Testimony of
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Good morning Madam Chair and members of the committee. I am Mark Fina, Senior Economist for the North Pacific Fishery Management Council. I appreciate having the opportunity to offer comments to the Subcommittee on our experiences with catch shares in the North Pacific. Our Council will be finalizing its comments on NOAA Fisheries catch share policy at its April meeting. A primary focus of those comments will be ensuring that the guidance in no way impinges on Council authorities provided by the Magnuson Stevens Act for introducing and designing catch share programs for the fisheries it manages. As you will note throughout my comments, the Council's use of that authority, and the flexibility it provides, has been critical to determining when catch share management is appropriate for a fishery and the development of programs that equitably balance the interests of stakeholders. I would be happy to share those comments with you when they are completed.

The North Pacific Council manages groundfish and shellfish fisheries in the Bering Sea, Aleutian Islands, and Gulf of Alaska in federal waters off Alaska. Major groundfish fisheries include pollock, Pacific cod, rockfish, flatfish, sablefish, and Atka mackerel. In addition, allocations in the halibut fishery are determined by the Council, in concert with the International Halibut Commission, which manages the biological aspects of the fishery. The North Pacific Council also jointly manages crab and scallop fisheries with the Alaska Department of Fish and Game.

All federal fisheries off Alaska are managed under annual catch limits and some type of limited access program. Over time, the Council has adopted a variety of management measures to address specific, relevant issues that have arisen in particular fisheries. These measures address a range of concerns from social and economic issues, such as those addressed by the Community Development Quota program, to environmental issues, such as area closures to protect habitat. As a part of the evolution of our management, we have adopted "individual fishing quotas" (IFQs), "community quotas," "fishery cooperatives," and "rationalization" programs – all of which allocate portions of the total allowable catch to fishery participants – in several of our fisheries. These programs (which now might be characterized as "catch shares" or "limited access privilege" programs) were adopted for a variety of reasons; each tailored to the specific needs and circumstances of the fishery, its participants, and stakeholders. Each program was developed through years of Council deliberation, supported by hundreds of pages of analysis. Stakeholders and the public had several opportunities for input throughout the Council's development of these programs, often resulting in the inclusion and revision of important elements. This open, deliberative process is critical to both stakeholder acceptance of a program and achieving an appropriate balance among often divergent interests.

The gravity of the radical change in management to catch shares for some stakeholders should not be underestimated. As with all management programs, catch shares programs, particularly at the initial allocation, define "winners" and "losers". While the Council's public process is intended to ensure that a program achieves its goals with minimal negative consequences, decision makers should be prepared to critically review the effects of these programs and adopt modifications as needed. In some cases, subsequent actions intended to mitigate negative effects may carry equally undesirable consequences. For

instance, redistributing shares after the initial allocation to rectify inequities in that initial allocation may be considered unfair by some participants, particularly if shares are taken from persons who used loans to fund their purchases based on an expected stream of income that would be derived from those shares. These practical barriers to reversing catch share programs to remedy hardships suggest that catch share programs be approached with caution.

When considering a catch share program, the stakeholder, administrative, management, and monitoring burdens should not be overlooked. Stakeholders' and managers' time is greatly taxed by the extensive stakeholder and public input, alternative analysis and review, and Council deliberations associated with development a catch share program. In our experience, the time for rulemaking and implementation of catch share programs after Council action has in some cases exceeded 2 years. Care is taken to ensure that these Council and staff time commitments do not constrain our ability to address other pressing management needs. Additional monitoring and observer coverage may also be necessary to oversee catches and landings of exclusive allocations, particularly in multispecies fisheries where catch shares may allow a vessel to improve returns by discarding less valuable catch. Enforcement burdens may also rise, as each permit represents a privilege to harvest a certain quantity of fish, rather than the general privilege to participate represented by a limited entry license. These added costs and burdens are an important consideration for both fishery managers and stakeholders, when considering whether to advance a catch share management program in a fishery. Despite these caveats, the North Pacific Council believes that, when appropriate for a fishery and carefully designed, catch shares are a very effective management measure.

I would like to spend the remainder of my time briefly reviewing some aspects of the different catch share programs that we have adopted in the North Pacific. I will touch on the Council's rationale for each program, design characteristics reflecting the rationale, performance of the program, some unanticipated consequences, and the Council's responses to mitigate those consequences. I will conclude with a brief summary of some considerations that I believe are critical to the development of effective catch share programs.

Halibut and sablefish Individual Fishing Quota (IFQ) program

The halibut and sablefish fisheries support a large number of small vessels with strong community ties. In 1995, NOAA Fisheries implemented the halibut and sablefish IFQ program approved by the Council in 1992. These two fisheries are similar in many respects. Both species are targeted with fixed gear, primarily longlines, and command a relatively high ex-vessel price. Prior to implementation of the IFQ programs, the fisheries were open access, regulated by managers monitoring catch in-season with closures timed to coincide with harvest of the total allowable catch. The catching power of this fleet posed several management challenges. To limit total catch to the level needed to protect stocks, managers progressively shortened fishing seasons, creating a derby as fishermen raced to obtain a share of the fishery. At the extreme, in some regulatory areas, halibut seasons were reduced to 24-hour derby openings. Managers had difficulty regulating harvests, as harvest levels could not be accurately gauged for these very short openings. Gear losses were believed to be excessive, resulting in an estimated 2 million pounds of halibut mortality annually, as unretrieved gear continued to catch fish. Safety was compromised, as owners of smaller vessels felt compelled to fish, regardless of the weather, to maintain their participation. Catch quality suffered as some vessels queued at processing plants for up to a week waiting to offload. The IFQ program – the result of years of Council deliberations – was largely intended to control expansive growth in participation in the fisheries and the end the derby.

The IFQ program is designed to balance a number of goals and interests. To reflect historic participation and fishery dependence, initial allocations of shares were based on catches from the fishery over three years. Over 4,800 persons received initial allocations in the halibut fishery that drew approximately 3,500

participating vessels annually in the years leading up to implementation of the IFQ program. To maintain fleet composition, shares are classified for use by vessel type (catcher processor or catcher vessel) and length, with limits on the use of shares outside of their designated vessel type and size class. Most shares are divisible and transferable subject to consolidation limits. To maintain the small vessel, owner-operator character of the fleet, catcher vessel shares carry owner-on-board requirements, limits on the use of hired skippers, leasing prohibitions, and may be transferred only to individuals (not corporations or partnerships). In addition, only persons able to demonstrate active time as crew in commercial fisheries are permitted to acquire shares. To provide entry opportunities, consolidation of small blocks (or allocations) of quota is limited and loans are available to aid newcomers and small vessel operators. Seasons extend several months allowing share holders to time their harvests to avoid poor weather and sell to desired markets.

Since implementation of the program, several changes have been observed in the fisheries. The number of share holders and number of vessels in both the halibut and sablefish fisheries have declined substantially. A new type of cooperation has developed as share holders consolidate their holdings and fish them off fewer vessels to reduce costs. This tendency is borne out, as the number of active share holders substantially exceeds the number of vessels. This practice is significant, as it demonstrates that the program provides an alternative, more gradual, means of entry, when compared to purchasing a license and vessel to enter a limited entry fishery. In the halibut fishery, in particular, product quality has improved dramatically with a substantially larger share of the catch being sold to fresh fish markets. Gear losses and associated mortality are believed to be inconsequential under IFQ management. In addition, safety improvements in the fishery have been documented through declining fatalities and U.S. Coast Guard search-and-rescue missions.

Despite these benefits, not all stakeholders are satisfied with the outcome of the IFQ program. In many cases, the Council has taken action to address these concerns. The first amendments to the program, intended to improve entry opportunities, were implemented simultaneously with the IFQ program itself. In addition, many quota holders in Alaska's smaller coastal communities have chosen to transfer their quota to others or have moved out of these communities. As a result, the number of residents of small communities holding quota and the total amount of quota that they hold have substantially declined since the implementation of the IFQ program. In response, ten years after the original implementation, the Council revised the IFQ program to authorize certain remote coastal communities with few economic alternatives to purchase and hold shares to ensure their access to, and sustained participation in, the IFQ fisheries. The Council is currently conducting a five-year review of this community purchase program, giving particular attention to program elements and market factors that might contribute to a dearth of community purchases to date. While some may suggest that a redistribution of shares to communities might address this issue, such a redistribution might be view as inequitable by persons who purchased shares, on the expectation of receiving returns from those purchases for several years.

Bering Sea pollock cooperatives (under the American Fisheries Act)

The Bering Sea pollock fishery is a high volume industrial fishery, with large scale shore-based and at sea processing sectors. In 1998, Congress adopted a cooperative management program for the Bering Sea pollock fisheries. This Congressional action followed a prolonged, contentious allocation debate between the inshore sector (who deliver their harvests to shore-based plants for processing) and the offshore sectors (who process their catch at sea). The program divides the total allowable catch among the sectors, with 50 percent allocated to the inshore sector, 40 percent to the catcher processor sector (including the catcher vessels that deliver to catcher processors), and 10 percent to the mothership sector (floating processors that receive deliveries from catcher vessels at sea), after set asides to the Community Development Quota program and to support catches in other fisheries.

Although an allocation dispute was the catalyst for the development of the program, the cooperative structure is intended to address a variety of interests and issues. Allocations are made to vessels based on historic catches. Eligible vessel may then join a cooperative to access exclusive annual allocations. Management burdens are reduced as NOAA Fisheries monitors catch at the cooperative level, with all members of a cooperative jointly and severally liable for violations of their cooperative. Under the system, cooperatives distribute allocations among member vessels and oversee individual vessel harvests with contractually defined and privately administered penalties for violations of the cooperative agreement. In part due to processor-voiced concerns about the redistribution of landings under the halibut and sablefish IFQ program, the catcher vessel program creates a closed class of shore-based processors. To access an exclusive allocation, a catcher vessel must join a cooperative in association with one of the shore-based processors. Vessels that elect not to enter such a cooperative may fish a limited access fishery, without the benefit of an exclusive allocation. The program also recognizes potential spillover effects on other fisheries that could arise if vessels consolidate harvests or time of harvests to allow for greater participation in other fisheries. To prevent encroachment of pollock vessels and processors in these other fisheries, "sideboards" limit pollock fishery participant catches and processing in these other fisheries.

In the catcher processor and mothership sectors, ending the derby fishery has allowed for greater attention to production costs and product quality and the development of a broader range of products and higher utilization rates. In the inshore sector, the cooperative/processor structure has induced similar gains. Landings are coordinated by cooperatives to avoid gaps in processing and offload delays that might compromise product quality and increase processing costs. Many participants in the fishery use revenue sharing arrangements, under which both catcher vessels and the processors that they delivery to share gains from additional product revenues. In addition, the exclusive allocations under the program gave participants a secure interest that facilitated improved cooperative efforts to pursue added value for the fishery as a whole through Marine Stewardship Council certification.

While the pollock cooperative program, in and of itself, is considered a success by many stakeholders, some of the greatest effects of the program have arisen through ancillary management measures that are not directly part of the cooperative program. Almost simultaneously with the implementation of the cooperative program, NOAA Fisheries introduced area closures and measures to spatially and temporally disperse pollock catch to protect Steller sea lions. While these measures clearly impinged on fishing activity, participants were able to comply more readily and effectively through coordination of fishing in cooperatives using their exclusive allocations under the program. For example, rather than a concentrated derby developing in areas from which a limited portion of the allowable catch could be harvested, vessels coordinated harvests from those areas distributing catches over a greater period of time. More recently, a series of Chinook salmon bycatch measures that require extensive fleet coordination have been adopted. First, the Council adopted an industry managed system of "rolling hot spot closures," which rely on real time bycatch information to close areas of high Chinook salmon bycatch, as an alternative to a less flexible, regimented system of area closures that had unacceptable effect on Chinook salmon bycatch rates. To further Chinook salmon avoidance, the Council recently adopted an incentive program, under which participants who enter contractual agreements that contain incentives for Chinook salmon avoidance at all bycatch levels will be subject to a higher Chinook salmon bycatch cap. A performance standard requires that participants in this incentive program maintain bycatch well below the elevated cap in a majority of years to continue to receive the benefits of the elevated cap. The program is intended to accommodate uncertainties in Chinook salmon bycatch rates by creating incentives for Chinook salmon avoidance in years of low bycatch that would not exist under simple fixed quantity bycatch limits. Both the "rolling hot spot closures" and the proposed incentive agreements depend heavily on fleet sharing of catch and effort information that would likely have been inaccessible prior to implementation of the cooperative program.

Bering Sea and Aleutian Island crab rationalization program

Since their inception, the Bering Sea and Aleutian Islands crab fisheries attracted participants willing to undertake great financial and personal risks. This large vessel, industrial fishery has a large scale onshore processing sector with strong community dependence. Notwithstanding the adoption of measures to limit entry, several of these crab fisheries attracted excess capital with overcapacity resulting in a race for crab. In the each of the last four Bristol Bay red king crab fishery derby seasons (prior to the rationalization program), the entire season's allowable catch (between 8 million pounds and 14 million pounds of crab annually) was harvested in 5 or fewer days; in each of the last three Bering Sea *C. opilio* (snow crab) derby seasons, the season's allowable catch (in excess of 20 million pounds of crab annually) was harvested in fewer than two weeks. This derby management compromised safety as crews worked around the clock to maximize catch; economic returns were sacrificed by this race; and management and conservation of the resource was complicated as managers attempted to time each fishery's closing to avoid overruns of the allowable catch. In response to these concerns Congress directed the Council to consider "rationalization" alternatives for these fisheries. In response, the Council developed its Bering Sea and Aleutian Islands (BSAI) crab "rationalization" program, which Congress later authorized.

The Council's rationalization program reflects its desire to accommodate the interests of several groups dependent on these fisheries—vessel owners, processors, captains and crew, and communities. Under the program, 97 percent of the harvest share pool was initially issued to limited access license holders based on catch histories. The remaining 3 percent of that pool was allocated to captains, based on their fishing histories, for exclusive use by persons active in the fisheries. Processors were issued processing quota shares base on their processing histories in the fisheries. Under these allocations, 90 percent of the catcher vessel owner harvest shares are designated for delivery to holders of corresponding processing shares. Shares are divisible and transferable subject to limits. Share holders are permitted to form cooperatives to aid in the coordination of harvests. Community interests are protected through several measures including community landing requirements that maintained the historic distribution of landings in the first two years of the program, a regionalization program that requires that catch made with certain shares be landed and processed in designated regions, and community rights of first refusal on transfers of processing shares. An arbitration system is included in the program to resolve price disputes, which could arise because of the constraints on markets created by the dual harvester/processor share allocations.

Many harvesters were concerned about the price effects of the market restrictions of processor shares. Yet, in the first few years of the program, the arbitration program has effectively ensured that harvesters have continued to receive an ex vessel price that reflects their historic division of first wholesale revenues for landings, in lieu of a competitive price. In addition, the processor share component of the program has limited redistribution of landings from historic processing plants, which have substantial investments in the fisheries. Regional landing requirements have been particularly important in maintaining the distribution of landings to remote communities, particularly the Pribilof Island community of St. Paul. St. Paul is home to one of the largest crab processing plants and derives a notable share of its annual tax revenues from the Bering Sea *C. opilio* (snow crab) fishery. The rationalization program, together with a progression of U.S. Coast Guard safety measures, is believed to have improved safety in the fisheries by allowing captains to remain in harbors or stop fishing in inclement weather and take time to service vessels in-season without risking loss of catch. Some participants have also credited the program with allowing vessels to slow operations, resulting in significant fuel savings.

As expected, the program facilitated the removal of a substantial number of vessels from the fleet in the first year of the program, reducing the Bristol Bay red king crab fleet from approximately 250 vessels to fewer than 100 vessels and the Bering Sea *C. opilio* (snow crab) fleet from approximately 175 vessels to fewer than 80 vessels. This removal of capacity is believed to have provided a substantial return to those

vessel owners who sold their shares and retired their vessels or deployed them in other fisheries, with sale revenues being used to pay outstanding vessel mortgages or other vessel related costs (if the vessel is maintained for use in other fisheries) and remaining amounts being profits to the share holder.

Although this reduction in capacity was intended and expected, its immediacy and magnitude were not. The effect was a dramatic change in the number and nature of crew positions in the fisheries. With each vessel employing approximately 6 crewmembers, under the rationalization program the Bristol Bay red king crab fishery employs approximately 975 fewer crew, while the Bering Sea *C. opilio* (snow crab) fishery employs approximately 675 fewer crew. Because of the relatively small allowable catches in the fisheries in years leading up to the rationalization program, most crew worked only a month or so in the crab fisheries. Crew typically worked other jobs (including crew jobs in other fisheries) throughout the remainder of the year. In addition, since crew pay was (and is) typically based on vessel revenues, in the derby fishery, pay was subject to risk, as vessel breakdowns or poor catches could leave crew with little or no compensation. The relatively short tenure of crab crew jobs was attractive to many crew, particularly those with other employment who were able to take short periods away from that other employment to fish crab. Notwithstanding the relatively short term of these jobs, for many crew, crab fishing jobs were reported to have provided important contributions to annual income. Particularly in the case of crew from remote communities with few job opportunities, replacing income from lost crab crew jobs is reported to be problematic.

Overall, data and anecdotal reports suggest that the crew positions remaining in the crab fisheries are more stable and better paying under the rationalization program. Crew typically know the amount of shares that will be harvested and terms of payment prior to beginning fishing, allowing them to project income for a season. Prior to implementation of the rationalization program, compensation hinged entirely on success in the limited access derby fishery. The consolidation of catch under the rationalization program has reportedly allowed some crew to rely exclusively on crab fishing for their incomes. Other crew are reported to work on the crab vessel in other fisheries or tendering catches from catcher vessels to processors, relying on employment from their crab fishing vessels for all of their income. Vessel owners hiring crew generally give priority to crew willing to work in all crab fisheries that the vessel participates in (and non-crab fisheries or tendering, if the vessel engages in those activities). These preferences have led to changes in crew composition, as some former participants are unwilling to give up other employment to work exclusively for a crab vessel. Maintaining a steady crew, however, can greatly simplify vessel management, reduce hiring costs arising from high turnover, and improve efficiency and safety, as crew become more familiar with the vessel's operation and fellow crew. Although these benefits arise for most crew remaining in the fishery, many crew have lost the relatively high paying, short term work in the crab fisheries since implementation of the program.

The Council undertook two reviews of the program in its first three years and has adopted several amendments to address concerns that have arisen. Another review is scheduled later this year. One amendment frees shares initially allocated to captains from the landings limitations of processing shares, to increase harvest flexibility and allow active crew to receive greater value for their share holdings. Amendment packages have also been initiated to consider measures to strengthen community protections and increase the portion of the harvest share pool available only to active crew. Although these reviews and modifications may not allay concerns of all stakeholders, they demonstrate the Council's receptiveness, willingness, and commitment to consider changes to address program shortcomings.

Bering Sea and Aleutian Islands non-pollock groundfish trawl catcher processor cooperatives (Amendment 80)

In 2008, NOAA Fisheries implemented a Council approved cooperative program for the Bering Sea and Aleutian Island non-pollock groundfish trawl catcher processor sector, commonly known as Amendment

80. The fleet governed by this program participates in a variety of multispecies groundfish fisheries. Most vessels in the fishery have limited factory space and processing capability, producing only whole and "headed and gutted" frozen fish. These factors, in concert, led to disproportionately high discards rates in this fleet, as vessels discarded fish that were deemed to have no or very limited market value, given the processing constraints. To address this discard problem, the Council developed a "groundfish retention standard," which imposes stepwise increases in required retention over a period of years. In tandem with this retention standard, the Council developed the Amendment 80 cooperative program. The program allocates shares to vessels, which can then access exclusive annual allocations by joining a cooperative. The cooperative program allows vessels to manage (and meet) retention requirements in the aggregate at the cooperative level. Cooperative management typically increases communication among members, which should facilitate the exchange of information concerning fishing patterns and practices and their effects on catch composition, and consequently retention. In addition, application of retention standards at the cooperative level allows member of a cooperative to develop contracts defining terms under which vessels with relatively high retention rates derive a benefit from that retention from vessels with relatively low retention rates. The intended outcome is a system in which all vessels have an incentive for retention improvements. The exclusive share allocations under the cooperative program allow participants to slow fishing effort without losing a share of the allowable catch, refocusing that effort toward retention improvement. Exclusive share allocations also provide an opportunity for improved production efficiency, which should ease the cost burden associated with complying with the retention standard.

Two years into this program, most participants believe that the program has provided much of the expected benefits. Despite this consensus, the Council is currently considering two amendments to further improve the program. One amendment would modify cooperative formation standards (i.e., minimum membership requirements for cooperative formation) to more equitably distribute of negotiating leverage. The second amendment would allow for vessel replacement, which could improve safety, retention capability, and economic efficiency in the fleet.

Central Gulf of Alaska rockfish pilot program

The Council developed the Central Gulf of Alaska rockfish pilot program after the Secretary of Commerce received a directive from Congress to establish, in consultation with the North Pacific Council, a two-year pilot program for management of the directed fisheries for three rockfish species in the Central Gulf of Alaska - Pacific ocean perch, northern rockfish, and pelagic shelf rockfish. Congress later extended the program's duration to five years. Prior to implementation of the pilot program, these rockfish fisheries were prosecuted by trawl catcher vessels and catcher processors as a derby fishery during the first few weeks of July. These vessels all participate in other fisheries throughout the year. Landings from the rockfish fisheries often conflicted with landings from the summer salmon fisheries that are prosecuted at the same time. This conflict often led to delays in offloading, resulting in a decline in the quality of products. The program is intended to eliminate the race for fish and also allow participants to time fishing effort to avoid processing conflicts with other fisheries. These changes were intended to achieve improvements in product quality and value, provide stability to processing labor force, reduce bycatch, and improve habitat protections.

Based on the Congressional directive, stakeholder input, and public testimony, the Council developed a cooperative management program under which historic participants receive allocations of those three rockfish species, along with allocations of other important species typically harvested in these directed rockfish fisheries (including Pacific cod and sablefish). Shares are allocated to licenses, holders of which may access exclusive annual allocations by joining cooperatives. In the catcher vessel sector, each harvester is eligible for a single cooperative that must associate with the processor to which the harvester delivered the most landings to during a specific time period. Eligible vessels that choose not to join a cooperative may fish in a limited access fishery without an exclusive allocation. Although this constraint

on cooperative membership choices is very rigid, the Council believed that the cooperative/processor associations that would arise would achieve the program's objective of reducing processing conflicts with other fisheries and that, given the limited life of the program and potential for future modification, any competitive advantage arising under the structure would not be unduly exploited. The distribution of landings across several months in each of the first three years of the program suggests that the structure has facilitated the redistribution of landings to avoid those processing conflicts. Anecdotal reports also suggest that this redistribution has been used to reduce down time at processing plants, allowing for steadier employment of processing crews. Although processors made efforts to expand markets for higher value products in the first year of the program, product prices have not risen appreciably under the program. While some in the catcher vessel sector have been quick to suggest that the cooperative/processor associations of the program have diminished any incentive for quality improvements, the challenges associated with the development of new product markets in a down economy should not be overlooked.

Improved habitat protection and reductions in bycatch under the program are also notable. Since implementation of the program, habitat protection improvements have arisen as a substantially greater share of the fishery is prosecuted with "semi-pelagic" gear, which has less (and less forceful) contact with the seabed than the bottom trawl gear traditionally used in the fishery. In addition, bycatch reductions are achieve through a few aspects of the program's design. Discards are prohibited for all allocated species (with the important exception of halibut, as halibut retention is not permitted in any trawl fishery). Allocations of halibut under the program are strict limits on the catch of halibut. Any cooperative that has fully caught its allocation of halibut is required to stop fishing. To create an incentive for greater reductions of halibut catch in the fishery, halibut remaining at the end of the rockfish fishery in the November is reallocated to other trawl limited access fisheries. Under this system of binding halibut allocations, accompanied by the incentive of the reallocation, the fishery has cut halibut mortality per ton of directed rockfish to less than half the level of the best year preceding program implementation. The Council is currently considering options to reallocate less than 100 percent of the unused halibut allocation, in a manner that would maintain the incentive to avoid halibut bycatch while reducing total trawl fishery halibut mortality. The overall structure of the program has led some fishermen to acknowledge a wholesale change in their fishing objectives under the pilot program. Under limited access management, their objective was simply to "out fish" others in the fishery to maximize catches of the three directed species, while supplementing their income with allowable retention of other valuable non-directed species (such as Pacific cod and sablefish). Under the pilot program, their primary objective is to time fishing to accommodate both processor delivery schedules and personal time demands. When fishing, their objective is to fully harvest the various retainable species allocations as agreed with the cooperative and scheduled with the processor with minimal halibut bycatch. Because the pilot program is scheduled to expire at the end of the 2011 season, the Council is currently considering alternatives to perpetuate catch share management of the fishery.

Conclusion

Our experience in the North Pacific indicates that catch share management should be undertaken only as specific fishery and management needs dictate, rather than mandated through sweeping and general initiatives. In each case in which the North Pacific Council has advanced catch share management, the program was shaped, through an arduous, protracted process, to serve the specific needs of the fishery and the Council's management objectives for that fishery. Each program was developed against the backdrop of existing annual catch limits. In one case in particular – the development of a comprehensive "rationalization" program for all Gulf of Alaska groundfish fisheries – the Council determined after preliminary analysis and deliberations that its efforts to develop a catch share program should be abandoned for a variety of practical, social, and other reasons. These fisheries all continue to be managed under strict catch limits, with a variety of other management measures, including sector allocations for

some species. The Council similarly retracted its decision to advance a catch share program for the halibut charter fishery it manages and has instead advanced a variety of other management measures in that fishery, including separate commercial and charter annual catch limits, a moratorium on entry to the charter sector, bag limits, and limited opportunities for charter operators to acquire IFQ from the commercial sector. The Council is also considering a variety of other long term measures for the charter halibut fishery. The Council's decision to pursue management measures other than catch shares in these fisheries reflect its view that some fisheries may not lend themselves to catch share management.

In all of the catch share programs in the North Pacific, program elements reflect a balance of competing interests of those who rely on the fisheries, including vessel owners, processors, crew, communities, environmental interests, and the public. The resulting programs establish a balance of conservation and social goals against economic efficiency gains. Beyond the implementation of program allocations and mechanical regulations governing their use, monitoring and enforcement measures were adapted with the change to catch share management. Even applying an abundance of care, indirect and unanticipated effects arose in all of these programs. Consequently, the Council has (and must continue to) attend to unanticipated effects and adopt mitigating measures. In addition, several important management concerns (such as habitat and endangered species protections) are unlikely to be directly addressed by catch share management and require independent management measures. Catch shares management of a fishery may allow for new adaptive management measures that might be unworkable under other management programs. In addition, the flexibility provided to participants by catch share management may ease the burden associated with complying with those management measures.

Over the past 15 years, catch share programs have become an important part of the fishery management regime in the North Pacific. By using the authority to establish catch share programs with discretion, the North Pacific Council has developed an array of programs that serving a variety of interests in the fisheries it manages. The Council looks forward to advancing its management of North Pacific fisheries and appreciates the authority entrusted to the Council by Congress under the Magnuson Stevens Act (including the authority to develop catch share management, as appropriate).

Catch Share Programs in the North Pacific

	Halibut & Sablefish IFQ	Bering Sea and Aleutian Islands crab rationalization	AFA Bering Sea and Aleutian Islands pollock	Amendment 80 Bering Sea non-pollock groundfish trawl fishery	Central Gulf of Alaska rockfish pilot program (five year program)	Community Development Quota program
Type of allocations	Individual fishing quotas	Individual fishing quotas with cooperative option	Cooperatives with limited access option	Cooperatives with limited access option	Cooperatives with limited access option	Community quota
Year implemented	1995	2005-2006 season	1999 for catcher processors; 2000 for shoreside catcher vessels and mothership catcher vessels	2008	2007	1992
Catalyst for program	Derby fishery Short seasons Loss of product quality Safety Overcapitalization	Derby fishery Short seasons Overcapitalization Safety	Allocation dispute between inshore and offshore sectors.	Bycatch reduction Individual bycatch accountability	Derby fishery Short seasons Loss of product quality Conflicts with other fisheries (salmon processing)	Provide western Alaska villages with the opportunity to participate and invest in fisheries, for support economic development, and economic and social benefits for resident
Program development	Council program under MSA	Council program under specific Congressional authority	Congressionally developed program with some Council developed components	Council program under MSA authority	Congressionally mandated program developed by the Council	Council initiated program for BSAI pollock; Extended to other species by MSA

Catch Share Programs in the North Pacific

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Harvester initial allocation	Vessel owners (based on catch histories)	97 percent to limited entry license holders; 3 percent to captains (C shares) (based on catch histories)	Vessel owners (based on catch histories)	Vessel owners (based on catch histories)	Limited entry license holders (based on catch histories)	NA
Processor component	None	Processor quota shares and price arbitration	Severable processor/cooperative associations established based on landings histories	NA	Inseverable processor/cooperative associations based on landings histories	NA
Gear type	Bottom longline	Pot	Mid-water trawl	Pelagic and bottom trawl	Bottom and semi-pelagic trawl	NA
Operation type	90 percent catcher vessel; 10 percent catcher processor	90 percent catcher vessel; 10 percent catcher processor	50 percent shoreside catcher vessel; 40 percent catcher processor; 10 percent catcher vessel mothership	100 percent catcher processor	50 percent catcher vessel; 50 percent catcher processor	NA
Vessel size	~15’ - 135’ catcher vessels; ~55’ - 175’ catcher processors	~78’ - 180’	~80’ - 200’ catcher vessels; ~200’ - 376’ catcher processors	~110’ - 300’	~70' - 165' catcher vessels; ~105' - 230' catcher processors	NA

Catch Share Programs in the North Pacific

	Halibut & Sablefish IFQ	Bering Sea and Aleutian Islands crab rationalization	AFA Bering Sea and Aleutian Islands pollock	Amendment 80 Bering Sea non-pollock groundfish trawl fishery	Central Gulf of Alaska rockfish pilot program (five year program)	Community Development Quota program
Area/species allocations	14 allocations of halibut and sablefish (black cod)	9 allocations of red king crab, blue king crab, golden king crab, *C. opilio* (snow crab), and *C. bairdi* (Tanner crab)	2 allocations of pollock	10 allocations of Pacific Ocean perch, Atka mackerel, yellowfin sole, Pacific cod, rock sole, and flathead sole; 5 bycatch allocations of halibut, red king crab, *C. opilio* (snow crab), and *C. bairdi* (Tanner crab)	8 allocations of Pacific Ocean perch, northern rockfish, pelagic shelf rockfish, shortraker rockfish, rougheye rockfish, Pacific cod, sablefish (black cod), thornyhead rockfish; 1 bycatch allocation of halibut	All BSAI groundfish and crab species
Allocation in most recent season	48.0 million pounds - halibut; 30.0 million pounds - sablefish (black cod)	52.7 million pounds - Bering Sea *C. opilio*; 18.3 million pounds - Bristol Bay red king crab; 2.8 million pounds - E. Aleutian Is. golden king crab; 2.3 million pounds - W. Aleutian Is. golden king crab	868,500 metric tons	320,000 metric tons (all retainable species allocaitons combined)	12,880 metric tons Pacific Ocean perch, northern rockfish, and pelagic shelf rockfish (includes limited access)	10 percent of pollock TAC; 7.5 - 20 percent of sablefish TAC; 10.7 percent of other groundfish TAC; 7.5 - 10.7 percent of crab TACs; 20 - 100 percent of halibut

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Number of vessels in season prior to program implementation	3,450 halibut; 1,196 sablefish	167 - Bering Sea *C. opilio*; 251 - Bristol Bay red king crab; 20 - E. Aleutian Is. golden king crab; 6 - W. Aleutian Is. golden king crab	38 - catcher processors; 113 - catcher vessels	22	6 catcher processors; 25 catcher vessels	NA
Number of vessels in most recent season	1,156 halibut; 362 sablefish (black cod)	78 - Bering Sea *C. opilio*; 74 - Bristol Bay red king crab; 4 - E. Aleutian Is. golden king crab; 3 - W. Aleutian Is. golden king crab	20 - catcher processors; 91 - catcher vessels	22	4 catcher processors; 25 catcher vessels	NA
Pre-program management	Derby fisheries with total allowable catch limit; No limit on entry	Derby fisheries with total allowable catch limit; Limited entry	Derby fisheries with total allowable catch limit; Limited entry	Derby fisheries with total allowable catch limit; Limited entry	Derby fisheries with total allowable catch limit; Limited entry	NA
Buyback	No	Yes – 25 vessels	Yes – 9 CPs	No	No	NA

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Observers	No - halibut; No - sablefish under 60'; 30 percent - pot sablefish 60' and over; 30 percent - longline sablefish 60' and over and under 125'; 100 percent sablefish longline over 125'	100 percent - catcher processors; 20 - 50 percent - catcher vessels (varies by fishery)	200 percent - catcher processors; 100 percent - catcher vessels over 125' 30 percent - catcher vessels 125' and under	200 percent	200 percent - catcher processors; 100 percent - catcher vessels	Yes
VMS	No - halibut; Yes - BSAI sablefish	Yes	Yes	Yes	Yes	Varies based on operation
Cap on individual share holdings/use	1 percent	1 percent - 10 percent (varies by fishery)	17.5 percent	30 percent of aggregate quota	5 percent - catcher vessels; 20 percent catcher processors	NA
Vessel use cap	1 percent	None in cooperative; 2 percent - 20 percent if outside cooperative (varies by fishery)	17.5 percent	20 percent of aggregate quota	30 percent for catcher processors	NA
Cooperative use cap	NA	None	None	None	30 percent for catcher vessels	NA
Processing cap	None	30 percent of processor shares by fishery	30 percent	NA	30 percent	NA
Share classes	Vessel size and operation type (CV/CP)	Operation type (CV/CP) and Owner share/Crew share	Operation type (CV shoreside/CP/CV mothership)	No	Operation type (CV/CP)	NA
Owner-on-board/ active participation requirements	Owner-on-board requirement (recipients of initial issuance exempt in some areas)	Active participation requirement for C shares;	None	None	None	NA

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Eligibility to acquire shares	Sea time requirement	Sea time requirement for all shares; active participation for C shares	None	None	None	NA
Community provisions	Community quota purchase program (CQE)	2 year port specific landing requirement; Regional landing requirements; Community right of first refusal on processor quota	None	NA	None (processor component may bring some community benefit)	Program intended to benefit western AK communities by providing direct allocations to entities representing those communities.
Sideboards (limits on expansion in other fisheries)	No	Gulf of Alaska groundfish	Bering Sea and Aleutian Islands and Gulf of Alaska groundfish	Gulf of Alaska groundfish	Bering Sea and Aleutian Island and Gulf of Alaska groundfish (July only)	NA
Number of follow up amendments	Many	Many	Few	Few	One; Several pending	Many; Also amended by Congress
Elements to improve entry opportunities	Limited consolidation of small blocks of quota; loan program	C share QS - requires active participation for acquisition and retention; loan program (yet to be implemented)	None	None	5 percent set aside for ineligible license holders	NA

Note: Excludes voluntary cooperative arrangement in the scallop fishery.