, a system would be set up to allow Amendment 80 cooperatives and CDQ groups, during the course of the fishing year, to harvest yellowfin sole, rock sole, or flathead sole from the ABC reserve that may be available in excess of the TAC for one or two of these species. Since each entity would be prevented from accessing any amount in excess of the ABC for any of the three species, there are no biological or conservation concerns with the proposed approach. Also, any entity wanting to access the ABC surplus for a particular flatfish species (e.g., yellowfin sole) would need to exchange an equivalent amount of existing quota for another of the remaining two flatfish species (e.g., rock sole or flathead sole). By requiring NMFS approval of each flatfish exchange, NMFS would ensure that each entity remained within its aggregated TAC limits, ensure that flatfish catch or TAC rollovers in other fisheries are considered prior to exchange approval, and, thus, guarantee that the overall OY for BSAI groundfish could not be exceeded.

Only Amendment 80 cooperatives and CDQ groups would be eligible, as only those entities have been assigned an exclusive catch and use privilege, and have the requisite infrastructure to manage their own quotas. An entity would also need to have more than one of these flatfish species allocated to it, so there is no net gain in TAC. The BSAI trawl limited access sector is allocated only yellowfin sole, disqualifying it from participation based on this requirement.

Exchanges would be processed in a manner similar to intercooperative transfers, with built-in limits for how much quota may be exchanged. At the beginning of each year, NMFS would calculate the amount of ABC surplus to which each entity would have access (i.e., ABC reserves). Table 1 illustrates how this process would work. For each of the three species, flathead sole, rock sole, and yellowfin sole, the agency would first calculate whether there is an ABC surplus, by subtracting the TAC from ABC. If there is a surplus, this amount would then be allocated among eligible entities. As with the existing harvest specifications process, the CDQ Program would be allocated 10.7 percent of the ABC surplus, which would become the CDQ ABC reserve.

The remaining portion of the ABC surplus would be assigned among eligible cooperatives, in proportion to the cooperative's share of each individual flatfish species. This is the same formula that is currently used for allocating their share of TAC to the Amendment 80 cooperatives. Table 1 illustrates the process with 2013 values, and results in an ABC reserve value for each flatfish species, for each of the two Amendment 80 cooperatives in 2013.

Table 1 Proposed process for calculating the ABC reserves for Amendment 80 cooperatives and CDQ ABC reserves for flathead sole, rock sole, and yellowfin sole, as illustrated with 2013 values (mt).

	ABC	TAC	ABC surplus	Assignment of ABC Surplus to user groups					
				CDQ ABC reserve	A80 ABC reserve	ASC % of A80 QS	AGC % of A80 QS	ASC ABC reserve	AGC ABC reserve
				10.7% of ABC surplus	89.3% of ABC surplus	% of A80 QS initially assigned to each cooperative			
Flathead sole	67,900	22,699	45,201	4,837	40,364	80.5%	19.5%	32,482	7,883
Rock sole	214,000	92,380	121,620	13,013	108,607	71.9%	28.1%	78,122	30,484
Yellowfin sole	206,000	198,000	8,000	856	7,144	57.6%	42.4%	4,112	3,032

A80 = Amendment 80, ABC = acceptable biological catch, AGC = Alaska Groundfish Cooperative, ASC = Alaska Seafood Cooperative, CDQ = community development quota program, CQ = cooperative quota, TAC = total allowable catch

Once these Amendment 80 ABC reserves and CDQ ABC reserves are calculated and entered into the account balance tracking system, they may be accessed by the relevant cooperative or the CDQ Program through an online exchange. While this exchange would be modeled on an intercooperative transfer, there would also need to be changes. Intercooperative transfers are designed for transferring quota for an individual species from one account to another. Under Alternative 2, transfers for two species would need to be linked. For example, each flatfish exchange request would be valid only if (1) the CDQ group or Amendment 80 cooperative exchanging flathead sole, rock sole, or yellowfin sole has sufficient CDQ ABC surplus or Amendment 80 ABC surplus for the flatfish species for which it is requesting to increase its CDQ or CQ; and (2) the CDQ group or Amendment 80 cooperative requesting an exchange of flathead sole, rock sole, yellowfin sole exchanges an equal amount of unused CDQ allocation or unused CQ for the amount of flathead sole, rock sole, or yellowfin sole received from the CDQ ABC surplus or Amendment 80 ABC surplus. A request to transfer from the ABC reserve into an entity's quota account for one species would necessarily be linked with a transfer of a different flatfish species out of the entity's quota account, in order to ensure that the overall cooperative quota assigned to that entity would not be exceeded.

An example of how such an exchange might proceed is provided in Table 2. To demonstrate the process, an Amendment 80 cooperative is assumed to want access to the yellowfin sole ABC reserve, for which it is willing to forego a portion of its flathead sole allocation. The transfer of 4,112 mt of yellowfin sole from the cooperative's ABC reserve account into the cooperative's quota account is coupled with a transfer of 4,112 mt of flathead sole out of the cooperative quota account and into the cooperative's ABC reserve account, a one-for-one correspondence of ABC reserve. No net change in the total flatfish available to the cooperative would arise, but the cooperative would give up flathead sole to gain additional access to yellowfin sole.

Table 2 Fictional illustration of proposed approach, for an Amendment 80 cooperative

Account	Flatfish species	Starting cooperative quota or reserve amount	Mid-year transfer	Ending cooperative quota or reserve amount
Amendment 80 cooperative's CQ	Flathead sole	20,506	-4,112	16,394
	Rock sole	48,691		48,691
	Yellowfin sole	81,776	+4,112	85,888
Amendment 80 cooperative's ABC reserve	Flathead sole	32,482	+4,112	36,594
	Rock sole	78,122		78,122
	Yellowfin sole	4,112	-4,112	0

The approach that is proposed in Alternative 2 would allow Amendment 80 cooperatives and CDQ groups to harvest flathead sole, rock sole, or yellowfin sole in excess of the TAC, subject to the ABC surplus that prevents the ABC of any species being exceeded. The increase of an entity's quota to harvest

one species and decrease of another quota by an equal amount would also prevent any additional risk of the sum of all groundfish TACs from exceeding the overall 2 million mt OY limit. Alternative 2 would improve the likelihood of achieving and maintaining, on a continuing basis, the OY the BSAI groundfish fisheries. Moreover Alternative 2 would not increase the likelihood that an ABC would be exceeded.

If some of the Amendment 80 QS holders choose to join the Amendment 80 limited access fishery instead of belonging to a cooperative, not all of the available Amendment 80 ABC reserve will be allocated. The Amendment 80 ABC reserve will be allocated to eligible Amendment 80 entities (i.e., cooperatives) based on the proportion of the Amendment 80 QS holdings attributable to its members. The Council did consider allocating the Amendment 80 ABC reserve based on the total proportion of CQ held by each Amendment 80 cooperative. Under such a scenario, for example, if only one Amendment 80 cooperative were active in a year, and other quota share holders choose instead to participate in the Amendment 80 limited access fishery, 100 percent of the Amendment 80 ABC reserve would have been allocated to the single cooperative, regardless of the proportion of total Amendment 80 QS held by cooperative members. However, this method for assigning the Amendment 80 ABC reserve would be inconsistent with overall Council intent that the apportionment of the Amendment 80 ABC reserve for a species would be in proportion to an Amendment 80 cooperative's holding of Amendment 80 QS for that species. It may also have interfered with the Council's intent for this action to be consistent with the management goals established under the Amendment 80 Program. By allocating the Amendment 80 ABC reserve based on CQ holdings, rather than based on overall Amendment 80 QS holdings, the action could create incentives for Amendment 80 cooperative members to exclude other Amendment 80 QS holders from cooperative membership, in order to increase the overall amount of the Amendment 80 ABC reserve available to the cooperative. As a result, the Council's preferred alternative, and the mechanism for allocating the Amendment 80 ABC reserve, removes these inconsistencies, and the Amendment 80 ABC reserve will be allocated based on a cooperative's share of the total Amendment 80 QS holdings.

Each year, NMFS allocates an amount of Amendment 80 species available for harvest, called the initial total allowable catch (ITAC), 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 CDQ Program and ICA for use by the non-CDQ and non-Amendment 80 sectors. NMFS will publish on the Alaska Region website the amount of the ITAC (TAC minus CDQ reserve) and the ABC reserve amount allocated to each Amendment 80 cooperative (Table 1). In years where no Amendment 80 cooperative is formed, flatfish exchanges could not occur among Amendment 80 Program participants, as participants in the Amendment 80 limited access fishery may not access the Amendment 80 ABC reserve.

Since the establishment of the Amendment 80 Program in 2008, either one or two Amendment 80 cooperatives have been established each year, and since 2011, all Amendment 80 QS holders have been members of an Amendment 80 cooperative. However, it is possible that Amendment 80 QS holders may be unwilling or unable to establish a cooperative in a particular year, and in this case NMFS would not assign any of the Amendment 80 ABC reserve. Also, the amount of PSC and CQ apportioned to an Amendment 80 cooperative under 50 CFR 679.91(d) and (e) will not change from the amounts based on the Amendment 80 species allocations published in the final BSAI harvest specifications. Under this alternative, NMFS will also track TACs pre- and post-season to determine the extent to which flatfish exchanges are being used.

The approach that is included in this alternative would require regulatory changes, which would need to be implemented independent of the annual harvest specification process, and also at the beginning of the harvest specification process for the following year (for example, October 2015 for the 2016 fishing year). It is likely that the Council would need to recommend, and the agency to approve, additional language in specifying the annual TACs for these species to allow sufficient flexibility for the exchanges

that are proposed under this approach to proceed. This could take the form of the Council explicitly recommending the ABC surplus or ABC reserve for the three flatfish species, as part of its specification of annual TACs.

During the course of the year, the agency may have to make inseason adjustments whenever exchanges are made by the Amendment 80 cooperatives or CDQ groups. This involves reissuing the TAC tables via *Federal Register* notice, a practice that is also undertaken by the agency when allocating the nonspecified reserve to a particular target species, or affecting a rollover of allocations among sectors. Prior to approval of a flatfish exchange (i.e., upon notice publication in the *Federal Register*), NMFS would need to consider, not only an entity's initial allocation of CQ or CDQ and ABC Reserve amount, but also account for increases in an Amendment 80 cooperative's CQ from unused ICA's, reallocations of yellowfin sole from the BSAI limited access fishery, and intercooperative CQ or CDQ transfers to ensure accurate amounts in the CDQ and CQ are available in those accounts. Also, NMFS would need to consider the amount of incidental harvest of flatfish in other fisheries and the harvest of yellowfin sole in the BSAI limited access fishery to ensure that ABCs could be exceeded. NMFS would not approve any flatfish exchange that could result in a CDQ group or Amendment 80 cooperative exceeding an ABC or ABC reserve for a flatfish species.

1.4.2.1 Allocation to CDQ groups

Section 305(i)(1)(B) of the Magnuson-Stevens Act requires the allocation (for directed and non-target catch) of 10.7 percent of the flathead sole, rock sole, and yellowfin sole fisheries to the CDQ Program. The Magnuson-Stevens Act also requires that these allocations not be exceeded, and that "the harvest of allocations under the program for fisheries with individual quotas or fishing cooperatives shall be regulated by the Secretary in a manner no more restrictive than for other participants in the applicable sector, including with respect to the harvest of non-target species." Although the Council considered alternative methods for setting ABC surplus and ABC reserve for the CDQ groups, the recommendation for establishing the ABC surplus as the TAC minus the ABC and then assigning the CDQ ABC reserve to the CDQ Program and CDQ groups was recommended because it is the only method that is consistent with Magnuson-Stevens Act and the current allocative structure for flatfish (see Section 1.4.6 for more information).

At the October and December Council meetings, during the harvest specifications process, the Council will consider the Advisory Panel recommendations and public comment for setting the TAC, by species, in the BSAI (see Section 1.2.1). The Council will be provided the ABCs by the SSC, and TAC recommendations from the Advisory Panel and public comment, and then will be able to calculate the ABC surplus (the amount of the ABC minus the TAC) for flathead sole, rock sole, and yellowfin sole. A table will be published in the proposed and final harvest specifications that lists the ABC surplus amounts for each of these three flatfish species, and the amounts that represent the allocation of 10.7 percent of the ABC surplus amount to the CDQ Program, as the CDQ ABC reserve, and 89.3 percent to the Amendment 80 cooperatives as ABC reserves for each cooperative (see illustrative values for 2013 in Table 1).

The CDQ Program allocation equals 10.7 percent of the TAC, plus 10.7 percent of the ABC reserve, or 10.7 percent of the total amount available in each of the three flatfish fisheries, as required by the Magnuson-Stevens Act. The CDQ reserve is then allocated to the individual CDQ groups in accordance with the requirements of the Magnuson-Stevens Act. Of the 10.7 percent of these target species that is allocated to the CDQ Program, 10 percent is allocated in fixed percentages, while the remaining 0.7 percent is allocated among CDQ groups based on the percentage allocations agreed on by the Western Alaska Community Development Association Board of Directors (WACDA), serving in its capacity as the CDQ Program Panel. WACDA would have the discretion to decide how to allocate the 0.7 percent of the CDQ ABC reserve that the Panel is authorized to allocate, under section 305(i)(1)(C) of the

Magnuson-Stevens Act (16 U.S.C. 1855(i)(1)(C)), to each of the six CDQ groups. For the purposes of this analysis, however, we assume that under both methodologies, the ABC reserve for each species would be allocated among groups in an identical manner to how target species are allocated. NMFS will publish on the Alaska Region website the amount of the 10.7 percent of the TAC and the ABC reserve amount allocated to each CDQ group. Table 3 provides an example using the 2013 harvest specification amounts.

Table 3 Illustration of CDQ Program quota categories, target CDQ reserves, allocation percentages, and group quotas, using 2013 values

Groundfish species	2013 TAC and ABC reserve	Program allocations	CDQ Reserve	Target and effective percentage allocations						CDQ Group Amounts					
				APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
	mt	percentage	Mt	metric tons											
Yellowfin Sole	198,000	0.10	19,800	28%	24%	8%	6%	7%	27%	5,544	4,752	1,584	1,188	1,386	5,346
		0.007	1,386	24%	23%	8%	11%	11%	23%	327	317	111	158	158	315
		combined	21,186	28%	24%	8%	6%	7%	27%	5,871	5,069	1,695	1,346	1,544	5,661
ABC reserve	8,000	10.70	856	28%	24%	8%	6%	7%	27%	237	205	69	54	62	229
Rock Sole	92,380	0.10	9,238	24%	23%	8%	11%	11%	23%	2,217	2,125	739	1,016	1,016	2,125
		0.007	647	25%	23%	7%	10%	10%	24%	162	149	48	65	67	155
		combined	9,885	24%	23%	8%	11%	11%	23%	2,379	2,274	787	1,081	1,083	2,280
ABC reserve	121,620	10.70	13,013	25%	23%	7%	10%	10%	24%	3,250	3,000	975	1,317	1,357	3,114
Flathead Sole	22,699	0.10	2,270	20%	21%	9%	15%	15%	20%	454	477	204	340	340	454
		0.007	159	21%	22%	7%	15%	14%	21%	33	36	11	23	23	33
		combined	2,429	20%	21%	9%	15%	15%	20%	487	512	215	364	363	487
ABC reserve	45,201	10.70	4,837	21%	22%	7%	15%	14%	21%	1,002	1,078	345	710	696	1,005
Total TAC			33,499							8,737	7,855	2,698	2,791	2,991	8,428
Total CDQ ABC reserve			18,706							4,490	4,283	1,389	2,081	2,116	4,347

A CDQ group may choose to make use of the flatfish flexibility program. The group may choose to transfer a portion of the TAC they will not harvest of, say, species 1, for an equal amount of their CDQ reserve that they will harvest of species 2. Using 2013 harvest specifications for this example, Table 3 indicates that there are CDQ reserves that would have been higher than the CDQ TAC allocation. However, the group may only access as much of the CDQ ABC reserve as the group is allocated and is willing to exchange for their CDQ TAC allocation. The same as would be the case for each Amendment 80 cooperative. NMFS is able to modify the catch accounting system to enable the CDQ groups to make these transfers on the web-based application, as is currently in place for quota management.

1.4.3 Alternative 3 (Preferred Alternative, as modified by Option 1)

Operationally, Alternative 3 is very similar to Alternative 2, with one primary exception. After the ABC surplus (i.e., the difference between ABC and TAC) for flathead sole, rock sole, and/or yellowfin sole has been determined, the Council may decide to set aside a portion of the ABC surplus as a buffer for socioeconomic and/or biological considerations. The remainder would be the ABC reserve amount (ABC, minus TAC, minus the socioeconomic/biological/ecological amount), and this ABC reserve would be allocated between Amendment 80 cooperatives and the CDQ Program, as outlined in Alternative 2. Eligible entities would be able to exchange their yellowfin sole, flathead sole, and/or rock sole quota share for an equivalent amount of their allocation of the ABC surplus for one or both of the other species. Table 4 provides an example illustrating the Alternative 3 approach with 2013 values. A similar table

would be published as part of the harvest specifications process. The table illustrates 2013 OFL, ABC, and TAC; a place holder for the Council’s discretionary buffer; the ABC reserve; the CDQ ABC reserve (10.7 percent); and the Amendment 80 Cooperative ABC reserve (89.3 percent) amounts. The CDQ and Amendment 80 Cooperative ABC reserves would be further allocated among the CDQ groups, and the Amendment 80 cooperatives, as appropriate (and as described under Alternative 2).

Table 4 Proposed approach for calculating the ABC reserves with the Council’s discretionary buffer, under Alternative 3, illustrated with 2013 values (mt).

Species	OFL	ABC	TAC	Council buffer	ABC reserve	CDQ ABC reserve	Amendment 80 Cooperative ABC reserve
				<i>Expressed as %</i>	<i>= ABC-TAC- (% Council buffer x (ABC-TAC))</i>	<i>10.7% of ABC reserve</i>	<i>89.3% of ABC reserve</i>
				<i>or mt</i>	<i>= ABC-TAC-Council buffer</i>		
Yellowfin sole	220,000	206,000	198,000	0% or 0 mt	8,000	856	7,144
Rock sole	241,000	214,000	92,380	0% or 0 mt	121,620	13,013	108,607
Flathead sole	81,500	67,900	22,699	0% or 0 mt	45,201	4,837	40,364

The Council would need to identify the ABC reserve for flathead sole, rock sole, and yellowfin sole, annually, as part of its harvest specification recommendations. The Council would also annually need to provide some rationale for choosing (or not choosing) the Council’s discretionary buffer. At the time of final action, Council staff had recommended that “[i]f the Council ultimately chooses Alternative 3 as its preferred alternative, it would be helpful to articulate a rationale or sample criteria the Council may use to guide whether it is necessary to incorporate a buffer in the ABC reserve in a particular year, and if so at what level.” This recommendation was provided to assist Council and NMFS staff when developing rule making. The Council considered these factors and noted that the Council may wish to consider a broad range of factors when determining the appropriate ABC reserve amount. For example, the amount of harvest in the ICA can be uncertain from year to year because it is difficult to predict specific incidental harvest rates in the non-CDQ and non-Amendment 80 fisheries. The Council and NMFS may deem it appropriate to set the ABC reserve below the ABC surplus to accommodate potential harvests of non-target species greater than the ICA. Similarly, the Council may recommend establishing an ABC reserve less than the ABC surplus to accommodate market conditions. For example, the Council may be concerned that setting an ABC reserve for a given species at a specific harvest level could increase supply, and thereby reduce demand and reduce the exvessel value of that flatfish species. These effects could affect CDQ groups, Amendment 80 cooperatives, and other fishery participants differentially. The Council, and NMFS, could weigh these socioeconomic considerations when setting the ABC reserve. The specific recommendation to set an ABC reserve below the ABC surplus for a specific flatfish species would be described in the annual harvest specifications.

1.4.4 Options 1, Option 2, and Option 3

Option 1 addresses the potential issue of having entities make numerous exchanges within a year. In order to reduce any potential administrative burden on NMFS, it may be worthwhile considering a limit on the number of times an entity may exchange with the reserve during the course of a year. Such a limit may also be appropriate for management purposes. Option 1 also includes a December 1 annual reporting deadline to provide the Council with the retrospective information on flatfish exchanges. The Council and members of the public identified the draft report as necessary to prevent gaming and maintain the open public harvest specifications process.

Options 2 and 3 would restrict flexibility in the exchange of yellowfin sole. These options may be used to address potential negative impacts of the flatfish exchanges on users of yellowfin sole in the BSAI trawl limited access sector.

Option 2 would allow only a one-way exchange for yellowfin sole. Yellowfin sole may be used to initiate a flatfish exchange for additional flathead sole or rock sole TACs, but yellowfin sole TAC may not be increased by an exchange of flathead sole or rock sole.

Option 3 would limit the amount of yellowfin sole TAC that each entity could receive from a flatfish exchange of flathead sole or rock sole, regardless of how much yellowfin sole surplus is actually available. The range of 5,000 mt to 25,000 mt was provided by the Council as an appropriate range to evaluate in the initial review draft, based on a review of the five years of data (2008 to 2012) since the implementation of Amendment 80. In only 2 of those years was there a significant ABC surplus of yellowfin sole. In the highest year, 2011, the yellowfin sole ABC surplus of 43,000 mt would have been allocated as follows: 4,600 mt to the CDQ Program, and 16,300 mt and 22,100 mt, respectively, to the Amendment 80 cooperatives.

1.4.5 Preferred Alternative

The preferred alternative, which consists of Alternative 3 as modified by Option 1, would be similar to Alternative 3 for the establishment of a discretionary Council buffer established through the harvest specifications process. The preferred alternative also would restrict the number of transfers to three per Amendment 80 cooperative and three per CDQ group each fishing year. For example under Alternative 3, quota share or CDQ reserve that is exchanged for an equivalent amount of ABC reserve may be credited back to the entity's allocation of the reserve, if unused; however, under Option 1, the transactions in this example would be debited as two of the possible three transactions limit. Moreover, the preferred alternative would maintain intercooperative transfers of quota share between Amendment 80 cooperatives.

At final action the Council recommended that NMFS implement a December 1 annual deadline for the draft cooperative reports. This deadline coincides with the harvest specifications process and meets the purpose and need for this action by enhancing the transparent process for setting the discretionary Council buffer, TAC, and ABC reserve. The draft cooperative reports must provide the Council with retrospective data on the transfers of flatfish, the number of vessels participating in the fishery, and any changes in the use of CDQ reserve by Amendment 80 fleet, when setting the fishing limits at the December meeting of the Council. The Council intended that the preliminary reports would contain information on flatfish exchanges through October 31 of that fishing year. The October 31 data requirement is necessary to provide Amendment 80 cooperatives with time to prepare each Preliminary Amendment 80 Flatfish Exchange Report for the December 1 deadline.

The preferred alternative will not affect the sustainability or catch levels of groundfish in the BSAI, because the fishery will continue to be managed under the current harvest specifications process. Similarly, the proposed action would generally improve the likelihood of achieving and maintaining, on a continuing basis, the OY of the BSAI groundfish fisheries, to the extent that the preferred alternative provides an opportunity for increased use of available TAC. This action would not increase the likelihood that the ABC or OY would be exceeded.

1.4.6 Alternatives Considered but not Further Analyzed

For the first iteration of the discussion paper, the Council requested that staff review the nonspecified reserve in the Amendment 80 sector as a means of increasing flexibility in the harvest of flatfish species. In the February 2011 discussion paper, this proposal was dismissed. The nonspecified reserve is used as a necessary management buffer to ensure that TACs are not exceeded in an open access fishery, and is incompatible with exclusive harvest privileges (i.e., because they would not provide an equitable allocation in proportion to Amendment 80 QS holdings).

The February 2011 discussion paper suggested an alternative approach, which proposed an aggregate flatfish TAC for the Amendment 80 cooperatives, and would allow Amendment 80 cooperatives to exchange some pre-determined percentage of their cooperative quota among flatfish species. The downfall of this approach is that, to avoid exceeding the ABC in all years, the percentage would likely need to be reconsidered annually with specific analysis and rulemaking, which adds impractical complexity to the annual harvest specifications process.

The February 2012 discussion paper suggested creating a new, aggregate “flatfish complex” as part of the Amendment 80 CQ or CDQ allocations, for the harvest of flathead sole, rock sole, and yellowfin sole. At the same time, a new type of quota category would have been created for the three species: the “individual biological limit,” or IBL. The purpose of creating the IBL was to ensure that the ABCs for these individual species were not exceeded. This approach met with some difficulties with respect to tracking in the catch accounting system, and other avenues were pursued.

Although the Council considered alternative methods for setting catch limits, the recommendation for establishing the ABC surplus as the TAC minus the ABC and then assigning the CDQ ABC reserve the CDQ Program and CDQ groups is consistent with the current allocative structure for CDQ flatfish. This allocative structure is consistent with Magnuson-Stevens Act provisions for flatfish allocations (see sections 305(i)(1)(B) and (C)). Specifically, section 305(i)(1)(B) of the Magnuson-Stevens Act requires the allocation (for directed and non-target catch) of 10.7 percent of the flathead sole, rock sole, and yellowfin sole fisheries to the CDQ Program. Other methods were rejected because they would not meet these statutory requirements.

1.5 Amendment 80 sector

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 C/P sector (see Section 1.2.2). The program was designed to meet the broad goals of (1) improving retention and utilization of fishery resources by the non-AFA trawl C/P fleet by extending the groundfish retention standard to all non-AFA trawl C/P vessels; (2) allocating fishery resources among BSAI trawl harvesters in consideration of historical and present harvest patterns and future harvest needs; (3) establishing a limited access privilege program (LAPP) for the non-AFA trawl C/Ps 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 C/Ps to expand their harvesting capacity into other fisheries not managed under a LAPP.

As mentioned in Section 1.4.2 of this RIR, the ITAC is the amount of the TAC remaining after allocations to the CDQ Program and ICA for use by the non-CDQ and non-Amendment 80 sectors (e.g., BSAI trawl limited access sector). The BSAI trawl limited access sector comprises all trawl participants who are not part of the Amendment 80 sector (i.e., AFA trawl C/Ps, 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 (i.e., fish that are allocated to the BSAI trawl limited access sector and ICA and projected to be unharvested can be 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 historical 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 was assigned to the BSAI trawl limited access sector than is reflected in historical catch records by that sector from 1998 through 2004. One exception to this practice 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 on September 4, 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 in the response to comments in the final rule.

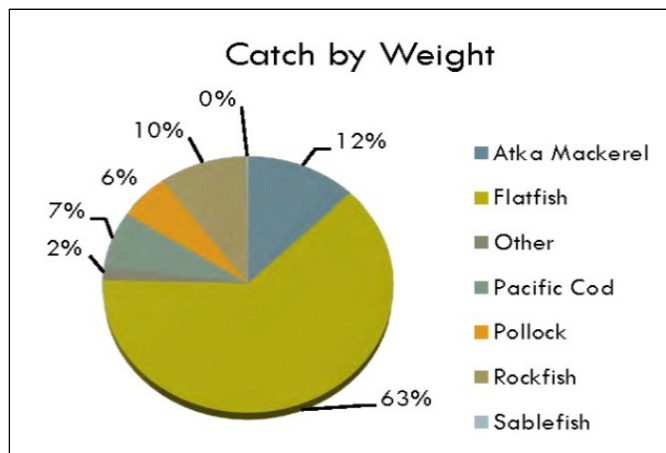
Annually, NMFS determines the division of the Amendment 80 sector's ITAC based on quota share holdings of each sector member. The portion of the TAC associated with a vessel owner's quota share is assigned to either a cooperative or a limited access fishery based on where the vessel owner assigns the vessel. 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 quota share for a given species assigns that quota share to a cooperative, one percent of that species TAC would be assigned to that cooperative for that year. If there are multiple cooperatives in the sector, the cooperatives have the ability to transfer quota share between them.

Crab and halibut PSC limits in the BSAI are apportioned among the Amendment 80 and BSAI trawl limited access sectors and within the Amendment 80 sector in a similar manner; however, PSC allowances cannot be transferred between Amendment 80 cooperatives. PSC must be avoided to the extent practicable; therefore, a PSC "allowance" is dissimilar to a quota share "allocation." A PSC allowance is a catch limit that, once reached, will result in a fishery closure to prevent further PSC occurrences. For demonstrative purposes, if the PSC allowance is 100 fish, the sector to which the PSC limit applies does not have the authority to take 100 halibut. Instead, PSC usage by a sector cannot exceed 100 fish or the fishery will be closed by NMFS. The PSC limits assigned to the Amendment 80 sector were lowered in a stepwise fashion, from 2008 to 2012, to provide additional reductions in PSC over time.⁷

Currently, there are 21 C/Ps that participate in the Amendment 80 Program in the BSAI, organized into two cooperatives. Amendment 80 vessels also act as motherships and process catch delivered from other vessels outside the sector. Figure 2 provides an illustration of the total catch composition of groundfish harvested on Amendment 80 vessels in 2011, by weight. Flatfish represent approximately 63 percent of the total catch by weight.

⁷ See Tables 35 and 36 to 50 CFR part 679 at: www.alaskafisheries.noaa.gov/regs/default.htm

Figure 2 Total catch composition of groundfish for Amendment 80 vessels in 2011, by weight.



Source: NPFMC 2012.

Since traditional flatfish fisheries in the BSAI were superseded by implementation of the Amendment 80 Program, the Amendment 80 sector has substantially increased its retained catch of groundfish, including flatfish, and especially the primary three flatfish target species (Table 5). Prior to Amendment 80, the character of the fishery was primarily a race for fish, as short seasons were closed down by reaching the halibut PSC limit. Since that time, Amendment 80 cooperatives have substantially decreased their rate of halibut PSC per mt of groundfish. Under the Amendment 80 Program, the sector has prioritized becoming more efficient with their halibut PSC allowance. For example the Amendment 80 sector has extended to year-round fishing, and participated both in flathead sole, rock sole, and yellowfin sole target fisheries and fisheries for other flatfish species for which halibut PSC was not previously available. Given the Council’s recent action to allow vessel replacement in this sector, there will likely be two to three new vessels brought into the fishery in the near future,⁸ further improving the efficiency of the fleet.

Table 5 Total and retained groundfish catch in the Amendment 80 sector, 2003 through 2012.

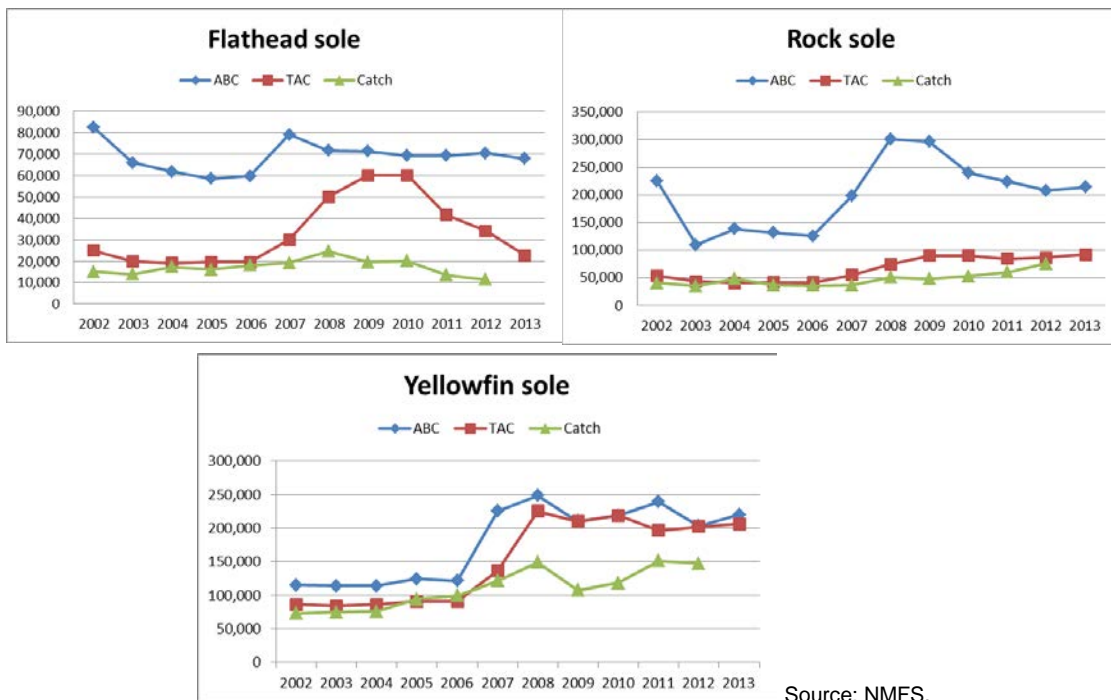
Year	All groundfish		All flatfish		Flathead sole, rock sole, and yellowfin sole	
	Total catch	% retained	Total catch	% retained	Total catch	% retained
2003	281,268	71%	141,210	70%	118,729	78%
2004	313,942	68%	155,510	64%	128,420	73%
2005	300,903	78%	158,443	76%	132,878	84%
2006	295,028	79%	156,498	76%	130,657	87%
2007	317,658	78%	172,326	74%	144,713	85%
2008	352,720	89%	230,719	89%	192,662	95%
2009	328,841	90%	190,548	90%	146,768	94%
2010	353,929	91%	216,762	91%	163,589	96%
2011	348,395	93%	224,468	94%	174,652	98%
2012	345,739	94%	224,831	95%	179,107	97%

⁸ Jason Anderson, Alaska Seafood Cooperative, personal communication, January 22, 2013.

1.5.1 Flathead Sole, Rock Sole, and Yellowfin Sole Targets

Figure 3 illustrates ABC and TAC for flathead sole, rock sole, and yellowfin sole for 2002 through 2013. In addition, Figure 3 illustrates total catch for flathead sole, rock sole, and yellowfin sole for 2002 through 2012. Table 6 lists specific values for 2008 to 2013, and identifies catch among the various entities to which TAC is apportioned. Typically, the TACs for flathead sole and rock sole are set well below the ABC. From 2008 through 2013, the yellowfin sole TAC has mostly been set at or close to the ABC, except in 2011. In harvest specifications for the most recent two years, TAC was again set almost at the ABC. Flatfish TACs are allocated among CDQ groups, Amendment 80 cooperatives, and the BSAI trawl limited access sector according to specified formulas.⁹ Typically, not all of the three flatfish TACs have been fully harvested (Table 6), primarily due to limitations associated with halibut PSC, and, more recently, Pacific cod incidental catch. Since the implementation of Amendment 80, catches of rock sole and yellowfin sole have increased substantially.

Figure 3 ABC, TAC, and total catch for flathead sole, rock sole, and yellowfin sole, 2002 through 2013.



Source: NMFS.

⁹ As described in Section 1.4.1, there is also a portion of the TAC that is reserved for an incidental catch allowance for catch in the non-CDQ and non-Amendment 80 sectors.

Table 6 ABC, TAC, and total catch, by sector, of BSAI flathead sole, rock sole, and yellowfin sole, 2008 through 2013.

Species and year	ABC	TAC	Total Catch									
			Amendment 80: Best Use Cooperative ² / Alaska Seafood Cooperative ³		Amendment 80: limited access ⁴ / Alaska Groundfish Cooperative ⁵		Total Amd 80	BSAI trawl limited access		CDQ Program (divided among 6 CDQ groups)		Incidental Catch Allowance ¹
			Catch	% of cooperative's year-end TAC ⁶	Catch	% of ltd access/ cooperative's year-end TAC ⁶	Catch as % of combined Amd 80 year-end TAC	Catch	% of limited access' year-end TAC ⁶	Catch	% of CDQ sector's TAC	Catch
Flathead sole												
2008	71,700	50,000	16,931	47%	*	*	*			500	9%	*
2009	71,400	60,000	12,031	28%	1,893	33%	28%			508	8%	2,535
2010	69,200	60,000	13,913	32%	611	11%	30%			943	15%	1,061
2011	69,300	41,548	6,964	23%	461	20%	23%			674	15%	2,575
2012	70,400	34,134	5,472	24%	318	14%	23%			506	14%	2,662
2013	67,900	22,699										
Rock sole												
2008	301,000	75,000	34,982	74%	*	*	*			1,917	24%	*
2009	296,000	90,000	33,668	59%	3,923	21%	50%			893	9%	10,232
2010	240,000	90,000	44,558	76%	4,693	27%	64%			1,337	14%	2,634
2011	224,000	85,000	42,388	76%	5,071	33%	67%			3,306	36%	9,867
2012	208,000	87,000	46,656	89%	14,212	94%	90%			6,167	66%	9,063
2013	214,000	92,380										
Yellowfin sole												
2008	248,000	225,000	84,853	86%	*	*	*	19,382	44%	7,671	32%	*
2009	210,000	210,000	69,564	79%	23,279	40%	61%	10,394	27%	1,741	8%	5,126
2010	219,000	219,000	74,022	67%	21,003	35%	56%	19,485	46%	3,053	13%	4,659
2011	239,000	196,000	85,418	95%	21,487	42%	76%	25,375	74%	16,308	78%	5,457
2012	203,000	202,000	85,216	92%	16,791	34%	72%	28,498	79%	14,016	65%	5,090
2013	206,000	198,000										

¹ A portion of the TAC is also reserved as an incidental catch allowance (ICA) for all incidental catch of these species in non-Amendment 80 (including directed BSAI trawl limited access for yellowfin sole) and non-CDQ fisheries.

² Best Use Cooperative 2008–2009; ³ Alaska Seafood Cooperative 2010–2011; ⁴ limited access 2008–2010; ⁵ Alaska Groundfish Cooperative 2011. Although the Amendment 80 cooperatives have changed over time, the same vessels are essentially represented in each column.

⁶ Catch as a proportion of the sector's final quota at the end of the year; may include reallocations from the ICA or BSAI trawl limited access sector, and/or transfers between Amendment 80 cooperatives.

* Confidential data

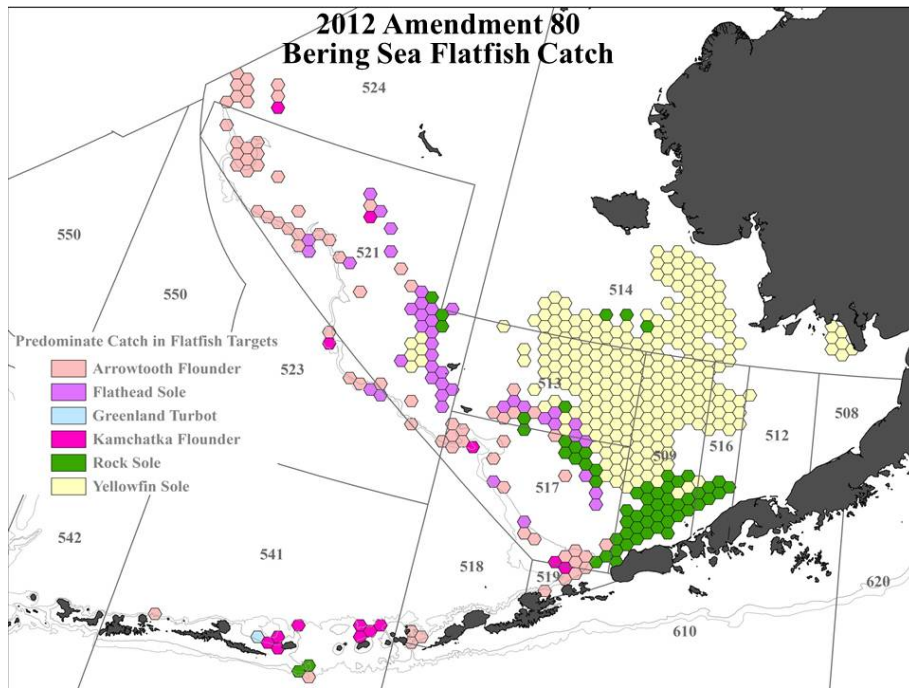
Source: NMFS

1.5.2 Seasonal and Temporal Patterns of Flatfish Fishing

Figure 4 shows the distribution of Amendment 80 flatfish catch in the BSAI, by target. Yellowfin sole are fished predominately on the Bering Sea shelf, while flathead sole are fished in deeper waters, closer to the shelf break. Rock sole are primarily targeted immediately north of the western end of the Alaska Peninsula. Figure 5 illustrates the seasonal pattern of catch by the Amendment 80 sector in the BSAI for the years 2008 through 2012. The significant decline in catch in July is attributable to Amendment 80 vessel participation in the Gulf of Alaska (GOA) rockfish fisheries. Of the allocated flatfish targets, rock sole is mainly prosecuted in the first months of the year when the fish can be found in spawning aggregations and are more valuable because the females carry mature roe. Yellowfin sole is prosecuted in spring and early summer, and fishing resumes again after the GOA rockfish fishery, in the late summer and fall. In recent years, the target fishery for flathead sole has not been comprehensively pursued, as incidental catch of other constraining species has been high. Management measures that went into effect in 2011 to protect the Endangered Species Act-listed western distinct population segment of the Steller

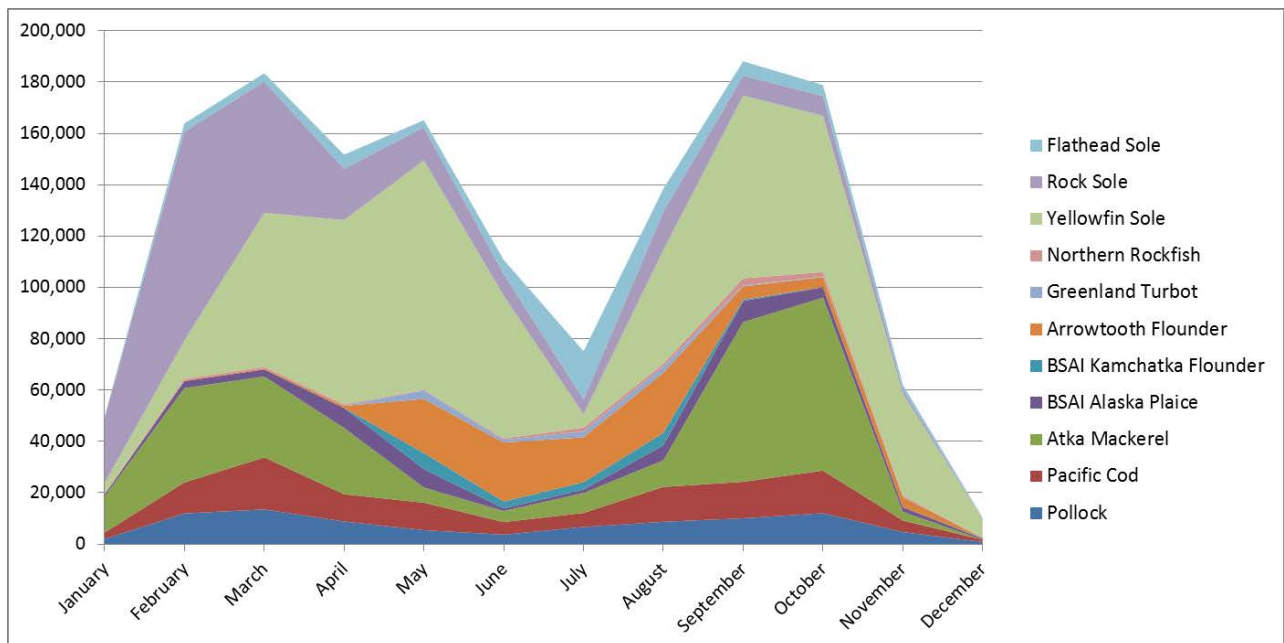
sea lion have constrained the Aleutian Islands Atka mackerel and Pacific cod fisheries that have typically been prosecuted by the Amendment 80 sector.¹⁰

Figure 4 Distribution of flatfish species caught by trawl gear in the BSAI, 2012.



Source: NMFS.

Figure 5 BSAI groundfish total catch by Amendment 80 vessels, summed for 2008 through 2012, by month.



Source: AKFIN.

¹⁰ See Interim Final Rule to implement Steller sea lion protection measures (75 FR 77535, December 13, 2010).

1.5.3 Catch Composition of Flatfish Fisheries

The flatfish fisheries are multispecies fisheries in which incidental catch species are often an important economic component of the catch. Table 7 summarizes the catch composition in the yellowfin sole target fishery, which is the most important flatfish fishery by volume, for the combined years 2008 through 2012. While catch composition varies by month, the primary incidental catch species in the yellowfin sole fishery, by volume, are Pacific cod, Alaska plaice, pollock, and rock sole. Flathead sole, arrowtooth flounder, and “other” flatfish are also caught incidentally along with very small amounts of “other” species.

Table 7 Catch composition in the yellowfin sole target fishery for combined years 2008 through 2012.

Species	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Yellowfin Sole	2,557	11,607	53,469	64,259	87,835	54,581	3,189	34,774	68,849	59,587	39,678	7,431
Pacific Cod	256	480	1,951	5,749	6,642	2,863	670	7,729	10,446	13,312	4,271	906
Alaska Plaice	196	1,446	5,719	11,592	10,767	1,429	173	4,118	9,559	6,255	3,182	665
Pollock	150	614	3,019	3,862	2,707	59	93	1,681	6,721	10,627	3,988	785
Rock Sole	59	813	3,720	5,480	8,003	5,159	684	6,369	5,760	4,655	990	322
Flathead Sole	85	662	1,075	1,218	621	5	51	1,214	3,370	3,844	1,636	283
Arrowtooth Flounder	14	68	124	121	22	6	28	333	1,849	3,724	1,601	246
Other Flatfish	1	19	130	504	1,974	1,978	121	32	7	3	3	2

Source: AKFIN.

Incidental catch composition in the yellowfin sole target fishery is not consistent by month, nor is it consistent in the same month from year to year. Especially for incidental catch species that are also hard capped, this variability can result in a management challenge as vessels try to predict which incidental catch species will be needed to prosecute the yellowfin sole fishery later into the year. Table 8 demonstrates inter-annual variability, by month, in the incidental catch composition of rock sole in the yellowfin target fishery. For example, in August and September 2010, rock sole catch was higher than in the following year. As rock sole can be difficult to target later in the year, fishermen who curtailed their rock sole fishing early in the year in order to have sufficient rock sole quota shares available for yellowfin sole fishing in the later months may have been left with inaccessible rock sole quota share at year’s end.

Table 8 Rock sole as a proportion of total groundfish in the yellowfin sole target fishery, by month, 2008 through 2012.

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual
2008	4%	7%	6%	3%	9%	4%	19%	4%	5%	4%	3%	3%	5%
2009	*	2%	5%	5%	4%	4%	21%	11%	6%	4%	1%	*	6%
2010	2%	6%	11%	7%	4%	8%	13%	17%	13%	6%	2%	*	7%
2011		2%	3%	4%	7%	12%	11%	12%	5%	4%	2%	2%	5%
2012	1%	*	10%	9%	8%	5%	*	9%	3%	6%	1%	5%	5%

* Confidential; Source: AKFIN.

Table 9 provides the Amendment 80 sector’s utilization of Pacific cod, halibut PSC, and red king crab PSC since the program’s inception in 2008. The first two of these species have been constraining at times for the Amendment 80 sector. With the implementation of the program, Amendment 80 cooperatives have prioritized becoming more efficient with conservation of their halibut PSC allowance and have substantially decreased their rate of halibut PSC per mt of groundfish. Pacific cod are also caught in all target flatfish fisheries. Since 2008, the sector’s allocation of cod has proven to be more constraining than halibut PSC on target flatfish fisheries, as is evident from the higher utilization rates.

A further constraint may come from red king crab PSC limits in Zone 1, which affect the rock sole fishery. In 2012, the red king crab PSC limit for all groundfish fisheries was lowered, because the crab stock had fallen below a biomass threshold value. Based on red king crab fishery data in 2011, this lower limit could have been constraining; however, vessels were able to avoid red king crab, and PSC usage

ended up being substantially lower in 2012. A regulatory requirement has been established that requires that no more than 25 percent of the total BSAI trawl red king crab PSC limit may be taken by non-pelagic trawl vessels in the Red King Crab Savings Subarea; Table 9 also illustrates combined Amendment 80 catch in the Red King Crab Savings Subarea. While triggering the limit did close the area prior to the implementation of Amendment 80, this limit has not been constraining in recent years.

Table 9 Catch of Pacific cod and halibut and red king crab prohibited species catch (PSC), 2008 through 2012, for the Amendment 80 sector.

Species	Year	Amendment 80 allowance	Amendment 80: Best Use Cooperative ¹ / Alaska Seafood Cooperative ²		Amendment 80: limited access ³ / Alaska Groundfish Cooperative ⁴		Combined Amendment 80	
		mt	Catch	% of cooperative's allocation ⁵	Catch	% of ltd access/ cooperative's allocation ⁵	Catch	Catch as % of combined Amd 80 year-end TAC
Pacific cod	2008	20,429	13,518	79%	*	*	*	*
	2009	24,125	19,637	95%	2,025	58%	21,662	90%
	2010	24,028	20,023	99%	4,005	121%	24,028	100%
	2011	27,277	21,143	91%	3,599	89%	24,742	91%
	2012	33,232	23,917	85%	4,074	81%	27,991	84%
Halibut PSC	2008	2,525	1,293	70%	*	*	*	*
	2009	2,475	1,496	83%	577	85%	2,073	84%
	2010	2,765	1,668	80%	587	87%	2,255	82%
	2011	2,375	1,323	77%	488	73%	1,811	76%
	2012	2,325	1,501	87%	444	73%	1,945	84%
Red king crab (RKC) PSC (BSAI)	2008	109,915	48,960	62%	29,460	94%	78,420	71%
	2009	104,427	50,406	68%	9,023	30%	59,429	57%
	2010	146,920	48,624	41%	5,693	20%	54,317	37%
	2011	130,432	24,557	26%	6,407	18%	30,964	24%
	2012	43,293	13,378	49%	10,785	68%	24,163	56%
RKC PSC within the Red King Crab Savings Subarea ⁶	2008	49,250					26,528	54%
	2009	49,250					11,513	60%
	2010	49,250					14,620	30%
	2011	49,250					10,238	21%
	2012	24,250					5,345	22%

¹ Best Use Cooperative 2008–2009; ² Alaska Seafood Cooperative 2010–2011; ³ limited access 2008–2010; ⁴ Alaska Groundfish Cooperative 2011. Although the Amendment 80 cooperatives have changed over time, the same vessels are essentially represented in each column.

⁵ Catch as a proportion of the cooperative's final allocation at the end of the year; may include reallocations from the ICA or BSAI trawl limited access sector, and/or transfers between Amendment 80 cooperatives.

⁶ The red king crab PSC allowance in the Red King Crab Savings Subarea applies to all non-pelagic trawl sectors, not just Amendment 80.

* Confidential data. Source: NMFS

Table 10 provides halibut mortality rates in the different flatfish target fisheries, by month, for the combined years 2008 through 2012. Note that it may be helpful to evaluate this table in conjunction with Figure 5, which illustrates the relative patterns of these target fisheries throughout the year; many of the instances of high halibut PSC mortality equate to periods where there is relatively little effort occurring in that target fishery. Referring to the previously mentioned rock sole example, it can be noted that halibut PSC mortality in the rock sole target fishery is generally higher, later in the year, when fishermen are also having difficulty targeting rock sole, than earlier when the fish are aggregated for spawning. It may also be that fishermen ended the year with unharvestable rock sole quota, because it was not possible to target rock sole without excessive halibut PSC.

Table 10 Halibut mortality rates for Amendment 80 vessels in the BSAI, by month, in flatfish target fisheries, for combined years 2008 through 2012

Species	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Flathead Sole	0.004	0.005	0.013	0.014	0.014	0.014	0.007	0.004	0.004	0.008	0.016	0
Rock Sole	0.008	0.008	0.005	0.007	0.017	0.010	0.010	0.012	0.010	0.037	0.032	0
Yellowfin Sole	0.003	0.005	0.006	0.003	0.003	0.005	0.019	0.007	0.004	0.007	0.013	0.020
Arrowtooth Flounder	0	0	0.046	0.026	0.013	0.014	0.007	0.007	0.010	0.006	0.012	0

Source: AKFIN.

1.5.4 Dependency on Flatfish

The three target flatfish contribute a significant proportion of the total gross revenue of the Amendment 80 sector. Table 11 identifies the gross revenue contributed by each species, from 2006 through 2011, and the proportion the three species represent of total BSAI and GOA groundfish gross revenue for the sector. Gross revenue information in Table 11 is specific to the individual target species and does not include gross revenue from incidental catch species harvested in the flathead sole, rock sole, or yellowfin sole target fisheries. The three species have represented just over a third of total gross revenue in the last three years.

Table 11 Contribution of flathead sole, rock sole, and yellowfin sole gross revenue to total BSAI and GOA groundfish gross revenue for Amendment 80 vessels (in millions \$).

Year	Flathead sole	Rock sole	Yellowfin sole	Total BSAI and GOA groundfish gross revenue	3 species as % of total gross revenue
2006	15.49	29.95	69.85	274.41	42%
2007	13.70	24.86	77.00	296.17	39%
2008	18.25	37.62	82.90	319.41	43%
2009	10.60	27.05	57.07	274.24	35%
2010	12.93	37.63	66.70	305.06	38%
2011	8.61	48.18	98.84	437.85	36%

1.5.5 Products and Markets

Relative value is different for flathead sole, rock sole, and yellowfin sole. Table 12 provides the price per pound of allocated flatfish species and of those species caught incidentally in flatfish targets. The table does not distinguish pricing between rock sole with roe and other rock sole. A January 2012 estimate, averaging head and gut prices across fish sizes, identifies rock sole with roe as the most valuable target flatfish at approximately \$ 1.29/lb., with rock sole at \$ 0.70/lb.¹¹

Table 12 Price per pound of flatfish target species and major incidental catch species, 2008 through 2011.

Species	2008	2009	2010	2011	
Allocated flatfish	Flathead Sole	0.78	0.60	0.69	0.90
	Rock Sole	0.77	0.62	0.61	0.77
	Yellowfin Sole	0.56	0.50	0.54	0.64
Major incidental catch species in flatfish targets	Alaska Plaice	0.41	0.44	0.46	0.51
	Arrowtooth Flounder	0.49	0.48	0.48	0.72
	Other Flatfish	1.02	1.11	0.96	1.30
	Pacific Cod	1.57	0.84	1.07	1.34
	Pollock	0.67	0.64	0.61	0.73

Primary and secondary production by the Amendment 80 sector is described in detail in previous analyses, notably the Amendment 80 analysis (NPFMC 2007). Most flatfish, by volume, are also headed and gutted, in some instances with the roe left intact. A large percentage of flatfish are frozen whole

¹¹ John Gauvin, Alaska Seafood Cooperative. (AKSC) personal communication, January 12, 2012.

while a small percentage, primarily yellowfin sole, are made into kirimi, a steak-like product. A large majority of the primary processed output of this fleet is shipped to Asia for reprocessing, while a small portion of the output remains in the United States, going directly to domestic markets. In flatfish markets, the size (grade) of the fish is extremely important to the product flow. In general, there are four or five grades of flatfish with each grade having a specific market. A distinguishable market also exists for rock sole with roe, primarily in Japan.

While these production trends can be discerned, on the whole, it is difficult to assess the distribution of the sector's production among consumer markets, as much of the reprocessed fish enters the world market. As a consequence, effects of production of the fleet on consumer markets are far reaching and difficult to estimate.

1.6 CDQ Sector

The CDQ Program was initially implemented by the Council and NMFS in 1992, with allocations of the pollock TAC, in accordance with general provisions of the Magnuson-Stevens Act. The Magnuson-Stevens Act did not include provisions that specifically addressed the CDQ Program. In 1996, Congress specifically authorized the CDQ Program in the Magnuson-Stevens Act:

- (i) to provide eligible western Alaska villages with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area;
- (ii) to support economic development in western Alaska;
- (iii) to alleviate poverty and provide economic and social benefits for residents of western Alaska; and
- (iv) to achieve sustainable and diversified local economies in western Alaska.

The CDQ Program was designed to improve the social and economic conditions in western Alaska communities by facilitating their economic participation in the BSAI fisheries. Currently, 65 communities participate in the CDQ Program. Approximately 27,000 people reside in CDQ communities. These communities have formed six non-profit corporations to manage and administer the individual CDQ allocations, investments, and economic development projects. The six CDQ groups are as follows:

- Aleutian Pribilof Island Community Development Association
- Bristol Bay Economic Development Corporation
- Central Bering Sea Fishermen's Association
- Coastal Villages Region Fund
- Norton Sound Economic Development Corporation
- Yukon Delta Fisheries Development Association

The large-scale commercial fisheries of the BSAI developed in the eastern Bering Sea without significant participation from rural western Alaska communities. These fisheries are capital-intensive and require large investments in vessels, infrastructure, processing capacity, and specialized gear. The CDQ Program was developed to redistribute some of the BSAI fisheries' economic benefits to adjacent communities by allocating a portion of commercially important BSAI species to such communities as fixed shares, or quota, of groundfish, halibut, and crab. The percentage of each annual BSAI catch limit allocated to the CDQ Program varies by both species and management area. These allocations, in turn, provide an opportunity for residents of these communities to both participate in and benefit from the BSAI fisheries.

The original fishery management objectives for the groundfish, halibut, and crab CDQ fisheries include, in general, limiting the catch of all species to the amount allocated to the program and not allowing catch

made under the program to accrue against non-CDQ portions of TAC limits or PSC limits. These objectives also include managing target and non-target species allocations made to the CDQ groups with the same level of strict quota accountability, and holding each CDQ group responsible not to exceed any of its groundfish CDQ allocations.

Currently, the CDQ Program receives apportionments of the annual catch limits for a variety of commercially valuable species in the BSAI, which are in turn allocated among the six different non-profit managing organizations representing different affiliations of communities (CDQ groups). CDQ groups use the revenue derived from the harvest of their fisheries allocations as a basis both for funding economic development activities and for providing employment opportunities. Thus, the successful harvest of CDQ Program allocations is integral to achieving the goals of the program. The fisheries management regulations governing the CDQ fisheries are integrated into the regulations governing the non-CDQ fisheries for groundfish, halibut, and crab. NMFS and the State of Alaska administer the CDQ Program.

Annual CDQ allocations provide a revenue stream for CDQ groups through various channels, including the direct catch and sale of some species, leasing quota to various harvesting partners, and income from a variety of investments. In 2011, the six CDQ groups earned nearly \$ 311.5 million in revenue and had operating expenses of about \$ 248.8 million; net assets increased in 2011 by nearly \$ 63 million. About 25 percent of revenues came from CDQ royalties. Direct income exceeded royalty income for the first time in 2004. That pattern has continued since that time, with direct income ranging from 55 percent to 83 percent, annually (Blandford, personal communication¹²).

One of the most tangible direct benefits of the CDQ Program has been employment opportunities for western Alaska village residents. CDQ groups have had some successes in securing career track employment for many residents of qualifying communities, and have opened opportunities for non-CDQ Alaskan residents, as well. Jobs generated by the CDQ Program included work aboard a wide range of fishing vessels, internships with the business partners or government agencies, employment at processing plants, and administrative positions within the CDQs, themselves, including senior management positions. In 2011, the CDQ groups made over \$ 151 million in fisheries-related investments and paid over \$ 45.5 million in payroll to about 2,400 persons. CDQ processors, fish-buying stations, and other fisheries businesses made ex-vessel payments of over \$ 32.2 million to more than 1,360 permit holders. The Western Alaska Community Development Association estimates that there were an additional 2,000 crew positions associated with those permits. The CDQ groups contributed almost \$ 7.3 million to community infrastructure and over \$ 17.7 million in other community benefit projects. The groups granted over 725 scholarships, and additional training opportunities for 865 eligible residents (Blandford, personal communication).

The fishery resources allocated under the CDQ Program are under Federal jurisdiction; however, the WACDA panel coordinates and facilitates activities of the individual CDQ groups and generally administers aspects of the CDQ Program not otherwise administered through the State or NMFS. The State is primarily involved in the day-to-day administration and oversight of the economic development aspects of the program, reviewing quota allocations for each CDQ group on a 10-year basis (as required by 16 U.S.C. 1855(i)(1)(H)), and the management of the CDQ crab fisheries. NMFS is primarily responsible for groundfish and halibut CDQ fisheries management.

¹² Aggie M. Blandford, Executive Director, WACDA. Email on January 13, 2013.

1.6.1 Prosecution of flatfish fisheries

The CDQ Program is allocated 10.7 percent of the target flatfish species. Under the Magnuson-Stevens Act (as revised by section 416(a) of the Coast Guard and Maritime Transportation Act of 2006), the primary portion of each CDQ reserve (10 percent of the TAC) must be allocated among the six CDQ groups based on the percentage allocations that were in effect on March 1, 2006. The balance of each reserve (0.7 percent of the TAC) is allocated among CDQ groups based on the percentage allocations agreed on by the WACDA Board of Directors, serving in its capacity as the Administrative Panel (16 U.S.C. 1855(i)(1)(G)). Table 13 identifies the final allocation percentages and flatfish allocation amounts by CDQ group for 2012, taking into account amounts allocated under both processes. Relative proportions to each group vary by species. For example, three of the six CDQ groups are each allocated approximately a quarter of the CDQ Program's apportionment of yellowfin sole, while the other three groups all share the remaining amount. For flathead sole, the allocations to each group are more comparable, with only one group allocated a substantially smaller amount. For purposes of this analysis, it is assumed that the CDQ ABC surplus proposed under Alternatives 2 and 3 would be allocated to each CDQ group using the same allocations in use for flathead sole, rock sole, and yellowfin sole TAC.

Table 13 2012 CDQ allocation percentages and allocations for flatfish and incidentally caught species, by CDQ group.

Species	CDQ Program reserve (mt)		CDQ groups					
			APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
Flathead sole	3,652	%	20.1%	21.1%	8.9%	15.0%	15.0%	20.1%
		mt	732	770	324	547	546	732
Rock sole	9,309	%	24.1%	23.0%	8.0%	11.0%	11.0%	23.1%
		mt	2,240	2,141	741	1,018	1,020	2,147
Yellowfin sole	21,614	%	27.7%	23.9%	8.0%	6.4%	7.3%	26.7%
		mt	5,990	5,171	1,730	1,373	1,575	5,775
Pacific cod	27,927	%	15.5%	20.9%	8.9%	17.9%	17.9%	19.0%
		mt	4,314	5,847	2,475	5,006	4,989	5,296
Halibut PSC	393	%	22%	22%	9%	12%	12%	23%
		mt	86	86	35	47	47	90
Red king crab PSC	10,379	%	24%	21%	8%	12%	12%	23%
		mt	2,491	2,180	830	1,245	1,245	2,387
Arrowtooth Flounder	2,675	%	22%	22%	9%	13%	12%	22%
		mt	589	589	241	348	321	589

Note, allocation percentages may not equal 100 percent due to rounding. Source: NMFS.

Table 6 identifies the CDQ Program's utilization of their flatfish quotas for 2008 through 2012. In the first years of the Amendment 80 Program, the CDQ Program as a whole utilized only a small proportion of its flatfish quota share. In 2011 and 2012, however, the program harvested 78 percent and 65 percent of its yellowfin sole quota share, respectively, and in 2012, harvested 66 percent of its rock sole quota share. Prior to 2011, the CDQ groups relied primarily on the Amendment 80 sector to harvest their quota share, especially for yellowfin sole and rock sole (Table 14). Beginning in 2011, some CDQ groups have contracted outside of the Amendment 80 sector to harvest their yellowfin sole and rock sole.

Table 14 Proportion of CDQ flatfish catch harvested by the Amendment 80 sector, 2008 through 2012.

Species	2008	2009	2010	2011	2012
Flathead sole	49%	57%	73%	41%	34%
Rock sole	84%	74%	96%	69%	51%
Yellowfin sole	99%	100%	99%	65%	52%

Source: compiled by AKFIN.

The CDQ groups vary individually in the degree to which they harvest their Amendment 80 flatfish species. This may result from a number of different factors. Each group prioritizes their CDQ portfolio differently, and CDQ groups receive apportionments of many other BSAI groundfish target species, in addition to the Amendment 80 species. In general, the CDQ groups have a single contract with a partner company to harvest all Amendment 80 species, which include not just flatfish, but also Atka mackerel and rockfish, so it is also possible that within the contract, the group prioritizes other Amendment 80 species over flatfish harvest.

1.7 BSAI trawl limited access sector

While flathead sole and rock sole are entirely allocated to the Amendment 80 sector, yellowfin sole may be targeted by vessels in the BSAI trawl limited access sector. Since 2008, vessel participation in the limited access fishery has ranged from 9 to 16 vessels, annually. The fishing behavior of participants varies and can include both C/Ps and harvesting vessels delivering to vessels acting as motherships in any fishing year. As identified above, some Amendment 80 vessels act as motherships, receiving catch from vessels fishing in the BSAI limited trawl access sector. In some cases, the same company may have vessels fishing in both sectors.

Table 6 shows utilization of the yellowfin sole TAC by the sector in 2008 through 2012. In the first three years of the program, the sector harvested less than half of its target allocation; however, this proportion increased in 2011 and 2012, to 74 percent and 79 percent, respectively.

Under the provisions of the Amendment 80 Program, yellowfin sole TAC and prohibited species allowances can be reallocated from the BSAI trawl limited access sector to the Amendment 80 cooperatives during the course of the year. Some amount of yellowfin sole was reallocated in every year of the program, except 2012. In 2008 and 2009, 6,000 mt of yellowfin sole was reallocated; in 2010, 20,000 mt, and in 2011, 2,000 mt of yellowfin sole was reallocated. Crab PSC allowances were also reallocated in 2010 and 2011. Amendment 80 vessels, benefiting from the reallocation of unused BSAI trawl limited access fishery yellowfin sole TAC and PSC, may also participate in the limited access fishery, as noted earlier in this section.

1.8 Potential Effects of the Alternatives

1.8.1 Alternative 1

The Council has identified achieving and maintaining the OY in the BSAI groundfish fishery as a purpose for this action. Since the implementation of the Amendment 80 Program in 2008, flatfish TACs are consistently underharvested, due to various constraints (Section 1.3). Under the status quo, the amount of unharvested TAC in the BSAI would likely remain consistently high (Table 15).¹³ Prior to the Amendment 80 Program, the flatfish TACs were set consistently below ABC (Figure 3), largely because halibut PSC limits constrained the fishery from catching more flatfish. The fishery was managed as a limited access fishery, and 15 percent of the annual TAC from the Amendment 80 species (and other, non-allocated groundfish) was allocated to a reserve at the start of the fishing year. From 1998 to 2008, for the six Amendment 80 species, 7.5 percent of the reserve was allocated to the CDQ Program and 7.5 percent was allocated to the nonspecified reserve. After 2008, for the six Amendment 80 species, the reserve received 10.7 percent of the annual TAC, and all of it was allocated to the CDQ Program. The nonspecified reserve, which still exists for other groundfish species, is designed in the FMP as a necessary management buffer to ensure that groundfish TACs are not exceeded. The TAC in the

¹³ In three of these years, 2008 through 2010, pollock biomass was low, and the aggregate BSAI TAC was set below 2 million mt (Table 15). Even in the last two years, however, when combined pollock and Pacific cod biomasses have been high once more (Table 16), the unharvested TAC is higher than in some of the earlier years.

nonspecified reserve is not designated by stock or stock complex, and can be apportioned to the fisheries that contributed to the reserve during the fishing year, in amounts and by species that are determined appropriate by NMFS, as long as apportionment will not result in overfishing. Consequently, prior to the implementation of Amendment 80, the nonspecified reserve allowed NMFS to provide additional harvest opportunities for target fisheries, including flatfish, resulting in some flexibility for vessels participating in these multispecies fisheries, if incidental catch composition or other conditions changed throughout the fishing year.

Table 15 BSAI TAC, catch, and unharvested TAC, 2002 through 2012.

Year	BSAI Total TAC	BSAI Initial TAC plus CDQ allocation ¹	BSAI Catch	Unharvested BSAI TAC, plus nonspecified reserve remaining
2002	2,000,000	1,793,115	1,761,866	238,134
2003	2,000,000	1,806,915	1,794,847	205,153
2004	2,000,000	1,999,998	1,979,143	20,857
2005	2,000,000	1,999,998	1,981,109	18,891
2006	2,000,000	1,995,768	1,976,553	23,447
2007	2,000,000	1,969,270	1,856,733	143,267 ²
2008	1,838,345	1,815,038	1,540,610	297,735
2009	1,681,586	1,659,440	1,335,434	346,152
2010	1,677,154	1,655,356	1,351,699	325,455
2011	2,000,000	1,995,796	1,818,065	181,935
2012	2,000,000	1,994,584	1,851,716	148,284

¹ These figures represent the sum of ITAC and CDQ allocations. Not included in these figures is any amount of the annual species TAC that was initially allocated to the nonspecified reserve, and not subsequently reallocated to a particular species.

² 2007 was an anomalous year, in which the Amendment 80 sector was precluded from yellowfin sole fishing by halibut PSC limitations, and the AFA sector was unable to harvest their full pollock allocations.

Source: NMFS

With the implementation of Amendment 80 in 2008, groundfish harvest and retention by the sector have increased (Table 5, Table 16). The program created the opportunity for cooperatives to manage hard caps for the six target groundfish species and four prohibited species designated under the program. At that time, the nonspecified reserve ceased to apply to Amendment 80-allocated groundfish target species. The reserve was no longer necessary, because the Amendment 80 Program established exclusive harvest privileges that would be carefully monitored. Thus, NMFS and the Council determined that contributions to a nonspecified reserve were no longer required to ensure harvests would be maintained within the TAC.¹⁴ Following the implementation of Amendment 80, the need for a management buffer was transferred from the agency to the Amendment 80 cooperatives; consequently, the Amendment 80 sector required increased TACs for hard capped species (Figure 3, Table 16) compared to their historical catch in order to ensure that unpredictable incidental catch constraints would not jeopardize overall harvest.

¹⁴ Amendment 80 Program Proposed Rule (72 FR 30061, May 30, 2007).

Table 16 Flathead sole, rock sole, and yellowfin sole TACs, and pollock and Pacific cod TACs, as a proportion of BSAI TAC, 2002 through 2012.

Year	Flathead sole, rock sole, yellowfin sole				Pollock and Pacific cod			
	Combined TACs	TACs as % of BSAI TAC	Catch	Catch as % of their TACs	Combined TACs	TACs as % of BSAI TAC	Catch	Catch as % of their TACs
2002	140,250	8%	132,427	94%	1,685,000	84%	1,677,171	100%
2003	125,588	7%	123,556	98%	1,699,260	85%	1,538,281	91%
2004	135,120	7%	141,582	105%	1,707,500	85%	1,692,704	99%
2005	140,310	7%	147,856	105%	1,684,500	84%	1,688,657	100%
2006	144,950	7%	153,596	106%	1,674,768	84%	1,680,667	100%
2007	204,425	10%	177,252	87%	1,564,720	78%	1,528,617	98%
2008	350,000	19%	224,709	64%	1,170,720	64%	1,161,445	99%
2009	360,000	22%	175,787	49%	991,540	59%	986,590	100%
2010	369,000	22%	191,973	52%	981,780	59%	982,243	100%
2011	322,548	16%	225,354	70%	1,479,950	74%	1,419,351	96%
2012	323,134	16%	234,667	73%	1,461,000	73%	1,456,496	100%

The OY limit for BSAI groundfish is constraining, especially in years when pollock, and to a lesser extent Pacific cod, biomasses are high. For example, in 2012, the sum of individual groundfish species' ABCs was 2.5 million mt, 25 percent more than the statutorily permitted maximum OY. When BSAI pollock and Pacific cod biomasses are high, there is increased scientific rationale for, and increased likelihood that public comments would suggest that, the Council maximize the allocation of TAC for these species as a portion of the OY limit. These conditions could result in increased pressure to limit the TACs for flathead sole, rock sole, and yellowfin sole to ensure the total BSAI groundfish TAC does not exceed the 2 million mt OY limit. Conversely, in years when BSAI pollock and Pacific cod biomasses are low, the allocation of TAC for BSAI pollock and Pacific cod during the annual harvest specification process is likely to be reduced as a portion of the maximum OY limit. As a result, the Council is more likely to increase the allocation of other groundfish species TACs, like flatfish, as a portion of the maximum OY.

In general, pollock and Pacific cod TACs are almost fully utilized (Table 16). In those years when biomass of pollock and Pacific cod are high, TACs for these species, in addition to all other groundfish species, are set below ABC as part of the necessary balancing to constrain TACs within the 2 million mt limit. If, at the same time, flatfish TACs are being set artificially high, as a necessary mechanism to address uncertainty about catch conditions in the coming year, and yet BSAI TAC remains unharvested due to inefficiencies in the flatfish fishery, this situation could prevent the OY of the BSAI groundfish fisheries from being consistently achieved, on average, over time.

Inherent to the Amendment 80 Program are tools that are intended to afford flexibility in cooperative management. These include the ability to transfer allocations among vessels within cooperatives, and, since 2011 (now that two cooperatives exist in the program), to transfer between cooperatives. At the sector level, all three of the flatfish targets remain underutilized (Table 6), although one cooperative has fully utilized its initial quota share of yellowfin sole since 2011, and rock sole was largely utilized in 2012. Anecdotal evidence from industry suggests that there is a learning curve to fishing under the cooperative structure, and so it is to be expected that the cooperatives will continue to use the available tools to improve their efficiency and utilization (as illustrated in Table 5). Indeed, in 2012, the number of transfers between cooperatives increased.

There are limitations, however, to the tools that are available within the program. There are many incidental catch constraints affecting the target flatfish fisheries. Often, if an incidental catch species is constraining, it is because it has a lower TAC or PSC amount, and therefore it is constraining for all participants. As indicated above, for many years before Amendment 80 was implemented, PSC limits for halibut were the major constraint on the harvest of flatfish in the Bering Sea. Since the implementation of

the Amendment 80 Program, and the end of the race for fish for vessels within a cooperative, vessels have improved their ability to avoid halibut. Even with the stepwise reduction in halibut PSC limits allowed to the sector, the cooperatives have remained within or below their PSC limits since the implementation of the program (Table 6).

Since 2008, however, a major constraint has been the sector's allocation of Pacific cod. In Amendment 85 to the FMP, the Council allocated the sector a proportion of the annual Pacific cod TAC that may have underrepresented recent usage patterns by Amendment 80 vessels. Consequently, the management of Pacific cod quota share to support target flatfish fisheries is an important issue for the Amendment 80 cooperatives. In 2012 and 2013, the Pacific cod TAC was higher than it had been in past years, and may have allowed for increased opportunities for participation in flatfish fisheries (Table 6) (e.g., the rock sole roe fishery). On the other hand, a higher biomass also means that more Pacific cod are likely to be encountered, using up the additional quota share.

To some extent, these incidental catch factors can be considered during fishery planning before the start of the year, and taken into account in the harvest specifications process. However, the catch composition rates of individual species in a multispecies fishery can be unpredictable from season to season, and from year to year (see discussion in Section 1.5.3). The seasonal timing of the various flatfish fisheries, and uncertainties concerning catch composition in later fisheries, may make it difficult to negotiate transfers until later in the year when vessels can better predict whether they will fish up to their allocations. As illustrated in Figure 5, however, later in the year, the harvest opportunities may have already been restricted. For example, vessels may choose to stop fishing in the valuable rock sole roe fishery in the early part of the year (winter), in order to preserve rock sole quota share to support prosecution of their yellowfin sole fishing in the late summer and into the fall. If rock sole incidental catch is lower than expected in the fall fisheries, there may no longer be the opportunity to target rock sole in order to fully utilize the remaining quota share. The economic loss may be amplified by the absence of roe-bearing rock sole in any harvest of that quota share that does take place.

Additionally, environmental conditions, such as the timing of sea ice retreat, can also create constraints that are difficult to predict pre-season. The location of flatfish aggregations on accessible fishing grounds, particularly those that have low halibut PSC, is affected by the timing of the Bering Sea ice retreat. It has proven difficult to predict, prior to the beginning of the fishing year, which target species is likely to be successfully harvested in areas of low incidental catch or PSC. Abiotic environmental conditions, such as shifts in the location of the cold pool¹⁵ on the Eastern Bering Sea shelf, can also affect the distribution of flatfish species and Pacific halibut. In recent years, conditions have not favored flathead sole aggregations in areas with lower incidental catch or PSC rates of constraining species, such as halibut, and it may be difficult to predict, pre-season, when fishing for that target species is likely to be economically feasible.

In summary, under the status quo, the implementation of the Amendment 80 Program has precipitated a situation where there is an incentive to set artificially high TACs for the species for which participants are hard capped, in order to account for an environment in which the sector is operating under multiple and unpredictable catch constraints.

¹⁵ The "cold pool" hypothesis (i.e., colder than ambient sea water affects distribution of walleye pollock and other groundfish) has been documented over the years 1966–1996. The primary sources for this hypothesis are the Institute of Marine Science, University of Alaska Fairbanks, AK; Pacific Marine Environmental Laboratory, Seattle, WA; Faculty of Fisheries, Hokkaido University, Japan; National Oceanographic Data Center; and National Marine Fisheries Service, Seattle, WA.

1.8.2 Alternatives 2 and Alternative 3 (Preferred Alternative as modified by Option 1)

Alternatives 2 and 3 propose an approach to increase harvest in the flathead sole, rock sole, and yellowfin sole target fisheries, by allowing Amendment 80 cooperatives and CDQ groups the ability to adjust their quota shares of these species inseason. Under the proposed approaches, each Amendment 80 entity or CDQ group would have access to an allotted portion of the ABC surplus (the difference between ABC and TAC) for each species, which could be exchanged by forgoing the existing TAC quota shares from one or two of the remaining flatfish species. Alternative 3 differs from Alternative 2 only in that the Council would have the ability to reduce the ABC surplus by some specified amount for socioeconomic, ecological, and/or biological considerations. The resulting ABC reserve or CDQ reserve would be available to eligible entities exactly as described in Alternative 2. As a result, the discussion of the impacts of these two alternatives is identical, except that Alternative 3 *potentially* provides reduced flexibility to the eligible entities in order to preserve the Council’s discretion to recommend lower harvestable amounts of flathead sole, rock sole, and yellowfin sole for socioeconomic and/or biological reasons.

1.8.2.1 Maximizing harvest

Alternatives 2 and 3 are intended to provide increased flexibility for the Amendment 80 cooperatives and the CDQ groups to harvest their flatfish allocations. Historically, the fleet has had difficulty fully utilizing the flatfish resource. Since the implementation of Amendment 80 in 2008, catch rates for these species have improved (Table 5). To the extent that additional constraints in targeting flatfish can be resolved through inseason flexibility in the choice of a flatfish target, the alternatives could be of benefit for maximizing flatfish TAC utilization. In addition, Alternatives 2 and 3 would give individuals within a cooperative greater flexibility to use allocations of each flatfish species when they have used the amount available to them under the cooperative agreement (and others have not). These instances will not be apparent in cooperative totals, since they reveal only catches aggregated for the cooperative.

The benefits of the increased flexibility approach arise only when the ABC for the species differs from its TAC. For flathead sole and rock sole, TACs have been below ABCs for many years, but in most years, the Council sets the yellowfin sole TAC close to the ABC. Table 17 provides an example of how catch potential could have been increased for each flatfish species under the proposed flexibility approach based on 2013 allocations. **Not all of the flatfish fisheries could have been maximized simultaneously.** The ABC surplus and ABC reserve approaches allow the Amendment 80 cooperatives and the CDQ groups to adjust their relative allocations of the three flatfish target species, within their individual constraints of their total quota allocation of the three species combined. It does not increase the overall amount of quota that is available to each entity for flathead sole, rock sole, and yellowfin sole combined. Increasing the quota of one of the three species *necessarily* reduces the available quota of one of the other of the three species.

Table 17 Increased catch potential under proposed approach, by sector, based on 2013 values (mt).

	Flathead sole		Rock sole		Yellowfin sole	
	Actual allocation in 2013	Additional catch potential through ABC reserve	Actual allocation in 2013	Additional catch potential through ABC reserve	Actual allocation in 2013	Additional catch potential through ABC reserve
Amendment 80						
Alaska Seafood Cooperative	20,506	32,482	48,691	78,122	81,776	4,112
Alaska Groundfish Cooperative	4,976	7,883	19,000	30,484	60,313	3,032
CDQ	3,652	4,837	9,309	13,013	21,614	856

As can be seen in Table 17, for example, under Alternative 2, the Alaska Seafood Cooperative would have had the opportunity to harvest approximately 4,000 mt additional yellowfin sole in 2013, or almost twice their current TACs of flathead sole or rockfish sole, if it had been willing to exchange an appropriate amount of a different flatfish species. It is not possible to predict exactly how fishing patterns will change as a result of this alternative. However, this additional access might have allowed vessels to continue fishing in the valuable early season rock sole fishery knowing that a buffer was available in case of unpredictable incidental catch situations, for example in the fall yellowfin sole fishery. As discussed under Alternative 1, the harvest specifications process and pre-season incidental catch planning may not be able to relieve constraints that arise midseason in response to changes in incidental catch conditions. The flexibility to exchange quota among target species allows the fleet to shift among targets when unexpected changes occur. For example, if an unexpected increase in incidental catch occurs, the fleet will have the opportunity to move to another target species with a lower incidental catch or PSC rate.

The ability to respond inseason may also benefit the fleet with respect to changing environmental and/or market conditions. For example, flathead sole is a more valuable flatfish species (Section 1.5.5), and if environmental conditions result in a situation where targeting flathead sole is successful, the fleet would be able to respond. Other market changes may also be assimilated midseason.

1.8.2.2 CDQ sector

The CDQ groups would have the same opportunity as the Amendment 80 cooperatives to access the ABC surplus and ABC reserve, and consequently would also be able to benefit from the flexibility in choice of target flatfish afforded by Alternatives 2 and 3 (Alternative 2 is illustrated in Table 17). Allocations of the ABC reserve to individual CDQ groups would be much smaller and, thus, may provide somewhat less flexibility (see Table 3). Also, the CDQ Program, as a whole, is not yet approaching full utilization of any of the three target flatfish species, so any benefits of this flexibility may not be apparent until the program comes closer to fully utilizing its existing allocations, as the groups could first utilize their ability to transfer quota share among themselves. Nonetheless, through cooperation among the groups and with leasing partners, even small amounts of ABC reserve may be beneficial to an individual group that is fully utilizing its allocation.

Although the CDQ Program shares many of the same constraints as the Amendment 80 Program, there are significant differences. The CDQ Program has a much wider species portfolio, involving many groundfish target fisheries, not just for Amendment 80 species. In some cases, this may prove more constraining, as there are more hard caps to manage across multiple target fisheries. The Pacific cod constraint, however, is not as acute for CDQ groups. While a CDQ group may have contracts with different operators for harvesting their target Pacific cod quota share and their rock sole, flathead sole, and yellowfin sole (including provision for incidental catch of Pacific cod), they still have some ability to buffer unanticipated overharvest in these flatfish fisheries within their larger Pacific cod allocation.

At the program level, the CDQ groups, as a whole, have had greater difficulty in fully utilizing their Amendment 80 target species since the implementation of Amendment 80, particularly in 2008 to 2010 (Table 6).¹⁶ This may be due to the Amendment 80 sector adapting to changing fishing patterns as a result of the new catch share program. Over the last five years, the Amendment 80 sector has become increasingly more efficient (Table 5), and this trend is likely to continue, for example as companies consider replacing vessels. It is impossible to quantitatively assess the impacts of the preferred alternative on the values of CDQ allocations of flathead sole, rock sole, and yellowfin sole available for lease by fishing partners. A qualitative assessment suggests that as the supply of these three species increases for

¹⁶ The experience of individual groups may vary, but those data are confidential.

the Amendment 80 sector as a result of this action, the demand for leasing CDQ flatfish quota would decrease, along with the lease rates. The possibility for this loss may exist in the short term only because demand for CDQ flatfish quota is likely to increase as more efficient vessels specifically designed for participation in the BSAI trawl fisheries replace the aging fleet, and Amendment 80 allocations are fully utilized. Anecdotal evidence suggests that leasing CDQ species is desirable,¹⁷ and as Amendment 80 vessels increase their efficiency, they will continue to seek other fishing opportunities, such as CDQ harvest. Also, in the past, the CDQ groups leased their flatfish quota share to Amendment 80 vessels to harvest; however, since 2011, other partners have also entered the market, which may lead to increased competition for CDQ leases.

The preferred alternative would not modify existing reporting requirements for the CDQ groups. The Council did not recommend a flatfish exchange report from CDQ groups given the small amount of the ABC reserve (10.7 percent) allocated to CDQ Program, and the limited impact that the use of flatfish exchanges by CDQ groups would likely have on other fishery participants. The potential impact of the use of the CDQ ABC reserve is limited by the fact that the CDQ ABC reserve is allocated among six CDQ groups, and no one CDQ group is likely to be able to substantially increase its harvests relative to the TAC for any species under this proposed action (see Table 3).

1.8.2.3 Impacts on other fishery sectors

One way in which other BSAI groundfish fishery participants may benefit from the increased flexibility proposed under Alternatives 2 and 3 is by facilitating the annual harvest specification process. As discussed under Alternative 1, the Amendment 80 sector participants, in managing their multiple hard caps, has to factor in considerable uncertainty in order to ensure that they can successfully prosecute their multispecies fisheries. If the sector has access to an additional tool, there may be more room to balance the TACs under the 2 million mt OY limit, especially in years where the pollock and/or Pacific cod biomasses are high. In years where pollock and cod biomasses are set below ABC to achieve the 2 million mt limit, the additional flexibility afforded to flatfish fishery participants could result both in increased flatfish, as well as increased pollock and cod, utilization.

It is possible that Alternatives 2 and 3 may change interactions of the BSAI trawl limited access sector and the CDQ Program during public testimony as part of the annual harvest specification process for establishing the yellowfin sole TAC. As illustrated in Figure 1, the yellowfin sole target fishery is allocated among the CDQ Program, the Amendment 80 sector, and the BSAI trawl limited access sector in prescribed ways. Both the CDQ groups and the Amendment 80 cooperatives would have the opportunity to increase their initial allocation of yellowfin sole by exchanging rock sole or flathead sole quota, under Alternatives 2 and 3, if there was an ABC surplus for yellowfin sole. The BSAI trawl limited access sector, however, would be limited by its allocation based on the initial TAC. This situation applies only to yellowfin sole as the other two species are exclusively allocated to the CDQ Program and the Amendment 80 sector.¹⁸ The tension may be more acute in years when AFA vessels are sideboarded for participation in the yellowfin sole directed fishery. This has not occurred since the implementation of Amendment 80, but the sideboard would again be instituted if the TAC for yellowfin sole was set below 125,000 mt.

¹⁷ Jason Anderson, Alaska Seafood Cooperative, personal communication, January 22, 2013; Everette Anderson, Aleutian Pribilof Islands Community Development Association, personal communication, January 22, 2013.

¹⁸ If there were an Amendment 80 limited access sector, similar drawbacks might also apply as that sector would also be limited to the initial quota allocations. At the current time, it is not considered likely that any Amendment 80 vessels will choose to leave the cooperative and fish in the limited access sector.

The interaction could work in either direction. Amendment 80 participants may have an incentive to lobby for a lower yellowfin sole TAC, knowing that the BSAI trawl limited access sector will be limited by their proportion of that lower TAC, while Amendment 80 cooperatives can exchange quota share to harvest additional yellowfin sole from the ABC reserve. At the same time, the BSAI trawl limited access sector may equally lobby for a maximum yellowfin sole TAC, knowing that if the Amendment 80 sector is limited in other flatfish species quota share to prosecute that fishery, they can convert yellowfin sole quota share accordingly. Note that yellowfin sole is a valuable species to the Amendment 80 sector, as illustrated in Figure 5, which would reduce sector participants' incentive to game the annual harvest specifications process through public testimony intended to encourage the Council to establish a lower TAC. Amendment 80 companies also have vessels participating in the BSAI trawl limited access sector, so they may have an interest in having that sector retain access to yellowfin sole. In order for gaming to be successful, the Amendment 80 sector would also need to advocate not only for a lower yellowfin sole TAC, but higher flathead sole or rock sole TACs, in order to have the requisite quota share to exchange. Finally, the Council makes final recommendations on TAC setting, and it is likely that any attempts at gaming by either sector would be apparent to the Council or brought out in public testimony. In reality, the Council has habitually set the yellowfin sole TAC close to or at the ABC in most years (Figure 3, Table 6). Additionally, to date, the BSAI limited trawl access sector has not fully used its yellowfin sole allocation, and in all Amendment 80 Program years prior to 2012, yellowfin sole TAC from the BSAI trawl limited access sector has been reallocated to the Amendment 80 sector (Section 1.7).

1.8.2.4 Impacts on crew or communities

Alternatives 2 and 3 may result in some increased fishing activity by Amendment 80 vessels as increased flexibility allows vessels to continue fishing longer or fish for more valuable targets. Potentially, if a vessel is harvesting a greater amount of fish and resulting product forms have increased value, some of that additional value could be received by crew if a vessel is operating under a revenue sharing agreement. Additionally, communities where owners reside could benefit from increased profitability of the fisheries. Of the 21 Amendment 80 vessels, 3 list their homeport in the Aleutians, 2 in Kodiak, 13 in Washington, and 3 in Maine (NPFMC 2012). To the extent that fishing operations are extended, this may provide some benefit to the fishing communities that represent the locations where vessels offload or take on supplies. Changes in benefits to the community could occur, but the magnitude of the change from this alternative is expected to be relatively small. Indirectly, some benefit could accrue to CDQ communities, if the additional flexibility results in increased profitability for CDQ groups and translates to funding to support economic development in western Alaska, or other CDQ Program goals.

1.8.2.5 Environmental impacts

To the extent that Alternatives 2 and 3 would allow the Amendment 80 sector to fully harvest their flatfish allocations, there may be an increase in incidental catch associated with an increase in effort. All groundfish species, however, are already managed under sustainable annual catch limits. Alternatives 2 and 3 would have no effect on stock assessments or on annual catch limit accounting. Slight changes in fishing patterns that affect groundfish target or incidental catch species would continue to be accounted for in future stock assessments.

The sector is also capped in its use of prohibited species as there are specific PSC limits for the sector's use of halibut and crab. While the flexibility afforded in these alternatives may result in some seasonal changes in fishing patterns, as fishermen react to changing incidental catch and environmental conditions, it is likely that the fleet will continue to be concerned about minimizing halibut PSC encounters and will use their increased flexibility to actively target fisheries with lower halibut encounters. Halibut has long been a constraint for these fisheries, and the cooperatives report annually to the Council on their efforts to avoid halibut PSC. In 2012, the red king crab PSC limit was reduced, and as the limit threatened to be

constraining, fishermen were successful in avoiding red king crab. The threat of exceeding PSC hard caps, and thus ending fishing opportunities, will continue to be a primary incentive for PSC avoidance in this fleet; the proposed alternatives provide additional flexibility to enable the fleet to manage themselves effectively within multiple hard caps.

The stock assessment for flathead sole notes that it may be possible in the near future to consider developing species-specific components for ABC and OFL for this complex. In the fishery, the term “flathead sole” generally refers to a complex of two species—flathead sole and Bering flounder—both *Hippoglossoides* species (Stockhausen et al. 2012). The two species are very similar morphologically but differ in characteristics and spatial distribution. Bering flounder typically represents less than 3 percent of the combined biomass of the two species in annual groundfish surveys. Unless other provision is made, it is assumed that the flexibility afforded under Alternatives 2 and 3 would continue to apply to both species managed as a complex as long as they continue to be managed under a single TAC.

1.8.2.6 Management impacts

The approaches proposed in Alternatives 2 and 3 would add a level of complexity both to NMFS management and the annual harvest specifications process. Initially, there would be changes required to the catch accounting system as additional accounts would need to be developed to track ABC reserves and to allow exchanges. As the category functions similarly to existing transfers, however, such changes should be feasible. On an annual basis, the Council and NMFS would likely need to acknowledge, as part of the harvest specifications process, that the individual TAC that is set for each of the three flatfish species could increase, although the aggregate TACs for the three species and the overall constraint of the 2 million mt OY limit would still be maintained. Additionally, some effort may be required on the part of NMFS to monitor and track the changes to individual species TACs that may result from exchanges with the ABC reserves.

The agency has noted that allowing the total of individual allocations to equal ABC will reduce the available buffer against accidentally exceeding ABC. There is a risk that the ABC for any species could be exceeded if there is a miscalculation due to management uncertainty. For example, errors could occur if incidental catch of the allocated flatfish species in other fisheries (e.g., catch of yellowfin sole by AFA vessels in the BSAI pollock fishery) was much higher than anticipated. As designed, this action cannot, in and of itself, result in an ABC being exceeded. Entities with exclusive catch and use privileges (e.g., cooperatives and CDQ groups) are prohibited by regulation from exceeding their allocations, so additional uncertainty would be limited to exceeding the apportionments for the incidental catch allowance, the BSAI trawl limited access sector, or an Amendment 80 limited access sector, if it existed. If necessary, under this approach, the agency may set a more conservative ICA for these species.

Although individual TACs (not ABCs) may be exceeded, all of the flatfish TACs could not be exceeded in a given year. This action prevents the sum of all TACs for flathead sole, rock sole, and yellowfin sole from being exceeded, thereby ensuring the OY 2 million mt limit is not exceeded. Moreover, this action would ensure that the ABC for each flatfish species would not be exceeded because no exchange can exceed the ABC reserve and because the action requires the consideration of flathead sole, rock sole, and yellowfin sole catch during the harvest of groundfish and incidental catch of non-groundfish species prior to any flatfish exchange. This action is designed to provide the tools necessary to maximize the sustainable harvest of flathead sole, rock sole, and yellowfin sole and thus continues to achieve the OY in the BSAI groundfish fisheries on average, over time.

No enforcement or safety issues have been identified as a result of implementing Alternatives 2 and 3.

1.8.3 Option 1 (part of the Preferred Alternative)

The Council and NMFS noted the potential for exchanges to increase the administrative burden on NMFS inseason management and suggested that a limit on the number of exchanges per year would reduce the potential administrative burden of Alternatives 2 and 3 for NMFS. As a result of public comment and discussions, the Council determined that a maximum of three exchanges, per entity, would reduce the administrative burden while meeting the goals and objectives for this action. A limit of three exchanges per entity would establish an annual maximum of six total exchanges for the Amendment 80 sector (given the existence of two cooperatives), and potentially an additional eighteen for the CDQ groups. Inseason adjustments are already used frequently by the agency to reallocate Pacific cod among sectors, for example, or to allocate TAC in the non-specified reserve to a particular target species.

Even if an inseason adjustment and *Federal Register* notice is not required for each exchange, there may be a benefit of having a maximum limit on the number of exchanges that an entity may make. Limiting the number of exchanges may reduce the possibility of confusion from fluctuating TAC amounts throughout the year.

While limiting the number of exchanges does reduce the flexibility available to the Amendment 80 and CDQ sectors, a limit of three exchanges should provide sufficient opportunity for the sectors, consistent with the purpose of this action. Three exchanges would allow the sectors to make exchanges in the late spring and fall months, once fishing conditions and incidental catch composition in the spring and fall yellowfin sole fisheries become apparent, while still leaving an exchange in reserve to be used if conditions change unexpectedly.

The new reporting requirement is not likely to increase the burden on the Amendment 80 cooperatives. The Council received testimony from participants in the cooperatives that these data are currently collected and could easily be entered into the draft report. The Council considered the possibility of increased burden hour estimates when it recommended that the data requesting should reflect only fishing effort and exchanges through October 31 of the fishing year to accommodate the December 1 reporting deadline. NMFS estimates that the public reporting burden will average 30 minutes for the flatfish exchange application and 25 hours for preliminary (i.e., draft) Amendment 80 cooperative flatfish exchange report. The estimated response times include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This reporting requirement would not modify existing regulations that require each Amendment 80 cooperative to submit an Annual Amendment 80 cooperative report (see regulations at § 679.5(s)(6)).

1.8.4 Options 2 and 3

It is speculative whether there is likely to be an adverse impact on the BSAI trawl limited access sector as a result of adoption of either Alternative 2 or Alternative 3 (see discussion above). The sector would not be directly affected by the alternatives, but the implementation of either alternative could change the character of industry testimony to the Council during the annual harvest specification process, and it is unclear which sector would ultimately benefit during TAC setting for yellowfin sole. The Council has consistently set yellowfin sole TAC close to or at ABC, so any effect is likely to be small. Additionally, in four of the five years of the program, yellowfin sole TAC has been reallocated from the BSAI trawl limited access sector to the Amendment 80 sector (Section 1.7).

Nonetheless, the Council has identified two possible options that could mitigate any adverse effect on the BSAI trawl limited access sector. Under Option 2, the ABC surplus would only be established for flathead sole and rock sole, however, entities could exchange (reduce) their yellowfin sole quota share to

increase rock sole or flathead sole TAC. This would eliminate any possible adverse effect on the BSAI trawl limited access sector, as there would be no incentive for the Amendment 80 sector to advocate for a lower yellowfin sole TAC than what they require. The removal of yellowfin sole from a full exchange capability, however, would add an additional constraint on the Amendment 80 sector compared to Alternatives 2 and 3 without Option 2 and reduce the flexibility afforded by Alternatives 2 and 3. Yellowfin sole is the most versatile Amendment 80 flatfish fishery, at present, and the ability to exchange excess quota share of other flatfish species for yellowfin sole TAC, particularly towards the end of the year when yellowfin sole is the primary flatfish target, could be an important element of the flexibility envisioned in Alternatives 2 and 3.

Under Option 3, the Council would limit the amount of additional yellowfin sole that could be accessed through ABC surplus exchange by entity. Each entity could access no more than an amount to be specified, within the range of 5,000 mt to 25,000 mt. Table 18 illustrates what the potential ABC surplus might have been, by entity, if Alternative 2 (or Alternative 3 without the Council’s discretionary buffer) had been in effect in 2008 through 2013. For the 6 years of the program, based on the difference between the ABC and the TAC set by the Council in those years, the CDQ groups’ combined allocation of ABC surplus has been less than 5,000 mt; therefore, the groups would never have been limited by the range included in Option 3. The Amendment 80 cooperatives would have been limited by the low end of the range in 3 of the 6 years and would never have been limited by the upper end of the range. If the low end of the range were adopted, the maximum of 10,000 mt of yellowfin sole could have been available for flatfish exchanges in the Amendment 80 sector, by ABC reserve exchange, in any one year. To the extent that the limit set in Option 3 is constraining for Amendment 80 cooperatives, it reduces the flexibility afforded by Alternatives 2 and 3 but still provides more flexibility than Option 2.

If the TAC had been set at the maximum ABC in all 6 years of the program, the BSAI trawl limited access sector would have received an additional 17,200 mt of yellowfin sole in 2011, and 3,200 mt or 9,200 mt in 2013 and 2008, respectively (Table 18). As identified above, however, the BSAI trawl limited access sector has not caught its yellowfin sole allocation in most of the years of the program.

Table 18 Retrospective application of the ABC surplus for yellowfin sole, and its apportionments to entities, in 2008 through 2013; additional yellowfin sole TAC that would have been apportioned to BSAI trawl limited access sector (BSTLA) if TAC had equaled ABC in those years.

Year	Potential yellowfin sole ABC surplus	CDQ ABC surplus	Alaska Seafood Cooperative ABC surplus	Alaska Groundfish Cooperative ABC surplus	Additional BSTLA yellowfin sole if TAC=ABC
2008	23,000	2,461	11,821	8,718	9,200
2009	0	-	-	-	-
2010	0	-	-	-	-
2011	43,000	4,601	22,100	16,299	17,200
2012	1,000	107	514	379	400
2013	8,000	856	4,112	3,032	3,200

1.8.5 Potential Net Benefits to the Nation

Overall, this action is likely to have a modest positive effect on net benefits realized by the Nation. Alternatives 2 and 3 provide a clear regulatory framework for adjusting constraints that may affect flatfish harvest opportunities. To the extent that the additional flexibility afforded under Alternatives 2 and 3 allows harvesters to maximize harvest, there may be some consumer benefits realized from the proposed action, although any consumer surplus accruing to foreign consumers (i.e., outside the United States’ jurisdiction) will not contribute to improvements in net National benefits. As reported elsewhere, a substantial portion of output from this fishery is exported for re-processing and consumption.

2 Magnuson-Stevens Act Considerations

This section evaluates this action against the National Standards and Fishery Impact Statement requirements in the Magnuson-Stevens Act.

2.1 National Standards

Below are the ten National Standards as contained in the Magnuson-Stevens Act, and a brief discussion of the consistency of the 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.

The alternatives considered in this action would not affect the sustainability of groundfish in the BSAI, since the target species will continue to be managed within their acceptable biological catches (ABC). Moreover, Alternatives 2 and 3, provide the tools necessary to maximize the sustainable harvest of flatfish species and, thus, increase the likelihood of achieving and maintaining, on a continuing basis, the optimum yield in the BSAI groundfish fisheries.

National Standard 2: Conservation and management measures shall be based upon the best scientific information available.

This analysis is based on the most current, comprehensive data available, recognizing that some information (such as operating costs) is unavailable.

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.

This action makes no change to how groundfish stocks are assessed or managed in the BSAI.

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.

Nothing in the alternatives considers residency as a criterion for the Council's decision; therefore, the proposed alternatives treat all fishermen the same regardless of residency. The proposed alternatives would be implemented without discrimination among participants. No fishing privileges are allocated under this action, and this action will not result in excessive shares.

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.

Alternatives 2 and 3 have the potential to increase efficiency in the utilization of fishery resource by providing flexibility to maximize harvest of flatfish species.

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 is expected to affect the availability of, and variability in, the groundfish resources in the BSAI in future years. All harvest will continue to be managed under, and limited by, the ABCs for each species.

National Standard 7: Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

This action imposes no additional costs on industry, and minimal costs on management 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, as discussed in Section 1.8.2. None of the action alternatives would extinguish harvest opportunities for vessels with a high degree of economic dependence upon the flatfish fisheries. The Amendment 80 fleet does not have a large impact on coastal communities and, if anything, the increased flexibility should prolong fishing opportunities rather than curtail them. For the CDQ sector, any increase in flatfish harvest that increases profitability would support economic development in western Alaska by the nature of the program.

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.

Measures to help minimize bycatch are built into the Amendment 80 Program by Council design, for example through reductions in PSC allocations. Alternatives 2 and 3 may provide increased fishing opportunities to maximize harvest of flatfish species, which may have attendant bycatch, as well as PSC implications; however, these alternatives would not alter existing measures currently in place to minimize these removals.

National Standard 10: Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

None of the alternatives adversely affect the safety of human life at sea.

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

Section 303(a)(9) of the Magnuson-Stevens Act requires that a fishery impact statement be prepared for each FMP amendment. A fishery impact statement is required to assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, and possible mitigation measures, on (1) participants in the fisheries and fishing communities affected by the plan amendment; (2) participants in the fisheries conducted in adjacent areas under the authority of another Council; and (3) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery.

The RIR prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout the RIR. The effects on participants in the fisheries and fishing communities, and safety of human life at sea are analyzed in Section 1.8.

The proposed action affects the BSAI groundfish fisheries in the exclusive economic zone off Alaska, which are under the jurisdiction of the North Pacific Fishery Management Council. Impacts on participants in fisheries conducted in the GOA under the Council's jurisdiction are addressed in the analysis. Impacts on participants in fisheries conducted in adjacent areas under the jurisdiction of other regional fishery management councils are not anticipated as a result of this action.

3 Initial Regulatory Flexibility Analysis

3.1 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 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 proposed action would modify the fisheries management regulations establishing the harvest specification process for non-AFA trawl C/Ps participating in the Amendment 80 Program and for the Western Alaska Community Development Quota (CDQ) Program. The proposed action would enable Amendment 80 cooperatives and CDQ groups to exchange their quota share of one of the three species (flathead sole, rock sole, and/or yellowfin sole) for an equivalent amount of the acceptable biological catch surplus for another of these flatfish species. The approach is intended to increase the opportunity for maximizing the harvest of these species, while ensuring that the overall optimum yield (OY) and the ABCs for each individual species are not exceeded.

The RFA 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 to (1) increase agency awareness and understanding of the impact of their regulations on small businesses, (2) require that agencies communicate and explain their findings to the public, and (3) encourage agencies to use flexibility and to provide regulatory relief to small entities. The RFA emphasizes predicting impacts on small entities as a group distinct from other entities and on the consideration of alternatives that may minimize the impacts while still achieving the stated objective of the action.

On March 29, 1996, President Clinton signed the Small Business Regulatory Enforcement Fairness Act. Among other things, the new law amended the RFA to allow judicial review of an agency's compliance with the RFA. The 1996 amendments also updated the requirements for a final regulatory flexibility analysis, including a description of the steps an agency has taken to minimize significant economic impacts on small entities. Finally, the 1996 amendments expanded the authority of the Chief Counsel for Advocacy of the Small Business Administration (SBA) to file *amicus* briefs in court proceedings involving an agency's alleged violation of the RFA.

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. NMFS interprets the intent of the RFA to address negative economic impacts, not beneficial impacts, and thus such a focus exists in analyses that are designed to address RFA compliance.

Data on costs and operations in the CDQ fishing sector directly regulated by the proposed action, as well as each individual non-CDQ entity that may be directly regulated, are insufficient at present to permit preparation of a "factual basis" upon which to certify that the proposed action does not have the potential to result in "significant adverse economic impacts on a substantial number of small entities" (as those terms are defined under RFA). Because, based on all available information, it is not possible to "certify" this outcome, a formal IRFA has been prepared and is included in this package for Secretarial review.

3.1.1 What is required in an IRFA?

Under sections 603(b) and (c) 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;
- A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which 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;
- Descriptions of any significant alternatives to the proposed rule which accomplish the stated objectives of the applicable statutes, and which 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 the following:
 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.

3.1.2 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 (SBA). “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 July 22, 2013, a business involved in finfish 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 \$ 19.0 million for all its affiliated operations worldwide.¹⁹ A seafood processor is a small business if it is

¹⁹ SBA updated the Gross Annual Receipts thresholds for determining "small entity" status under the RFA to \$ 19 million, as pertaining to "commercial finfish fishing" operations. The revised SBA threshold for other commercial fishing, in particular, "shellfish fishing" was revised to \$ 5.0 million, much lower than the finfish fishing threshold. However, as significant numbers of crab fishing entities also fish for finfish (and vice versa) off Alaska, NMFS is working with SBA to clarify how these

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 finfish into seafood products is a small business if it meets the \$ 19.0 million criterion for finfish 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 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 an independently owned and operated 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.

potentially conflicting criteria may be appropriately applied to future actions. While a final determination is anticipated, at present, NMFS is proceeding with the \$19 million annual gross receipts from all sources of economic activity, including affiliates, worldwide, as the threshold for determining “small commercial finfish fishing” entities under this action.

3.2 Reason for Considering the Proposed Action

The reasons for considering the proposed action are discussed earlier in this analysis and are only summarized here. The purpose and need statement for the action is included below:

Typically, the Amendment 80 sector is unable to fully harvest the TACs for flathead sole, rock sole, and yellowfin sole due to market limitations and limitations associated with allocations of certain species harvested incidentally in the directed flatfish fisheries. In an effort to create additional harvest opportunities for the above species, a new harvest and accounting methodology is needed that would provide the Amendment 80 sector and CDQ groups increased flexibility in using yellowfin sole, rock sole, or flathead sole allocations. A new harvest and accounting methodology would enable Amendment 80 cooperatives and CDQ groups to maximize their harvest of these three species under various regulatory, economic, and environmental constraints while also ensuring that the ABC for each individual species is not exceeded in order to avoid any biological or conservation concerns.

3.3 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 (NMFS Alaska Regional Office) and 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 Bering Sea and Aleutian Islands (BSAI) groundfish fisheries are managed under the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. The proposed action represents amendments to the fishery management plan, as well as amendments to associated Federal regulations.

The principal objective of this action is to establish management measures that provide the tools necessary to maximize the sustainable harvest of flatfish species and thus increases the likelihood of achieving and maintaining, on a continuing basis, the OY in the BSAI groundfish fisheries, consistent with National Standard 1 of the Magnuson-Stevens Act.

There are several options under the action alternatives. This analysis explores alternatives to increase flexibility in the use of three target flatfish species, within the confines of existing conservation thresholds. Flatfish TACs are consistently under-harvested due to various economic, regulatory, and environmental constraints. Under the Magnuson-Stevens Act and the Council's FMP, there is a need to promote conservation while providing for OY for the BSAI groundfish fishery. The purpose of this action is to identify a flexible approach that creates additional harvest opportunities to maximize total allowable catches, but still (1) maintain catch below acceptable biological catch limits and (2) ensure that the 2 million mt maximum limit of the BSAI groundfish OY range will not be exceeded.

The alternatives and options under this amendment package are treated at length in Section 1.4 of this integrated RIR/IRFA document.

3.4 Number and Description of Directly Regulated Small Entities

CDQ groups and Amendment 80 cooperatives are directly regulated through this proposed action through their allocations of harvesting privileges for flathead sole, rock sole, and yellowfin sole.

All the vessels and companies participating in the Amendment 80 sector have been affiliated with one of two Amendment 80 cooperatives, the Alaska Seafood Cooperative or the Alaska Groundfish Cooperative, since 2011. The most recent gross revenue data for Amendment 80 cooperatives is from 2011 and this data indicate that the total gross revenues earned by the vessels in each of the Amendment 80 cooperatives exceed \$ 19.0 million. Thus, the vessels and companies participating in Amendment 80 cooperatives are all large entities, either by virtue of their own gross revenues or by virtue of their affiliation with other large entities through their cooperative membership. Therefore, this analysis addresses the impact on the directly regulated small entities (i.e., CDQ groups) and not Amendment 80 cooperatives.

The six CDQ groups are all small entities by virtue of their non-profit status. These groups include Aleutian Pribilof Island Community Development Association, Bristol Bay Economic Development Corporation, Central Bering Sea Fishermen's Association, Coastal Villages Region Fund, Norton Sound Economic Development Corporation, and Yukon Delta Fisheries Development Association. Each of these groups is organized as an independently owned and operated not-for-profit entity and none is dominant in its field; consequently, each is a "small entity" under the RFA.

All six CDQ groups annually are allocated groundfish, halibut, and crab CDQ allocations. These groups participate, either directly or indirectly, in the commercial harvest of these allocations. Commercially valuable allocations include (among others) Alaska pollock, Pacific cod, sablefish, Pacific halibut, Greenland turbot, Atka mackerel, various flatfish species, as well as king and Tanner crab. CDQ groups receive royalties from the successful harvest of CDQ by commercial fishing companies, as well as access to employment and training opportunities for their communities' residents. Royalties and income from CDQ harvesting activities are used to fund economic development projects in CDQ communities. In 2011 the six CDQ groups earned approximately \$ 311.5 million in royalties (i.e., gross revenues) from the harvest of CDQ allocations. CDQ Program activities are discussed in detail in Section 1.6 of the RIR.

3.5 Recordkeeping and Reporting Requirements

This action is projected to have a *de minimis* impact on the recordkeeping and reporting requirements of CDQ groups participating in the BSAI groundfish fisheries. The regulations proposed under this amendment directly impact the recordkeeping and reporting requirements of Amendment 80 cooperatives, but not those of the CDQ groups. Under this action, NMFS would not require the directly regulated small entities (i.e., CDQ groups) to annually report data on Flatfish Exchanges. Moreover, the decision to submit a Flatfish Exchange Application is entirely voluntary on the part of all affected entities. If a CDQ group chooses to submit a Flatfish Exchange Application, it will need to submit the information required. The information required in a Flatfish Exchange Application is similar to the information already required by for transfers of CDQ allocations among CDQ groups (see regulations at § 679.5(n)). Some recordkeeping and reporting requirements would be required by Amendment 80 cooperatives, which are considered large entities and is not addressed further here.

3.6 Federal Rules that may Duplicate, Overlap, or Conflict with Proposed Action

No duplication, overlap, or conflict between this proposed action and existing Federal rules has been identified.

3.7 Description of significant alternatives

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 three alternatives and associated options. A detailed description of these alternatives and options is provided in Section 1.4 of the RIR.

Alternative 1 is the status quo, and does not provide additional harvesting flexibility for flathead sole, rock sole, or yellowfin sole to CDQ groups. Alternative 2 would establish a CDQ ABC Surplus for flathead sole, rock sole, or yellowfin sole that is allocated among CDQ groups equal to 10.7 percent of the ABC surplus for each species, while Alternative 3 would allow the Council or NMFS to establish a CDQ ABC reserve for flathead sole, rock sole, or yellowfin sole that is allocated among CDQ groups that may be less than or equal to 10.7 percent of the ABC surplus for each species after considering socioeconomic or biological considerations. Alternative 2 is less restrictive than the preferred Alternative, and thus has fewer adverse impacts on the directly regulated CDQ groups. While Alternative 2 may be less restrictive to CDQ groups, Alternative 3 was adopted because it provides the Council flexibility to address socioeconomic or biological considerations during the annual harvest specifications process. The Council and NMFS may deem it appropriate to set the ABC reserve below the ABC surplus to accommodate potential harvests of non-target species greater than the incidental catch allowance. Similarly, the Council may recommend establishing an ABC reserve less than the ABC surplus to accommodate market conditions.

The Council also considered three options that could be applicable to either Alternative 2 or Alternative 3; however, Options 2 and 3 are mutually exclusive. Option 1 would establish an ABC surplus, ABC reserve, and CDQ ABC reserve for flathead sole, rock sole, and yellowfin sole but limit the number of Flatfish Exchanges to no more than three Flatfish Exchanges per CDQ group per calendar year. Option 2 allows the creation of an ABC surplus, ABC reserve, and CDQ ABC reserve only for flathead sole and rock sole, while Option 3 limits the maximum amount of the ABC surplus, ABC reserve, and CDQ ABC reserve for yellowfin sole available to CDQ groups. Options 2 and 3 are more restrictive than Option 1 and provide fewer opportunities for CDQ groups to use Flatfish Exchanges to maximize their harvests, particularly their harvests of yellowfin sole; therefore, Options 2 or 3 would have more adverse impacts on CDQ groups than the preferred alternative, which combines Alternative 3 and Option 1.

Option 1, which limits CDQ groups to three Flatfish Exchanges during a year, is more restrictive than the adoption of Alternative 3 without the option. Alternative 3 without Option 1 would not limit the number of Flatfish Exchanges that a CDQ group could undertake each calendar year. However, Option 1 was meant to limit the potential administrative burden and costs on NMFS of the proposed action. As explained in Section 1.8.3 of the RIR, the Council determined and NMFS agreed that a maximum of three Flatfish Exchanges per calendar year per CDQ group would meet the goals and objectives for the proposed action, would not unduly constrain CDQ groups, and would reduce administrative burden and costs on NMFS. The Flatfish Exchange limits are intended to allow the CDQ groups to make an adequate number of exchanges needed to accommodate uncertain harvesting conditions throughout the year as described earlier in Section 1.6.1 of the RIR.

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