

**Discussion paper on an amendment package  
Central Gulf of Alaska rockfish pilot program  
North Pacific Fishery Management Council  
December 2008 and February 2009**

At its June 2008 meeting, the Council received a report from staff reviewing the first year performance of the Central Gulf of Alaska rockfish pilot program. On receiving the report and public testimony, the Council requested staff to prepare a discussion paper examining possible changes to the program. The Council specifically requested staff to examine the following aspects of the Central Gulf of Alaska rockfish pilot program:

- 1) A possible amendment to the program providing that:

A person who operated a vessel in the Central Gulf of Alaska rockfish fisheries during the 1996-2002 period under an interim License Limitation Program licence that was determined after such period to have an invalid Central Gulf of Alaska trawl gear endorsement, who then acquired an additional LLP license with a valid Central Gulf of Alaska trawl gear endorsement and assigned it to such vessel by December 31, 2003, shall be eligible to receive Rockfish Quota Share under the Rockfish Pilot Program based on the catch history of such vessel, notwithstanding the invalidity of the interim Central Gulf trawl LLP endorsement under which the vessel operated during the 1996-2002 period. Rockfish Quota Share allocated under this provision shall be assigned to the additional LLP license.

In the discussion of this provision, the Council requested staff to include a discussion of the removal of a similar provision from the alternatives considered when the pilot program was originally adopted and a discussion of any catcher vessel and catcher processor licenses that might be affected by this or a similar provision.

- 2) The use of a harvester only cooperative for the entry level trawl fishery and other possible mechanisms that could be used to control effort in the entry level trawl fishery.
- 3) Additional options to rollover catch from the fixed gear entry level fishery to the trawl entry level fishery, including various dates for the rollover and different allocations to the fisheries.
- 4) A change in the management of shortraker in the catcher processor sector from an allocation to a maximum retainable amount (MRA).
- 5) A change in the management of MRAs under the program to include catch of allocated secondary species in the basis for determining the MRA of a species that is not allocated.

At its October 2008 meeting, the Council requested staff to examine an additional aspect of the program in the discussion paper, specifically:

A change that would either a) provide an exclusive halibut PSC allocation to the entry level trawl fishery or b) exempt halibut PSC mortality of the entry level trawl fishery from any limit on halibut mortality.

This paper is staff's response to these Council requests.

## ***Background***

In the 2003, the U.S. Congress directed the Secretary of Commerce to establish, in consultation with the Council, a pilot program for management of the rockfish fisheries in the Central Gulf of Alaska (the Central Gulf).<sup>1</sup> Specifically, Congress passed the following legislation:

SEC. 802. GULF OF ALASKA ROCKFISH DEMONSTRATION PROGRAM. The Secretary of Commerce, in consultation with the North Pacific Fishery Management Council, shall establish a pilot program that recognizes the historic participation of fishing vessels (1996 to 2002, best 5 of 7 years) and historic participation of fish processors (1996 to 2000, best 4 of 5 years) for pacific ocean perch, northern rockfish, and pelagic shelf rockfish harvested in Central Gulf of Alaska. Such a pilot program shall (1) provide for a set-aside of up to 5 percent for the total allowable catch of such fisheries for catcher vessels not eligible to participate in the pilot program, which shall be delivered to shore-based fish processors not eligible to participate in the pilot program; (2) establish catch limits for non-rockfish species and non-target rockfish species currently harvested with pacific ocean perch, northern rockfish, and pelagic shelf rockfish, which shall be based on historical harvesting of such bycatch species. The pilot program will sunset when a Gulf of Alaska Groundfish comprehensive rationalization plan is authorized by the Council and implemented by the Secretary, or 2 years from date of implementation, whichever is earlier.

Although originally subject to a sunset after 2 years, the 2007 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (the MSA) extend the term of the program to 5 years. Under this extension, the program is scheduled to sunset after the 2011 season.

Following a typical schedule for this amendment package will require this discussion paper, followed by initial and final review of an analysis by the Council. After Council action, a regulatory package will be prepared for submission to the Secretary of Commerce, followed by the standard process for publication and comment on the proposed rule and issuance of the final rule. Under an expedited process, this action would be completed in time for any amendments to be in place for the fifth and final year of the program. In addition, commitment of staff time to an amendment analysis could limit staff availability for analysis of the any program extension.

Absent Congressional action, Council extension of the program will require the standard MSA regulatory process evaluating the program (or a modification of the program) and other alternatives (including the status quo, under which the fishery would return to management under the License Limitation Program). The action necessary to extend the life of the program is likely to be very time consuming for both staff and the Council.

The current rockfish management is a comprehensive management program that allocates annual harvest privileges of several species to cooperatives based on the historic participation of their members. Since these allocations are a Federal permit, issued as part of a limited access system, to harvest a quantity of fish expressed by units representing a portion of the total allowable catch of the fishery that may be held for exclusive use by a person, the allocations are defined limited access privileges under the MSA. In the reauthorization of the MSA, Congress revised both procedural and substantive requirements for adoption of limited access privilege programs. These requirements include the consideration of additional factors and program elements (such as the participation of fishing communities and regional fishery associations) and set asides for entry level or small vessel fishermen. In addition, privileges expire after a ten year

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<sup>1</sup> Directed (or "primary") rockfish fisheries are prosecuted for Pacific ocean perch, northern rockfish, and pelagic shelf rockfish (which includes dusky rockfish, yellowtail rockfish, and widow rockfish) in the Central Gulf.

period, but are renewed unless they are revoked, limited, or modified for failure to comply with either specific program requirements or violation of an MSA prohibition. Development of a program under these new provisions will likely exacerbate an already long time for regulatory implementation.

Additional program development by the Council and additional staff analysis arising from the revised MSA requirements are likely to be compounded by the need to revise aspects of the existing program. Specifically, aspects of the program intended to benefit processors may be beyond the general authority granted the Council under the MSA. In the catcher vessel sector, each qualified harvester is eligible for a single cooperative, which must associate with the processor to which it delivered the most pounds of rockfish during an identified period. Catcher vessels that choose not to join their associated cooperative may fish a limited access fishery without an exclusive allocation. No clear MSA authority authorizes a requirement that a harvester associate with a specific processor to access an exclusive harvest privilege. If the Council wishes to advance a program that fosters harvester/processor associations, that aspect of the program would need careful development in light of the authority of the MSA. Further consultation with NOAA General Counsel will be required, if the Council wishes to extend some fishery privileges (either harvester or processor) to processors in the fishery. In addition, other new management structures, such as regional fishery associations or fishing communities, could be used to extend benefits to processing interests.

An alternative approach to addressing rockfish program concerns identified by the Council is to incorporate program modifications into an analysis to extend the program. Although this could delay the implementation of the changes, this approach would ensure that the benefits of the changes would be realized for an extended period, rather than for the limited period until the sunset of the program. If the Council elects to include any program revisions in an action to extend the life of the program, it could undergo a broader scoping process to ensure that all desirable program changes (including changes to the protections of processor interests) are incorporated into that action. This approach could allow the Council to consider whether management provisions that are not permitted by the existing structure might better address issues in the fishery. For example, the current authority requires a 5 percent entry level set aside, but does not provide a means for entry level participants to transition into the larger program without purchasing a qualifying license. Under the general MSA authority (instead of the rockfish program authorization) it is possible that the Council could choose different means of allowing transition to the main program for entry level participants.

### ***Discussion of possible program revisions***

The remainder of this paper discusses the suggested revisions to the program included in the Council's June and October 2008 motions.

### **Allocations to persons who fished with interim licenses**

The first proposed change to the program would create program eligibility for vessels that fished the Central Gulf rockfish fishery during the qualifying period with interim licenses that were later revoked, but who acquired a valid license to remain in the fishery. Specifically, the Council has proposed:

A person who operated a vessel in the Central Gulf of Alaska rockfish fisheries during the 1996-2002 period under an interim License Limitation Program licence that was determined after such period to have an invalid Central Gulf of Alaska trawl gear endorsement, who then acquired an additional LLP license with a valid Central Gulf of Alaska trawl gear endorsement and assigned it to such vessel by December 31, 2003, shall be eligible to receive Rockfish Quota Share under the Rockfish Pilot Program based on the catch history of such vessel, notwithstanding the invalidity of the interim Central Gulf trawl LLP endorsement under which the vessel operated during the

1996-2002 period. Rockfish Quota Share allocated under this provision shall be assigned to the additional LLP license.

#### Background

The Council also requested staff to include a discussion of the removal of a similar provision from the alternatives considered when the pilot program was originally adopted and a discussion of any catcher vessel and catcher processor licenses that might be affected by this or a similar provision.

In the early development of the program alternatives, the Council included for consideration the following provision:

Persons who have purchased an LLP, with a CGOA endorsement to remain in the fishery may obtain a distribution of harvest share history of either the vessel on which the LLP is based or on which the LLP is used, not both. License transfers for purpose of combining LLPs must have occurred by April 2, 2004.

As discussed by the Council when it was under consideration, this provision would allow a person who acquired a license for use on a vessel to obtain either the history of the vessel that the license is assigned to or the history of the vessel from which the license originated (but not both). In the event that the provision were adopted by the Council, the proposed amendment would be unnecessary (since it would be redundant). The provision was removed by the Council on the suggestion of the Advisory Panel at its February 2005 meeting, when the Council received a preliminary analysis of options. At the time, no public testimony was received in support of the provision. It is also believed that no one spoke in support of the provision prior to Council action defining the program. The absence of supports of the provision (or testimony from persons who might rely on the provision for an allocation) likely contributed to the Council's rejection of it.

#### Possible amendment to create eligibility for persons who fished with interim licenses

The Council requested discussion of the proposed amendment after receiving testimony that at least one vessel owner who participated in the fishery historically was denied an allocation under the program, despite having acquired an LLP license that would support continued participation in the rockfish fishery under the LLP.

To qualify for the rockfish pilot program a person needed to hold a valid LLP license endorsed for the Central Gulf that was used for at least one targeted rockfish landing during the qualifying years (i.e., a landing in which the sum of primary rockfish pounds exceeded pounds of all other groundfish combined). This provision would qualify a person whose vessel:

- 1) did not qualify for a Central Gulf endorsed LLP,
- 2) had at least one targeted landing of Central Gulf rockfish during the qualifying years, and
- 3) assigned a valid, permanent Central Gulf endorsed trawl license to the vessel prior to December 31, 2003 (which license is still assigned to the vessel).

Using these criteria, two catcher vessels and no catcher processors appear to qualify for the provision. This estimate is based on the number of vessels that have targeted rockfish catch in the qualifying period that did not receive a Central Gulf endorsed LLP, but have since assigned one to the vessel. One of these two vessels participated in all seven qualifying years; the other participated in only one of the qualifying years. Since only two vessels appear to qualify for the provision, no information concerning catch amounts of these vessels can be released.

In considering this action, the Council should consider the effects of the action on the allocations of both primary rockfish and other species allocated under the program. The allocation of primary rockfish to the program is made after first deducting an incidental catch allowance to support rockfish catch in other fisheries and an entry level set aside to support that fishery. The creation of eligibility for additional licenses by this action would not affect those allocations. The portion of the rockfish TAC remaining after these deductions is divided between the two sectors that participate in the rockfish program (the catcher vessel sector and the catcher processor sector) and is then divided among cooperatives and the limited access fisheries. These sector, cooperative, and limited access allocations of the different primary rockfish species are all proportional allocations based on the respective quota share holdings of participants in the sectors, cooperatives, and limited access fisheries. Consequently, the qualification of additional licenses and history for the program would have the effect of redistributing a portion of the primary rockfish allocations under the program to the sector, cooperative, or limited access fishery of the newly qualified participants. So, the effect of new qualification on the primary rockfish allocations would be to dilute the allocations to current participants based on the proportion of newly qualified history.

In addition to primary rockfish species, program participants also receive allocations of secondary species (which may include Pacific cod, sablefish, shortraker rockfish, rougheye rockfish, and thornyhead rockfish)<sup>2</sup> and halibut PSC. Under the program, each sector can receive a maximum allocation of secondary species equal to the sector's retained incidental catch of the secondary species in rockfish target trips during the rockfish fishery in the qualifying years. The inclusion of additional qualified licenses in a sector would add qualifying history to that sector for retained incidental catch of secondary species by the license holder. If credited under the amendment, this additional history could be expected to slightly increase the allocation of secondary species to the sector. The increase in the allocation to the rockfish program would reduce the amount of the species available to other fisheries. Within each sector, each cooperative receives allocations of all allocated secondary species in proportion to its members' rockfish primary rockfish quota shares. So, if a cooperative's members have 20 percent of the primary rockfish quota shares, it will receive 20 percent of the maximum sector allocation of each secondary species.<sup>3</sup> The effects of the allocation to the newly eligible license on other participants in the sector depends on whether the new license's secondary species history relative to its rockfish history is greater or less than that of other sector members. A newly eligible license with a high catch rate of a secondary species relative to primary rockfish species could slightly increase the allocation of the secondary species to other sector members. In any case, the effect is likely to be minor as it will be dissipated across participants in the sector.

The effect of new eligibility on halibut PSC allocations is likely to be similar to the effect on secondary species allocations. Halibut PSC allocations to sectors, however, are calculated in a slightly different manner than secondary species allocations. Halibut PSC allocated to the program is based on total halibut usage in the rockfish fisheries during the qualifying years. This total PSC allocation is divided between the sectors in proportion to the primary rockfish history of the two sectors. As a consequence, a newly eligible license with substantial rockfish history, but little PSC could result in a slight increase in halibut PSC available to its sector (if the sector's halibut PSC allocation is adjusted under the amendment) and a slight decrease in the halibut PSC available to the other sector. A similar distributive effect would happen within the newly eligible license's sector, as the vessel would bring halibut PSC to its cooperative in proportion to its rockfish quota share.

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<sup>2</sup> Currently the catcher processor sector catch of Pacific cod and the catcher vessel sectors catch of shortraker rockfish and rougheye rockfish are managed through maximum retainable amounts (MRAs), rather than direct allocations. In addition, all catches of secondary species in the limited access fisheries are managed through MRAs.

<sup>3</sup> If one or more sector members elect not to participate in a cooperative, the maximum amount will not be allocated. Withholding this allocation is intended to allow for harvests of the species by the limited access fishery under MRA management.

## **Changes in management of the entry level fisheries**

The Council has suggested three possible changes to management of the entry level fisheries. First, the Council has suggested a change from limited access management to some other form of management (such as cooperatives) for the entry level trawl fishery. Second, the Council has suggested either a direct allocation of halibut PSC to the entry level trawl fishery or the exemption of that fishery from halibut PSC limitations. Third, the Council has suggested revision of the rollover from the entry level fixed gear fishery to the entry level trawl fishery to allow more complete harvest of that allocation. Each of these proposals is examined after a brief description of the entry level fisheries.

### Background

The ability to provide information concerning the entry level fishery is limited because few vessels and processors participated in those fisheries in the first year of the program. This discussion attempts to provide useful information to the extent that is permitted.

The entry level fishery is open to harvesters that are not eligible for the primary program. All deliveries from the entry level fisheries must be made to processors that are not eligible for the primary program. The entry level trawl fishery would be prosecuted as a competitive limited access fishery, open, on application, to any LLP license holders endorsed for the CGOA. The fixed gear fishery opens on January 1<sup>st</sup> each year. The trawl fishery is scheduled to open on the 1<sup>st</sup> of May, if halibut PSC is available. If PSC is unavailable at that time, the fishery would open upon the next release of halibut PSC. Since historic harvests suggested that the fixed gear sector may be unable to fully harvest its allocation, trawl participants are permitted to harvest the fixed gear allocation after September 1<sup>st</sup>. To maintain parity, the fixed gear sector is permitted to harvest any remaining portion of the trawl allocation after September 1<sup>st</sup>.

The trawl and fixed gear sectors receive equal allocations of the aggregated TACs of primary rockfish species available to the entry level fishery. Because of operational differences, the trawl sector receives its portion of the aggregate TACs first from the entry level TAC of Pacific ocean perch. If the Pacific ocean perch TAC is less than the total allocation to the trawl sector, the sector receives proportional shares of the northern rockfish and pelagic shelf rockfish TACs, such that entry level TAC is divide equally between the two gear types. The rationale for allocating Pacific ocean perch first to the entry level trawl sector is that the entry level fixed gear sector has no harvest history of the species and targeting of Pacific ocean perch with fixed gear is primarily experimental at this time.

Vessels fishing the fixed gear entry level allocation in Federal waters must have an LLP (if required for the vessel to operate in Federal waters) and must have registered for the entry level fishery. Fixed gear vessels that fish exclusively in parallel waters and do not have an LLP or a federal fisheries permit do not need to register for the program. In addition, these vessels that fish exclusively in parallel waters and do not have an LLP or federal fisheries permit may deliver their catch to any processor, including processors qualified for the main program (who cannot otherwise receive deliveries from the entry level fisheries). This relaxation of landing constraints allows greater flexibility for vessels that fish exclusively inside 3 nm by allowing them to deliver mixed loads of pelagic shelf rockfish and black rockfish to processors of their choice; however, it also allows processors participating in the main program to compete for entry level deliveries, which would otherwise be reserved for delivery to processors that do not qualify for the main program.

In the first and second years of the program, only a single vessel registered for the entry level fixed gear fishery. Since all harvests of primary rockfish by fixed gear vessels (inside or outside 3 nm) is counted against the entry level TAC, several vessels have reported harvests against the entry level TAC. Yet, these harvests have been relatively minimal in comparison to the available TAC (see Table 1). The fishery

harvested less than one percent of either of its Pacific ocean perch or northern rockfish allocations. Less than 10 percent of the pelagic shelf rockfish allocation was harvested by the fishery.

**Table 1 Entry level fixed gear TACs and catch (2007 and 2008).**

fix tac and catch

		2007	2008*
Pacific ocean perch	TAC	17	54
	catch	0	0
	percent caught	0.00	0.00
Northern rockfish	TAC	169	115
	catch	1	1
	percent caught	0.59	0.87
Pelagic shelf rockfish	TAC	161	176
	catch	11	14
	percent caught	6.83	7.95

Source: NMFS gear reports

\* Harvests through August 29, 2008.

In the first and second years of the program, the entry level trawl fishery received allocations of Pacific ocean perch only under the priority rule established for allocating species to the two entry level fisheries. Only two and four trawl vessels registered for the entry level trawl fishery in these two years, respectively. In the first year, both registered vessels participated in the fishery. The relatively small allocation to the fishery (approximately 350 tons of Pacific ocean perch) posed a management challenge, since vessels can harvest on the order of 100 metric tons in a day. Given the catching power of vessels in the fishery, it is difficult to time a closure to avoid overharvests. In the first year of the program, the two participating vessels managed to coordinate catches to avoid an overage in the fishery. On September 1<sup>st</sup>, entry level trawl participants were permitted to catch any unharvested portion of the entry level fixed gear allocations. Under this rule, managers opened both fisheries for northern rockfish and pelagic shelf rockfish for entry level trawl participants. The fishery for northern rockfish closed in November, but the fishery for pelagic shelf rockfish remained open through the end of the year. Participants have reported that the late opening conflicts with other fisheries, that rockfish are difficult to target during this period of the year, and that halibut PSC mortality in the third season Pacific cod fishery could limit the halibut PSC available to the entry level trawl rockfish fishery.

In the second year of the program, the opening of the entry level trawl fishery was delayed because the second seasonal trawl halibut PSC apportionment was fully used by the May 1<sup>st</sup> scheduled opening. When the fishery opened in July with the third season halibut PSC apportionment coming available, registered participants were in the process of negotiating an arrangement intended to allow the fishery to be prosecuted without exceeding the TAC. One participant began harvesting Pacific ocean perch on July 1<sup>st</sup> asserting and reporting those harvests were from Area 640, outside of the Central Gulf; however, NOAA Fisheries determined those harvests to be from the Central Gulf and to have fully harvested the available TAC to the entry level fishery. Consequently, the entry level trawl fishery was closed prior to any of the other vessels beginning to fish. As in the first year, managers opened all three directed trawl fisheries to allow entry level trawl participants to harvest the remaining entry level fixed gear TAC. These fisheries have remained open to date, as eligible vessels have chosen not to attempt to harvest these remaining TACs.

#### Possible change from limited access management of the entry level trawl fishery

The relatively small allocation to trawl participants is difficult to manage in a limited access, race-for-fish. A system that allows managers to more reliably ensure that the fishery can be opened without potential for the TAC to be exceeded might be preferable to the existing management.

Even with few vessels entering the fishery, managers have expressed concern that timing fishery closures to allow harvest of a substantial portion of the TAC without overages is extremely challenging. Although managers can use strategies such as short openings of less than 24 hours to limit catches, it is not possible to manage the TAC precisely. Participants have attempted to use gentlemen's agreements to limit harvests in these circumstances, but absent a management structure to compel these limits, the potential for these agreements to be reached and abided by is questionable. As a result, management of the small allocation to trawl vessels in the entry level fishery is likely to continue to be problematic under the current rules.

The management of the entry level fishery also poses problems related to the processing of catches. In the first year of the program, delivery scheduling posed challenges for trawl participants as a result of the race-for-fish management of the trawl fishery and the prohibition on deliveries to processors qualified for the main program. If prosecution of the rockfish fishery conflicts with other activity at entry level plants, deliveries under the program can create logistical complications for the plants and can lead to delays and loss of fishing time for harvesters and reduced product quality and value. Since the trawl entry level fishery can only support a few deliveries, no economies of scale are likely to be realized by processors gearing up for those deliveries.

The Council suggested that this discussion paper examine alternatives to the current limited access management of the entry level trawl fisheries that would control effort. The Council suggested use of cooperatives for this purpose, but also suggested that the paper could examine other possible management measures. Other suggested measures include individual allocations and the use of a lottery to limit the number of persons eligible to participate.<sup>4</sup>

Since an individual allocation is the simplest and most reduced form of exclusive allocation, that possible measure is discussed first. Under a system of individual allocations, the entry level trawl TAC could be equally divided among the applicants for the fishery. Allocations could be fished at any time (if adequate halibut mortality is available to support the fishing). Each holder of an individual allocation would be constrained by the allocation the person received and would be liable for any overage. These constraining allocations and accompanying liability for overages would effectively address the TAC management (or effort control) issues in the fishery. To date, only four trawl vessels have applied for the program. Under the recent allocation levels, with only four participating vessels, each vessel will receive slightly more than 80 metric tons of Pacific ocean perch. Although not overly generous, this allocation is likely adequate to support participation. If additional persons apply for the fishery, it is possible that allocations could be too small to support participation.

Depending on the Council's preference, individual allocations could be transferable. Transferability could aid participants in achieving efficiencies (allowing the most efficient vessels to harvest the allocations) and could be used to aggregate small residual amounts of the TAC to allow the TAC to be more fully

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<sup>4</sup> In developing alternative management structures for the limited access fishery, the Council should be cognizant of the authority under which the program would be developed. Exclusive allocations to either individuals or cooperatives are both defined as limited access privileges by the MSA as reauthorized. It could be argued that the establishment of new limited access privileges in the entry level fishery should follow the requirements of the MSA as reauthorized. Countering this argument is that the rockfish program (including the entry level fishery) was established under separate authority prior to the reauthorization of the MSA, which expires after 5 years.

harvested. Unlimited transferability, however, could have some undesirable consequences. If an entire allocation can be transferred, some absentee ownership may occur, as applicants may elect to transfer their entire allocations, rather than fish. At the extreme, allowing unlimited transferability of individual allocations could induce persons who have no intention of fishing to apply for the entry level fishery, expecting to lease their allocation to another participant. So, if the Council intends to use a system of individual allocations, it could consider some limitations on transfers to ensure the participants in the entry level fishery actually enter the fishery (not just the market for shares). Limiting the percentage of a person's allocation that may be transferred may effectively address this problem.

An alternative to individual allocations in the entry level fishery could be a cooperative structure. Cooperatives can provide benefits to participants, as they provide a structure for coordination of harvest activity. In addition, cooperatives can reduce management burdens, as harvest activity is monitored at the cooperative level, instead of at the individual or vessel level.

In the past, the Council has used a variety of harvest cooperative structures to ensure that the cooperative achieve their intended purposes. In some instances (including in the management of the rockfish program generally), the Council included a requirement that cooperatives association with specific processors to preserve historic processor/harvester associations and to ensure processors share in the benefits of the program. Any cooperative structure that has a processor component would require some assessment of the Council's authority for the structure. Whether a processor component is authorized is not known and may depend on whether the Council chooses to adopt modifications under its original authority for establishing the rockfish program or the MSA as reauthorized. If the Council elects to include a processor component in its program that provision will require careful assessment of its authority.

The Council has typically included a variety of provisions in its cooperative programs (such as minimum membership thresholds and provisions defining the scope of liability of members for cooperative harvest activity) to ensure that the programs function as intended. Membership thresholds have been applied to ensure that participants form cooperative associations of size adequate to achieve the desired level of coordination. The use of minimum membership thresholds for cooperative formation when combined with a requirement of cooperative membership to receive an exclusive allocation can raise equity concerns, since participants could use membership thresholds to apply undue negotiating pressure on others. Once a threshold is met, cooperative members may be able to demand favorable terms from others in the entry level if cooperative membership is required to participate in the fishery. For example, if only three persons apply for the entry level fishery, even a membership threshold of two, could allow two of the applicants to impose onerous membership terms on the third applicant. With few persons showing an interest in the entry level fishery to date, a requirement of cooperative membership to receive an exclusive allocation could have unpredictable distributional consequences.

If the Council elects to include a cooperative structure in its management of the entry level fishery, it should also consider the level of participation that will be required of any participant in the fishery. If three persons apply for the entry level fishery and form a cooperative, one participant could harvest the entire allocation in the fishery. If the objective of the entry level set aside is to allow entry to the fishery, it is possible that that objective will not be met under a cooperative structure that does not include participation requirements. In a system of individual allocations, transfers can be prohibited to prevent non-participating applicants to the entry level fishery from deriving benefits from an exclusive allocation. Under a cooperative structure, defining requirements to achieve participation goals may be more difficult. Since allocations are managed at the cooperative level, it is not possible to use a limit on transfers to achieve participation objectives.

Revising management to a system of individual allocations or cooperatives would require reconsideration of observer coverage in the entry level fishery. Currently, entry level trawl vessels are only required to

carry an observer, if they fish 3 or more days. Vessels that are required to have an observer on board must have at least 30 percent of fishing trips in the directed fishery in each quarter or at least one fishing trip. In the main program, under which cooperatives receive exclusive allocations, catcher vessels are required to maintain 100 percent observer coverage. Modification of observer coverage levels will need to be considered, if the fishery is modified to one of exclusive allocations.

It has also been suggested that a lottery system could be used to limit entry or allocate shares in the entry level fishery. If the Council elects to continue management through a limited entry system, the use of a lottery might be promoted to avoid catch management challenges arising because the effort in the fishery cannot be effectively managed. Yet, given the performance of the entry level trawl fishery in the first two years of the program, it is unlikely that simply limiting the number of vessels in the fishery will address that management issue.

It is unclear whether a lottery system could be efficiently administered by NOAA Fisheries or whether a lottery would be deemed suitable. A lottery for allocating privileges might be challenged for fairness or causing instability. In addition, participants in the lottery would need to have the opportunity to appeal lottery outcomes. Appeals could cause delays in fishing or lead to program ineffectiveness. In any case, a lottery system will require substantial development of administrative aspects.

The suggested revisions to the entry level trawl fishery could involve several layers of decisions for the Council. These include:

- A. limited entry management
  - a. whether to include a lottery to allocate privileges or limit entry
  - b. other means to control effort
- B. cooperative management
  - a. basis for allocations
    - i. equal allocations to all license holders
    - ii. possible discount for non-members of cooperatives
  - b. cooperative formation requirements
  - c. opportunities for persons unable to reach cooperative agreements
    - i. individual allocations
    - ii. limited entry
    - iii. other opportunity
  - d. required level of participation for cooperative membership
  - e. transferability of allocations among cooperatives or individuals (if individual allocations for non-members of cooperatives)
- C. individual allocations
  - a. basis for allocations
    - i. equal allocations to all license holders
    - ii. other allocation rule
  - b. required level of participation
  - c. transferability of allocations

It should be noted that the complexity and depth of program modifications required for this change may be comparable to the development of a share-based management system. At the extreme, it is possible that program development, analysis, and implementation could be a protracted process that extends beyond the sunset of the pilot program authority. The extended process required for a change of this type bolsters any argument that program changes might be better handled in a more comprehensive way that addresses the sunset of the main program after 5 years of fishing.

If the Council elects to consider development of alternatives to extend the program indefinitely, the Council can address entry in a more focused manner that considers current participation levels and capitalization in the fishery and the potential for vessels and processors to enter the main program, which is currently accessible to vessels only through the acquisition of a license qualified for the main program or to a processor through the acquisition of a plant qualified for the main program.

Changing the availability of the entry level fixed gear allocation to trawl vessels to ensure more fully harvest of the TAC

Currently, any remaining portion of the entry level fixed gear allocation comes available to entry level trawl sector participants on September 1<sup>st</sup>. In the first two years of the program, the fixed gear participants harvested very little of rockfish available to them under the program. In addition, trawl participants have suggested that the September 1<sup>st</sup> opening of the fixed gear allocation for harvest by trawl vessels provides little opportunity for the harvest of the remaining allocation because of conflicts with other fisheries. In addition, availability of halibut PSC from the deepwater complex may prevent harvests until after the fourth season halibut apportionment comes available on October 1<sup>st</sup>. These factors collectively have resulted in little harvest of the portion of the rockfish TAC allocated to the fixed gear entry level fishery in the first two years of the program. To begin the process of addressing this issue, the Council has suggested that staff discuss possible revisions to the entry level fixed gear allocation and its availability to the trawl sector in this paper.

In considering possible revisions to the allocation and management of the fixed gear entry level fishery allocation, the Council should be careful to note interactions of their decisions with other decisions concerning the entry level trawl fishery management. Specifically, if the Council elects to shift to a system of exclusive allocations in the entry level trawl fishery, the current management, under which the trawl sector is generally permitted to harvest the fixed gear allocation after a specific date, may not be effective. A cleaner approach might be to reduce the allocation to the sector to a size that more closely matches the catch of the sector. In the event that the Council chooses to modify the size of the allocation, it could include provision for an increase in the allocation in the event that the sector fully (or near fully) harvested its previous year's allocation. Such a provision would allow the sector the opportunity to grow, if participation or the effectiveness of participants increases. Modifying the fixed gear allocation would allow for more effective harvest of trawl allocations, since NOAA Fisheries could make exclusive allocations to trawl sector participants prior to the season opening.

Even if the current system of limited entry management is maintained in the trawl sector, modifying the date on which trawl participants are permitted to harvest the entry level fixed gear allocation could impose greater hardship on the fixed gear sector than simply changing the allocation. Fixed gear harvests of rockfish are likely to be infringed on more as the date that the harvest of the fixed gear allocation is opened to trawl vessels is moved up. It is likely that trawl vessels could effectively harvest the entire fixed gear allocation in the mid summer (when the rockfish fishery has been historically prosecuted). If permitted, these trawl harvests could result in a closure of the fishery to both gear types shortly after the opening to trawl gear. A reduced allocation that does not become available to the trawl sector may more effectively protect fixed gear interests in the rockfish fishery. Some portion of the TAC may be stranded using this approach, but the amount stranded might be limited.

Change in halibut usage by the entry level trawl fishery

The entry level trawl fishery is dependent on halibut mortality that is generally available to trawl vessels participating in Gulf of Alaska deepwater complex fisheries. If halibut mortality is unavailable when the rockfish entry level trawl fishery opens (or when participants elect to fish), the prosecution of the fishery may be delayed. These delays can disrupt participation in other fisheries by entry level trawl vessels and processor, as well as cause delivery timing problems, if the timing of the next halibut available coincides with fishing or processing activities in other fisheries. These disruptions led the Council to suggest that

this paper include a discussion of possible options for the management of halibut in the entry level trawl fishery. Two options were suggested – an allocation of halibut mortality to the entry level trawl fishery and the exemption of the entry level trawl fishery from halibut mortality limits.

In considering whether an allocation of halibut might be appropriate for the entry level rockfish fishery, the Council should consider both the ability of NOAA Fisheries to manage the allocation and the potential for the management of that fishery to affect halibut usage and the adequacy of the allocation. Allocating halibut to a small limited access fishery could exacerbate the existing problem of managing the fishery to avoid overages. A halibut allocation might simply extend the management problem that currently exists for rockfish allocations to the halibut PSC allocation. In addition, in a limited access fishery without individual constraints on rockfish or halibut catch, it is possible that the incentive to obtain a greater share of the available rockfish could lead participants to disregard relatively high halibut bycatch rates. Unless the allocation is excessive, it is possible that full harvest of the TAC could be threatened by a halibut PSC closure.

If the Council elects to change management of the entry level trawl fishery to a share-based system (i.e., cooperatives or individual allocations), exclusive halibut PSC allocations could be made to each person receiving an annual allocation. Since each person would receive an annual allocation of rockfish and PSC, an incentive to conserve halibut PSC would exist, to the extent that the allocation could be constraining. The Council would need to consider the extent of potential halibut mortality to determine the allocation to participants in the entry level trawl fishery. The best source for assessing possible halibut mortality needs in the fishery is likely the historic halibut catch in the rockfish fishery.

Under limited access management prior to implementation of the pilot program halibut mortality in the rockfish fishery was relatively high. From 2003 to 2006, inclusive, halibut mortality per ton of primary rockfish catch ranged from 22 pounds to 36 pounds for the catcher processor sector. During the same time period, halibut mortality per ton of primary rockfish in the catcher vessel sector ranged from 26 pounds to 56 pounds. In the first year of the program, halibut mortality per ton of primary rockfish was 4.2 pounds for catcher vessel cooperatives, 8.6 pound for the catcher processor cooperative, and 12.8 pounds for the catcher processor limited access. At bycatch rates equivalent to the pre-pilot program extremes approximately 3.5 metric tons to 9 metric tons of halibut would be needed to support harvest of the 350 metric ton allocation of rockfish to the entry level trawl fishery in the first year of the program. At the lower bycatch rates observed in the first year of the program, the entry level trawl fishery would have required between two-thirds of one ton and two tons of halibut PSC to harvest its 350 ton rockfish allocation. While these average bycatch rates can be used to suggest halibut PSC allocations that may be able to support an entry level trawl fishery, cooperative and individual levels of usage should be considered, as that would be the basis of any allocations.

Based on cooperative reports, no cooperative approached full usage of its halibut allocation, with the cooperative that used the most of its halibut taking only approximately one-third of its allocation. Yet, each cooperative received approximately 37 pounds of halibut mortality for each ton of primary rockfish. Despite the overall success of cooperatives in maintaining low levels of halibut mortality, some vessels are reported to have exceeded precautionary bycatch rates set by their cooperatives to ensure adequate halibut mortality is available for the cooperative to fully harvest its rockfish and secondary species allocations. At the extreme, some vessels had halibut mortality rates similar to rates observed prior to implementation of the program.

As with all bycatch allocations, any halibut PSC allocation for the entry level trawl fishery should be set to allow full harvest of the target species allocations while creating an incentive for reduced mortality. An overly high halibut PSC allocation might create no deterrent; an overly low allocation might prevent harvest of the rockfish allocation. A difficulty that arises in the entry level trawl fishery is few vessels

participate. With only a few vessels, the entry level trawl fleet has a small base across which to distribute extraordinary high halibut bycatch trips or hauls. Most vessels in the main program received allocations of primary rockfish species greater than the entire allocation to the entry level trawl fishery. Those vessels also have the ability to form cooperatives to collectively manage halibut allocations and catches. In addition, the main program participants can engage in post-delivery transfers of allocations to cover unanticipated overages. Under the current program structure that isolates the allocation to the entry level trawl fishery, it is possible that one or more of those vessels may be unable to complete its harvests of rockfish, if the vessel has an unavoidable and unexpectedly high catch of halibut.

In the main program, unused halibut PSC is available for use in the fall deepwater complex fisheries. By making the catch available for later use, cooperatives have an incentive to conserve halibut PSC that might otherwise be dissipated. A similar approach could be used to create an incentive for halibut preservation under an entry level trawl halibut PSC allocation. Since the entry level fishery has only a few participants (and would likely receive a relatively small halibut PSC allocation), it is uncertain whether the incentive would be effective. The incentive in the main program is driven by an intercooperative agreement among all catcher vessel cooperatives, which includes penalties for exceeding specific bycatch levels. Whether similar agreements would be used in the entry level is uncertain.

An alternative to providing the entry level trawl fishery with a halibut allocation is to simply exempt the fishery from any halibut limit. Using this approach, the fishery would not be constrained by halibut, but halibut mortality would be counted against the trawl deepwater halibut limit in the Gulf. Mortality would be counted against the season in which the halibut is used (or in next subsequent season, if the current season's apportionment is fully used). Such an approach would provide entry level participants with the opportunity to harvest rockfish during the scheduled season despite halibut limitations that have applied to other fisheries.

If the limited access structure of the entry level trawl fishery is maintained, it is possible that the exemption of halibut from any limitation could lead participants racing for rockfish to show little regard halibut mortality. The mortality would affect limited access fisheries either in the current or subsequent season, but would not affect the prosecution of the entry level trawl fishery. Participants in the entry level, however, may be reluctant to exert efforts to avoid halibut mortality, if they believe that it will reduce catches of rockfish in the race for fish. For example, a vessel may be unwilling to move from an area of high halibut catch, if that move requires additional fuel usage and reduces the amount of time that the vessel can spend catching rockfish.

If the entry level fishery is managed through individual or cooperative allocations of primary rockfish, the exemption of the fishery from halibut limits may be more likely to avoid halibut catch, but the absence of a limit would still reduce the incentive for avoiding halibut. The vessel may be reluctant to incur additional fuel costs to avoid halibut, but its catch of rockfish should not be jeopardized by the move. Since the entry level trawl fishery receives a relatively small allocation of primary rockfish, the extent of any threat of excessive halibut is limited. At the highest preprogram halibut bycatch rate, the total catch of halibut by the entry level fishery would be slightly less than 9 metric tons, based on the current rockfish allocation. Although the extent of any mortality might be limited by the small allocation, the reduced incentive for avoiding halibut mortality under this approach should be considered.

## **Change in management of shortraker rockfish and rougheye rockfish for the catcher processor sector**

Members of the catcher processor sector have suggested that the current allocations of shortraker rockfish and rougheye rockfish are overly constraining. Sector members believe that the current allocations

prevent participants from realizing historic catches from the fishery. In addition, some sector members have suggested that the relatively small allocations create a disincentive for cooperative membership.

### Background

Under the program, the catcher processor sector receives an annual allocation of shortraker rockfish equal to 30.03 percent of that TAC and rougheye rockfish equal to 58.87 percent of that TAC. This allocation is divided among cooperatives with each receiving a share equal to its members' share of the total primary rockfish QS. If any eligible catcher processor sector members choose not to join a cooperative (either opting out of the program for the year or electing to fish the limited access fishery), a share of the allocations that would have gone to cooperatives with their membership is not made. Sector members that choose to fish in the limited access fishery do not receive an allocation. Instead, limited access participants are limited by a maximum retainable amount of combined shortraker rockfish and rougheye rockfish equal to two percent of catch of primary rockfish. This maximum retainable amount applies at all times and its calculation renews on each weekending date.<sup>5</sup>

During program development, the Council considered a variety of options for the allocation of shortraker rockfish and rougheye rockfish. At that time, a change was underway from management under an aggregate TAC to management under separate TACs for the two species. Stock estimates of rougheye rockfish exceeded stock estimates of shortraker rockfish, but that shortraker rockfish was a greater share of the catch under the aggregate TAC. To address any potential overexploitation of shortraker rockfish, the Council elected to establish separate TACs for the two species.

In developing the rockfish pilot program, the Council first considered allocation of shortraker rockfish and rougheye rockfish based solely on aggregate catches of the two species during the qualifying period. Each sector would then receive two allocations by applying its share of the historic aggregate catch the two species to each of the two species TACs. Data were (and are) unavailable to establish the share of each species caught from the aggregate catches during the qualifying period. Under this approach, the catcher processor sector would receive approximately 60 percent of the shortraker rockfish TAC and 60 percent of the rougheye rockfish TAC, while the catcher vessel sector would receive approximately 6 percent of each TAC. The Council also considered an option to credit only 75 percent of the catch history of the catcher processor sector in determining its allocation, effectively reducing the allocation to approximately 45 percent of the combined TACs. In considering this allocation, the Council expressed concern that relatively high share of the historic catch of these species could threaten the stocks, if other fisheries increased their catches under the limited access MRA management that governs those fisheries.<sup>6</sup>

Adopting a precautionary approach to limiting catches of the species, the Council allocated to the catcher processor sector approximately 30 percent of the shortraker rockfish TAC (approximately one-half of its historic percentage of the aggregate shortraker rockfish/rougheye rockfish TAC harvest in the qualifying years) and approximately 60 percent of the rougheye rockfish TAC to the catcher processor sector (approximately its historic percentage of the aggregate shortraker rockfish/rougheye rockfish TAC harvest). In the limited entry fishery, catcher processors are subject to a reduced aggregate shortraker rockfish/rougheye rockfish MRA of 2 percent (a percent substantially lower than the 7 percent MRA applied prior to the program). The reduced MRA is intended to protect these species and create an incentive for cooperative membership.

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<sup>5</sup> Catcher vessels participating in the program (in the limited access or cooperatives) are subject to a 2 percent MRA on shortraker rockfish and rougheye rockfish. In addition, catcher vessels are prohibited from retaining shortraker rockfish, if the sector's harvest of the species exceeds 9.72 percent of its TAC.

<sup>6</sup> In most fisheries (other than the primary rockfish fisheries) the MRA of aggregate shortraker rockfish/rougheye rockfish is 7 percent.

In the first year of the program, two catcher processor cooperatives formed. One of these cooperatives fished; the other transferred most of its allocations to catcher vessel cooperatives and a portion of its shortraker rockfish and rougheye rockfish allocation to the other catcher processor cooperative. One vessel fished in the active catcher processor cooperative and three vessels fished in the catcher processor limited access fishery. Catches were below allocations after transfers for all species (see Table 2).

**Table 2. Total catch and allocations of allocated species by catcher processors in the Gulf rockfish pilot program (2007).**

cp - alloc and catch

	Species	Number of vessels	Catch (in metric tons)	Allocation excluding transfers (in metric tons)	Percentage of allocation harvested
Cooperative*	Pacific Ocean Perch	1	1,667	1,700	98
	Northern Rockfish	1	153	284	54
	Pelagic Shelf Rockfish	1	113	141	80
	Sablefish	1	78	87	90
	Shortraker Rockfish	1	43	34	126***
	Rougheye Rockfish	1	11	117	10
	Thornyhead Rockfish	1	23	74	31
Limited Access	Pacific Ocean Perch	3	943	1,008	94
	Northern Rockfish	3	584	675	87
	Pelagic Shelf Rockfish	3	535	1,065	50

Source: Catch Accounting Data and Cooperative Reports.

Note: Excludes allocation of catcher processor cooperative that did not fish.

\*Data are not confidential because of disclosure in cooperative reports.

\*\* Withheld for confidentiality.

\*\*\* No overage occurred because of transfer of cooperative quota.

Generally, catcher processors are permitted to retain more shortraker rockfish and rougheye rockfish, if they join cooperatives (see Table 3). So, maximum retained catch by the sector would be permitted, if all catcher processors chose to join cooperatives. Yet, since discards are permitted by participants in the limited access, it is possible that total catches of shortraker rockfish and rougheye rockfish could be greater if all catcher processors chose to join the limited access than fish in cooperatives, if participants in the limited access have substantial discards. In addition, since the MRA applies to aggregate catches of shortraker rockfish and rougheye rockfish, it is possible that catches of shortraker rockfish (the species of greater biological concern) could be greater in the limited access fishery. Catches in the first year of the program were substantially below the total amount permitted.

**Table 3. Maximum permitted catches and actual catch of shortraker and rougheye rockfish in the first year of the pilot program.**

shtrkrrgheye		Catcher processor	Catcher vessels	Total
Maximum permitted catches under various co-op membership scenarios	Maximum sector shortraker allocation	106*	NA	
	Maximum sector rougheye allocation	360*	NA	
	Maximum sector catch of MRA shortraker and rougheye - aggregate	192**	204	
	Maximum retained catch of shortraker and rougheye			669
Maximum permitted catches under first year co-op memberships	Allocation of shortraker to cooperatives	60		
	Allocation of rougheye to cooperatives	203		
	Maximum MRA catch of shortraker and rougheye - aggregate	41	204	
	Maximum retained catch of shortraker and rougheye			508
Catches in the first year	Total catch of shortraker by cooperatives	44	9	
	Total catch of rougheye by cooperatives	11	10	
	Total catch of shortraker and rougheye by limited access	32		
	Total catch of shortraker and rougheye			106

Source: NMFS Catch Accounting data

Notes: MRA amounts assume that allocations of primary species are harvested in their entirety. MRAs limit only retained catch, so maximum catch under an MRA excludes potential discards. Total catch amounts include discards and retained catch.

\* Maximum allocation to cooperatives, if all catcher processors join a cooperative.

\*\* Maximum possible MRA catch, if all catcher processors join the limited access fishery.

In the first year of the program, catcher processors participated in both cooperatives and the limited access fishery. The choice of some catcher processors to participate in the limited access fishery reduced the permitted retained catch of the two species by over 150 metric tons. Yet, some catcher processors are reported to have been reluctant to join cooperatives because of the potential that the constraining shortraker rockfish and rougheye rockfish allocations would limit their ability to harvest primary species. Notwithstanding this fear, during the first year of the program, total catch of shortraker and rougheye in the limited access were approximately 10 metric tons less than the amount that could be retained under the MRA and were substantially less than would have been permitted had these catcher processors elected to participate in cooperatives. Catcher vessels in the program harvested less than 10 percent of the maximum amount permitted by its MRA.

Catches of both species under the program's system of allocations and MRAs were less than historical catches in the rockfish fishery since the qualifying period (see Table 4).<sup>7</sup> In addition, catcher processor catches in the first year of the program were substantially lower than the 60 percent historical share of the aggregate species TAC harvested by the sector during the qualifying period.

**Table 4. Total allowable catches and total catches of shortraker rockfish and rougheye rockfish in the Central Gulf rockfish fisheries (2005-2007).**

Year	Species	Total allowable catch	Catcher processor sector		Catcher vessel sector		Total	
			Catch (in metric tons)	Percent of the total allowable catch	Catch (in metric tons)	Percent of the total allowable catch	Catch (in metric tons)	Percent of the total allowable catch
2005	Shortraker rockfish	324	127	39	19	6	146	45
	Rougheye rockfish	557	48	9	9	2	57	10
2006	Shortraker rockfish	353	145	41	14	4	159	45
	Rougheye rockfish	608	5	1	30	5	35	6
2007	Shortraker rockfish	353	63	18	4	1	67	19
	Rougheye rockfish	611	19	3	6	1	25	4

Source: NMFS Catch Accounting.

<sup>7</sup> Reliable estimates of the catch of the different species are not available prior to 2005.

Also, total catches of shortraker rockfish and rougheye rockfish in all fisheries relative to their TACs do not suggest any danger of overharvest of the current TACs (see Table 5).

**Table 5. Catches and total allowable catches of shortraker rockfish and rougheye rockfish in all Central Gulf fisheries (2005 -2007).**

allfish

Year	Shortraker rockfish			Rougheye rockfish		
	Catch (in metric tons)	Total allowable catch (in metric tons)	Percent of total allowable catch harvested	Catch (in metric tons)	Total allowable catch (in metric tons)	Percent of total allowable catch harvested
2005	223	324	68.8	122	557	21.9
2006	303	353	85.8	134	608	22.0
2007	158	353	44.8	178	611	29.1

Source: NMFS Catch reports (2005-2007).

Note: Prior to 2005, shortraker rockfish and rougheye rockfish were managed using an aggregate total allowable catch.

#### Change to MRA management of shortraker rockfish and rougheye rockfish for the catcher processor sector

To address the shortfall of shortraker rockfish or rougheye rockfish faced by catcher processor cooperatives under the allocations of these species, it is suggested that the MRA management be adopted. Under MRA management, catcher processors exceeding the MRA at any point in a trip would be required to discard catches above the MRA.<sup>8</sup> While MRA management would create greater flexibility for vessels unable to limit their catches of shortraker rockfish and rougheye rockfish, it may have some undesirable effects.

MRAs can contribute to discards. As currently applied in the Gulf, an MRA requires discards of catch that exceed the prescribed level at any time. So, a vessel that catches an unexpected amount of an MRA species early in a trip may be forced to discard, even if the catch would be retainable at a later time in the trip. For valuable species, an MRA may induce a vessel to catch up to the maximum amount, knowing that overharvest of the MRA may be discarded without risk of penalty. These added discards are avoided under the current allocations, which counts all harvests against the allocation.

MRAs can also contribute to excessive harvests of a species. Since an MRA limits only retention, requiring vessels to discard above the retainable amount, they do not limit total harvest of a species. To effectively limit total catch requires a limit on catch in addition to an MRA. Typically, species subject to an MRA are also subject to limits on catch by all vessels, above which no retention is permitted. Without this additional limitation, overall catch will not be limited by regulation. For species of value that are fully utilized, establishing an MRA in a fishery prosecuted with exclusive allocations and an extended season could provide participants in the fishery with an advantage in the harvest of the MRA species. Persons able to harvest the MRA in conjunction with exclusive allocations may be under less time pressure to harvest the MRA species than persons fishing in a limited access race for fish.

If the Council elects to proceed with an action to manage catcher processor catch of shortraker rockfish and rougheye rockfish with an MRA, it could consider whether total catch of the species by catcher processors participating in the program should be limited, as is done for the catcher vessel sector. Catcher

<sup>8</sup> The Council's direction in analyzing this did not suggest a change in the MRA level, but it is believed that a change would be appropriate if the intent is to permit additional catches by the catcher processor sector.

vessels are subject to a 2 percent MRA for shortraker rockfish and rougheye rockfish combined, and are not permitted to retain shortraker rockfish, if the sector's harvests exceed 9.72 percent of the TAC. Establishing such a limit for the catcher processor sector would prevent excessive catches by the sector.

Two possible motivations for modifying management of the shortraker rockfish and rougheye rockfish for the catcher processor sector have been suggested. First, it is suggested that the current binding allocations of these species may constrain harvest of target rockfish allocations. Catch processors have suggested that relatively high catch rates of shortraker rockfish in the grounds they typically fish put them in jeopardy of fully harvesting their allocations of shortraker rockfish prior to fully harvesting their primary rockfish allocations. In 2006 under limited access management, catcher processors in the rockfish fishery caught approximately 41 percent of the shortraker TAC, substantially greater than the 30 percent allocation they receive under the rockfish pilot program. Despite this catch, approximately 15 percent of the TAC was left unharvested in that year. In the first year of the program, catcher processors harvested approximately 18 percent of the shortraker TAC, while approximately 45 percent was left unharvested. In the first year, the only active cooperative exceeded its initial allocation by 25 percent, avoiding an overage by acquiring a transfer of quota from another cooperative. Modifying management of shortraker rockfish and rougheye rockfish by establishing an MRA for these species would minimize the potential for harvests of shortraker rockfish to prevent harvest of primary rockfish. Yet, an increase in the allocation of shortraker rockfish to the sector could accomplish the same end, without increasing the incentive or potential for discards (or excessive harvests).

A second motivation for establishing MRA for management of shortraker rockfish and rougheye rockfish for catcher processors is that it would allow the sector to take an amount closer to its historic harvests. The average estimated harvest of shortraker rockfish during qualifying years was approximately 195 metric tons. In the first two years of the program, the maximum allowable harvest of shortraker rockfish by the sector under the program was approximately 100 metric tons (assuming all vessels joined a cooperative). A few factors led the Council to make this relatively small allocation. The sector took approximately 60 percent of the combined TAC of shortraker rockfish and rougheye rockfish in the qualifying years. Estimates suggest that shortraker rockfish made up a larger share of this harvest than rougheye rockfish. Yet, to protect the shortraker rockfish stock, the Council limited the allocation to the sector to approximately 30 percent of the shortraker rockfish TAC. Under the divided TAC of the two species, the shortraker rockfish TAC makes up approximately one-third of the combined TACs of the two species. This TAC change, together with the reduced allocation of shortraker rockfish to protect the stock, led to a substantial reduction in the permitted harvests of that species by catcher processors participating in rockfish cooperatives.

If the Council's concern is that the current allocation overly constrains the catcher processor sector from maintaining historic harvests, it could address this shortcoming by increasing the allocation to the sector. This would allow the sector to increase its catch to an amount closer to its historic catch level, but without creating an incentive for discards or overharvest, which might arise under MRA management. In addition, an allocation will allow the Council to more precisely allocate catch of shortraker rockfish and rougheye rockfish to the sector without less potential to unintentionally disadvantage participants in other fisheries.

#### **Change in the basis species for determining MRAs**

Under the current structure of the rockfish pilot program, only primary rockfish species are counted as basis species for determining maximum retainable amount of species that are not allocated. The Council has asked staff to discuss the potential for adding catches of species other than primary rockfish to the basis species for determining MRAs under the program.

### Background

Under the program, cooperatives receive exclusive allocations of the three primary rockfish species and as many as four secondary species. These secondary allocations may be harvested at the discretion of the cooperative, including as separate targeted trips. In the first year of the program, catcher vessel cooperatives made trips targeting two secondary species Pacific cod and sablefish (see Table 6). During these trips, little primary rockfish were harvested. By limiting their catch of rockfish in these trips, harvesters are able to both reduce costs of traveling to the different grounds and increase quality of catch by limiting the extent of mixing of Pacific cod and sablefish with rockfish, the spines of which can damage more fragile fish.

**Table 6. Rockfish pilot program catcher vessel trips and catch targeting species other than rockfish (2007).**

cv targeting					
Target	Vessels with at least one trip in the target	Total trips in the target	Species caught in the target	Catch (in metric tons)	Percent of total catch of the species
Pacific cod	10	11	Pacific Ocean Perch	5.2	0.1
			Northern Rockfish	0.9	0.0
			Pelagic Shelf Rockfish	0.4	0.0
			<b>Pacific Cod</b>	<b>207.1</b>	<b>74.7</b>
			Sablefish	30.5	6.6
Sablefish	14	16	Pacific Ocean Perch	16.1	0.4
			Northern Rockfish	0.0	0.0
			Pelagic Shelf Rockfish	0.9	0.1
			Pacific Cod	15.7	5.7
			<b>Sablefish</b>	<b>229.1</b>	<b>49.2</b>

Source: NMFS Catch Accounting Data.

During trips that do not target rockfish, MRAs for species that are not allocated are determined based on catch of primary rockfish only. So, vessels with little harvest of primary rockfish are very limited in their retention of unallocated species (including shortraker rockfish and rougheye rockfish). While some discards in the fishery have been voluntary, others are likely required by MRA limits. This influence is suggested by the sum of the differences in percent of catches discarded in rockfish targeted trips compared to discards in trips targeting other species. Arrowtooth flounder discards, which are relatively large percentages and large amounts of catch when compared to other species, are an exception. These high discards are likely a result of the relatively high biomass and low value of the species. Differences are most pronounced for flatfish species and rougheye rockfish. Although in most cases, the discards are relatively small amounts of fish, requiring discards contributes to waste and imposes an unnecessary sorting burden on crews.

**Table 7. Preliminary catcher vessel species catch (in metric tons) by target in the rockfish pilot program (2007).**  
cvctchdiscbytrgt

Species	Target	Discarded	Retained	Total	Percent discarded
Atka mackerel	Rockfish	0.1	0.6	0.7	8.2
Arrowtooth flounder	Rockfish	132.0	46.1	178.1	74.1
	Other	196.9	17.7	214.7	91.7
Big skate	Rockfish	*	*	0.2	*
	Other	2.6	0.0	2.6	100.0
Deepwater flatfish	Rockfish	4.5	12.8	17.3	26.0
	Other	15.9	4.6	20.5	77.6
Flathead sole	Rockfish	0.9	5.9	6.8	12.8
	Other	2.8	2.4	5.1	53.7
Longnose skate	Rockfish	1.0	1.1	2.1	46.6
	Other	*	*	6.5	*
Other species	Rockfish	6.7	1.7	8.5	79.4
	Other	2.5	0.1	2.6	96.0
Pollock	Rockfish	1.5	19.9	21.4	6.9
	Other	2.7	0.5	3.3	83.3
Rex sole	Rockfish	1.3	6.0	7.3	17.8
	Other	7.9	1.5	9.4	84.0
Rougheye rockfish	Rockfish	0.3	4.8	5.1	5.0
	Other	3.7	1.1	4.8	77.5
Other rockfish	Rockfish	2.2	37.2	39.4	5.5
	Other	*	*	0.7	*
Shallow water flatfish	Rockfish	0.2	2.1	2.3	10.6
	Other	3.4	2.0	5.3	63.0
Shortraker rockfish	Rockfish	*	*	4.4	*
	Other	*	*	4.9	*
Thornyhead rockfish	Rockfish	1.4	19.6	21.0	6.7
	Other	2.2	26.6	28.8	7.6
Other skate	Rockfish	3.1	1.2	4.3	71.6
	Other	1.1	0.1	1.1	94.8

Source: NMFS Catch Accounting.

\* withheld for confidentiality.

#### Change to using all allocated species as basis species for calculating MRAs

Since vessels fishing under the program have trips targeting species other than targeted rockfish, it has been suggested that all allocated species be used as a basis for calculating MRAs.<sup>9</sup> This expansion would allow additional catches of MRA species, but would also prevent discards of otherwise valuable, retainable fish. The effects of a change would be limited by the extent of the allocations of secondary species under the program.

The number of additional pounds of unallocated species that might be harvested increases substantially when all allocated species are included as basis species (see Table 8). Yet, Comparing potential increases in maximum retainable amounts that would arise from increasing the basis species with the catch of species managed by MRAs suggests that in the absence of substantial changes in targeting behavior, little effect on total catches of MRA limited species might arise by using all allocated species as basis species, instead of exclusively primary rockfish.

<sup>9</sup> Secondary species are allocated only to cooperatives. Limited access catches of all secondary species are managed by MRAs, so the limited access would not be affected by this action.

**Table 8. Maximum retainable amounts by sector based on allocations of primary rockfish species and secondary species allocations (2008).**

mrabaschng

Incidental catch species	MRA as a percentage of basis species	Catcher vessel sector			
		Allocation of primary rockfish	MRA in tons based on rockfish allocation	Maximum cooperative allocation of secondary species	MRA in tons based on secondary species allocations
Shortraker/rougheye	2		133		21
Pollock	20		1,325		207
Deep water flatfish	20		1,325		207
Rex sole	20		1,325		207
Flathead sole	20		1,325		207
Shallow water flatfish	20		1,325		207
Arrowtooth flounder	35	6,625	2,319	1,034	362
Other rockfish	15		994		155
Atka mackerel	20		1,325		207
Aggregated forage fish	2		133		21
Skates	20		1,325		207
Other species	20		1,325		207
Pacific cod	4		260		41
Pollock	20		1,301		204
Deep water flatfish	20		1,301		204
Rex sole	20		1,301		204
Flathead sole	20		1,301		204
Shallow water flatfish	20		1,301		204
Arrowtooth flounder	35	6,503	2,276	1,019	357
Other rockfish	15		975		153
Atka mackerel	20		1,301		204
Aggregated forage fish	2		130		20
Skates	20		1,301		204
Other species	20		1,301		204

Source: NMFS rockfish program allocations (2008).

## Conclusion

In requesting this paper, the Council suggested its intention proceed with an amendment package to address certain issues that have arisen in the first year of the rockfish pilot program. While amendments may be useful to address those program deficiencies, the Council should be aware that an extensive package will require substantial program development, analysis, and regulation preparation, all of which will delay implementation. Given that the pilot program is scheduled to expire at the end of the 2011 season, the Council should consider whether it is more effective to develop an action to extend the life of the program that incorporates desired changes. If the Council elects to take action to extend the life of the program, it could consider a more expansive scoping process to ensure that it address all of its concerns with the program. If the Council elects to proceed with an amendment to the pilot program that does not extend the life of the program, it can proceed with the development of a purpose and need statement and the identification of alternatives for analysis at this time, to begin that process.