

CHAPTER 2 DESCRIPTION OF THE ALTERNATIVES, INCLUDING THE PREFERRED ALTERNATIVE

This chapter describes the alternatives for implementing a trawl rationalization program. There were three management approaches that the Council considered in developing its action alternatives: (1) vessel cumulative landing limits, (2) IFQs, and (3) cooperatives (co-ops). From these management approaches, four basic alternatives were developed for analysis. Most of the alternatives are a hybrid of the IFQ and co-op management approaches. These management approaches are broadly described below and are described in more detail within the alternatives and in Appendices A and B.

Vessel Cumulative Landing Limits Management Approach: The groundfish LE trawl fishery is currently managed with vessel cumulative landing limits (i.e., trip limits) and season closures. The vessel cumulative landing limits are used mainly for the nonwhiting segment of the trawl fishery and are generally structured around six, two-month cumulative periods with the first period being January-February, etc. While the two-month limits are used to maintain a year-round fishery, however, if a harvest limit for the trawl fishery is exceeded, the entire fishery may face increased area restrictions or closure. Cumulative landing limits are set based on catch projections derived from a bycatch model that incorporates various data from previous years. Season closure is used as the main tool for controlling harvest in the whiting fishery.

IFQ Management Approach: IFQs are a form of LAP. They grant an entity the privilege to catch a specified portion of the LE trawl fishery's allocation of groundfish. If an individual vessel's quota, or harvest limit, is exceeded, that vessel is accountable. All catch would be monitored and independently verified, eliminating the need for catch projection based on bycatch modeling. Near real time catch data would be available to manage the fishery.

Cooperative Management Approach: Co-ops are another form of LAP. They are a system by which groups pool their resources together and act in a cooperative manner. Generally, the most efficient vessels are used to harvest the pooled resource. In the current groundfish fishery, the Pacific whiting catcher-processor sector has organized itself as a co-op (vessels in the mothership and shoreside whiting sectors operate independently, competing with one another in the seasonal fishery). All catch would be monitored and independently verified. Real time catch data would be available to manage the fishery.

From these management approaches, four basic alternatives were considered for implementing the trawl rationalization program. These are as follows:

- Alternative 1: Status quo management (no action alternative)
- Alternative 2: IFQs for all groundfish trawl sectors
- Alternative 3: IFQs for the nonwhiting sector and co-ops for all whiting sectors
- Alternative 4: IFQs for a single shore-based sector and co-ops for the whiting at-sea sectors

Implementing trawl rationalization—whether through IFQ or cooperatives—requires the specification of numerous program elements (features). In many cases, there are different ways to specify these elements. These different approaches are structured as options (choices to be made in structuring the program), where appropriate. Variations on some alternatives were developed to contrast key program features, which are sub-alternatives denoted by a letter suffix. These are Alternatives 2a, 2b, and 2c and Alternatives 4a and 4b. Alternatives 1 and 3 do not contain sub-alternatives. Alternative 4b is the preferred alternative (Section 2.4). With these variations included, six alternatives are evaluated in Chapter 4 of this EIS. The four basic alternatives are described below in Sections 2.1 through 2.4. Where sub-alternatives were developed, differences between them are noted in the description of the four basic alternatives. Table 2-1 provides an overview of the action alternatives and their program elements.

The trawl rationalization program developed by the Council is complex, with a large number of specific program elements. For example, in developing the IFQ component of the program, the Council considered 26 different program elements. A similar number of program elements were considered for whiting co-ops. Many of these elements do not vary across the alternatives. The analysis in Chapter 4 of this EIS looks at the overall impact of alternative programs, while Appendix A and Appendix B evaluate the program elements considered by the Council for an IFQ and whiting cooperative program, respectively. Appendix D is a detailed, stand-alone description of the complete trawl rationalization program recommended by the Council in the preferred alternative (Alternative 4b). Section 2.5 describes the alternatives considered but rejected from further analysis, including permit stacking and extended cumulative landing limits.

Table 2-1. Summary of alternatives by program elements.

ELEMENT	ALTERNATIVES						
	Alt. 1 (status quo/no action)	Alt. 2a	Alt. 2b	Alt. 2c	Alt. 3	Alt. 4a	Alt. 4b (Preferred Alt.)
Catch Control Tool	<input type="checkbox"/> 2mo cum trip limits for NonWhgt Trawl <input type="checkbox"/> Seasonal mngmnt for Whgt Trawl	IFQ for all Trawl Sectors			<input type="checkbox"/> IFQ for Nonwhiting Trawl <input type="checkbox"/> Co-ops for Whiting Trawl	<input type="checkbox"/> IFQ for SS Trawl	<input type="checkbox"/> IFQ for SS Trawl (trip limits for nonIFQ species) Co-ops for At-Sea Trawl
Initial Allocation and Qualification	None	Based on permit landing history			<input type="checkbox"/> Equal sharing of buyback history in Nonwhiting (all groundfish) <input type="checkbox"/> Rebuilding stocks allocated on a bycatch rate <input type="checkbox"/> CV co-op endorsement & allocation 97-03	<input type="checkbox"/> Equal sharing of buyback history in SS <input type="checkbox"/> Rebuilding stocks allocated on a bycatch rate (all groundfish) <input type="checkbox"/> CV (MS) endorsement & allocation 97-03	<input type="checkbox"/> Equal sharing of buyback history in nonCP sectors (all nonoverfished spp. & canary) <input type="checkbox"/> Rebuilding stocks and halibut alloc. on bycatch rate/pro rata <input type="checkbox"/> CV (MS) end. & alloc. based on 94-03 <input type="checkbox"/> MS permit: at least 1,000 mt in 2 years from 97-03
Accumulation Limits	None	<input type="checkbox"/> SS nonwhiting groundfish: 3% control & 6% per vessel <input type="checkbox"/> SS whiting: 12% control & 25% per vessel <input type="checkbox"/> MS: 25% ctrl & 50% per vsl <input type="checkbox"/> CP: 60% ctrl & 75% per vessel			<input type="checkbox"/> SS grnd: 1.5% ctrl & 3% per vsl <input type="checkbox"/> CV(SS) whiting: 15% <input type="checkbox"/> MS: 20% <input type="checkbox"/> CV (MS): 10% <input type="checkbox"/> CP: none	<input type="checkbox"/> SS grnd: 2.2% ctrl & 4.4% per vsl <input type="checkbox"/> SS whiting: 25% ctrl & 12% per vessel <input type="checkbox"/> MS: 30% <input type="checkbox"/> CV (MS): 15%	<input type="checkbox"/> SS grnd: 2.7% ctrl & 3.2% per vessel <input type="checkbox"/> SS whiting: 10% ctrl & 15% per vessel <input type="checkbox"/> MS: Cannot process more than 45% <input type="checkbox"/> CV (MS): 20% own, 30% usage <input type="checkbox"/> CP: none
Grandfather clause	None	Grandfather clause exists			None	Grandfather clause exists	None, but entities must divest overage QSSs at the end of year 4
Processor Initial Allocation / Co-op Affiliations	None	None			<input type="checkbox"/> 100% Proc.affiliations in MS and SS whiting sectors. <input type="checkbox"/> 25% SS processor alloc of SS groundfish	<input type="checkbox"/> 50% Processor affiliation in MS sector <input type="checkbox"/> 50% SS proc. alloc. of SS whiting <input type="checkbox"/> No proc. alloc. of SS grndfsh	<input type="checkbox"/> Annual mothership declaration requirement <input type="checkbox"/> 20% SS processor allocation of SS whiting <input type="checkbox"/> No processor allocation of nonwhiting
Species Covered	All groundfish	All groundfish and Pacific halibut			<input type="checkbox"/> All groundfish in nonwhiting sector <input type="checkbox"/> Select species at sea. Bycatch pools are shared by all whgt sctrs	<input type="checkbox"/> All groundfish in SS sector Select species at sea. At-sea sector bycatch is allocated at co-op level	<input type="checkbox"/> Select groundfish species and Pacific halibut in shoreside sectors.
Number of Trawl Sectors	Four	Three			Four	Three	
Adaptive Mngmnt	None	None	10% A.M. set aside	None	10% A.M. set aside for all sectors	10% A.M. set aside for SS	10% A.M. set aside for SS nonwhiting species
Area Mgmt	TL vary by area; main split at 40 10 N lat	None			Species split at 40 10 N lat	Species split at 40 10 N lat	None
Carry-over	None	Carry-over exists			None	Carry-over exists	Carry-over exists. Allowance decreases if OY declines

- 1) For analytical purposes, the adaptive management provision will be assumed to be used to A) mitigate against the effects of the program on adversely impacted communities, B) provide incentives to use habitat and bycatch friendly gear, and C) to mitigate against adverse effects of the program on processors (this is specific to Alternative 2b). For Alternative 4b, the Council's goals and objectives specified for AMP are used.
- 2) Under the Council's preferred Alternative (Alternative 4b), control limits do not apply to QPs.
- 3) Assumptions regarding the sector level allocations of groundfish species and Pacific halibut differ between Alternative 4b and other alternatives. Alternative 4b uses the Council's Final Preferred Alternative for Intersector Allocation.
- 4) The catcher processor sector has independently developed and operated under a private co-op structure within the season structure provided by Federal regulations.

2.1 Alternative 1 - Status Quo (No Action)

Under Alternative 1, status quo/no action, most of the elements of the current management regime for the groundfish LE trawl fishery would remain in place. The Groundfish FMP describes the management

framework for the groundfish trawl fishery. The groundfish LE trawl fishery includes a nonwhiting trawl fishery (shore-based) and a whiting fishery (shore-based, mothership, and catcher-processor sectors).

Every two years, the Council establishes harvest limits (OYs) for various species or groups of species.³¹ OYs represent an annual quantity of fish that the groundfish fishery as a whole may catch. A few species, such as Pacific whiting and sablefish, have fixed trawl allocations. The FMP defines other allocations between different gears, which in addition to the whiting and nonwhiting trawl fisheries include LE fixed-gear, the open access sector, and recreational fisheries in each state. Other allocations are determined through the biennial process to specify harvest limits (ABCs, OYs, and harvest guidelines [HGs],) and management measures (i.e., specifications and management measures process). The need to rebuild the seven currently overfished rockfish species means that the OYs for these species are relatively low compared to target species OYs. Due to the multi-species nature of the fishery, these low OYs affect all aspects of groundfish management.

The following sections describe the main elements of Alternative 1, as summarized in Table 2-1.

2.1.1 Catch Control Tool

Nonwhiting Trawl Fishery

Under status quo (Alternative 1), two-month, cumulative trip limit (landing limit) periods are the primary catch control tool. Other catch control tools used include the following:

- Gear restrictions focused on discouraging or prohibiting gear that may be used in rocky habitat, where some overfished species occur. The use of bycatch-reducing trawl nets has also been required in some areas.
- Rockfish conservation areas. Closed areas were first implemented in 2003 to keep vessels away from depth ranges where overfished species are more abundant. These closed areas, called RCAs, are a coastwide feature of management.
- EFH conservation areas. These are a set of closed areas to protect bottom habitat from the adverse effects of fishing gear, including trawl gear.

For the nonwhiting trawl fishery, catches resulting from a set of proposed cumulative landing limits (i.e., trip limits) can be projected, indicating the proportion of the OY expected to be taken by the fishery and the amount available to other fisheries. During the season, if projected catches diverge from generally agreed fishing opportunity for a fishery (an implicit allocation target), the proposed trawl cumulative landing limits (or those established for other fisheries) can be adjusted until the projections are in line with expectations.

OYs for some overfished species—in the case of the trawl fishery, particularly canary rockfish on the continental shelf and darkblotched rockfish on the slope—impose the greatest constraint, translated into a variety of management measures that indirectly limit mortality on the constraining stocks.

Catch restrictions based on cumulative landing limits are the primary measures set for the trawl fisheries in the biennial specifications process. The boundaries of closed areas—the RCAs or GCAs—are also often adjusted as part of the biennial process. Although trawl gear restrictions, principally intended to keep trawlers out of rocky habitat (where several of the overfished species are found), are an important part of the management process, these requirements are much less frequently modified. In addition to restrictions on the size of trawl net footropes intended for this purpose, selective flatfish trawl (SFT) gear,

³¹ Under new rules in the MSA, the method for determining these harvest limits may change, and they may be referred to as annual catch limits (ACLs) by the time the trawl rationalization program is implemented.

which has shown a lower incidental catch rate for some groundfish, including some overfished species, is required shoreward of the trawl RCA north of Cape Mendocino, California.

Other measures affecting the nonwhiting trawl fishery are established in permanent regulations and are not modified through biennial or inseason action. Important among these are various measures implemented in 2006 and intended to reduce adverse impacts to EFH. These include gear restrictions and prohibitions and additional areas closed to trawl gear.

Whiting Trawl Fishery

Under status quo, all three commercial sectors of the whiting fishery (shore-based, mothership, and catcher-processor sectors) would continue to be managed under a primary season structure where vessels harvest whiting until the sector allocation is reached, and the fishery is closed. Incidental groundfish taken in the whiting fishery would continue to be managed under cumulative trip limits. To allow each sector of the whiting industry to have the opportunity to harvest its share of the whiting OY, the nontribal commercial fishery is managed with sector-specific bycatch limits for certain overfished species. To date, bycatch limits have been established for darkblotched, canary, and widow rockfish. Concern that bycatch in one sector would result in the closure of a different sector of the fishery led the Council to recommend that sector-specific bycatch limits be implemented as part of the 2009-10 Harvest Specifications and Management Measures, rather than a single bycatch limit for all commercial sectors.

Regulations provide for the automatic closure of the commercial (nontribal) portion of the whiting fishery, upon attainment of a bycatch limit. If a sector-specific bycatch limit is reached or is projected to be reached, the Pacific whiting fishery for that sector will be closed, regardless of whether the Pacific whiting allocation has been achieved.

Incidental take of endangered or threatened salmon runs is another concern for the Pacific whiting fishery. Chinook is the salmon species most likely to be affected because of the spatial/temporal overlap between the Pacific whiting fishery and the distribution of Chinook salmon such that it could result in incidental take of listed salmon. The season start dates are, in part, meant to limit targeting on whiting fishing when listed Chinook salmon are most likely to be taken incidentally. NMFS also has the option of closing inshore areas to fishing if too many salmon are caught.

2.1.2 Initial Allocation and Qualification

Measures to control capacity—such as the license limitation and vessel buyback programs—are another important permanent feature of the current groundfish trawl fishery management framework. A Pacific Coast groundfish LE permit with a trawl endorsement is required to participate in the nonwhiting trawl fishery, and participants deliver their catch to shore-based processors.

A Pacific Coast groundfish LE permit with a trawl endorsement is required to participate in the whiting fishery. Since Amendment 15 was implemented in 2008, vessels are also required to have a Pacific whiting vessel license specific to the sector in which they participate. Requirements for obtaining a Pacific whiting vessel license in the nontribal sectors were as follows: catcher vessels in the whiting shore-based fishery were required to have made sector-specific whiting landings in any one calendar year from January 1, 1994, through January 1, 2007; vessels participating in either the catcher-processor or mothership sector were required to have either caught and processed whiting (catcher-processor sector,) caught and delivered whiting (catcher vessels in mothership sector,) or processed Pacific whiting (motherships) in any one calendar year from January 1, 1997 through January 1, 2007. This was the first participation requirement for motherships, which, unlike catcher vessels, have not needed a groundfish LE permit registered to them. Amendment 15 is intended to serve as an interim measure to limit potential

participation in the whiting fishery within the U.S. west coast EEZ until implementation of a trawl rationalization program under Amendment 20 to the Groundfish FMP.

The shore-based whiting sector participants who want to participate in the maximized retention program also need an exempted fishing permit (EFP) to participate. The EFP specifies the terms and conditions of catch retention and monitoring. Pacific whiting first receivers intending to accept deliveries of EFP catch also have to obtain an EFP that specifies terms and condition of sorting, catch accounting, and monitoring.

2.1.3 Accumulation Limits and Grandfather Clause

There are no accumulation limits or grandfather clause under status quo management (Alternative 1).

2.1.4 Initial Allocation to Processors

There is no initial allocation to processors under status quo management (Alternative 1).

2.1.5 Species Covered

Alternative 1 covers all groundfish species managed under two-month cumulative trip limits. For the LE trawl fishery, these species are listed in the trip limit tables codified in regulation at 50 CFR part 660, subpart G, appendix Tables 3 (north and south).

2.1.6 Number of Sectors

The groundfish trawl fishery is divided into a nonwhiting and whiting fishery. The whiting trawl fishery is divided into three sectors: the shore-based sector, the mothership sector (including motherships and catcher vessels), and the catcher-processor sector.

2.1.7 Adaptive Management

There is no explicit adaptive management provision under status quo management (Alternative 1). On a biennial basis, the Council adapts regulations to current OYs, and it makes adjustments inseason to accommodate unexpected harvest rates. Other adaptive actions are taken up as either regulatory or FMP amendments.

2.1.8 Area Management (Latitudinal)

Under Alternative 1 (status quo/no action), the two-month cumulative trip limits for groundfish species vary by gear and by area for the nonwhiting fishery. The two-month cumulative trip limits, displayed through the groundfish biennial harvest specifications process in trip limit tables, are generally split by area to match the ABC/OYs for those species. The main area designation is at 40° 10' N. latitude.

2.1.9 Carryover of Unused QPs between Consecutive Years

There is no carry-over provision under status quo management (Alternative 1). Regardless of each year's harvest level, the fishery starts the subsequent year with a new OY (there are no adjustments to carry overages or underages from one year to the next). Over-harvest and under-harvest are accounted for through the effects on the status of the stocks, as reflected in stock assessment documents.

2.1.10 Tracking and Monitoring

Nonwhiting trawl fishery

Cumulative landing limits have been used to manage the trawl fishery since 1996. Landing limits were originally implemented on a per-trip basis in the 1980s. Cumulative landing limits worked reasonably well until the need to rebuild overfished stocks became a central concern of the management process. Managing by landings alone then became much less effective because the low landing limits (or no retention rules) established for these stocks led to unacceptable levels of unmonitored bycatch. To better estimate total catch, NMFS implemented the West Coast Groundfish Observer Program (WCGOP) in August 2001. The WCGOP collects data applied to derive catch ratios of nontarget species that are used to model bycatch. Using observer, fish ticket, and logbook data, the fishery is modeled to derive estimates of total catch by species. The overall estimates of total catch were much improved over the previously used bycatch ratio, which had been derived from a scientific study. The current WCGOP coverage plan identifies the monitoring target for the nonwhiting trawl fishery as 20 percent of the catch as a proportion of total landings

Although the WCGOP has substantially improved monitoring of the nonwhiting trawl fishery, the program uses partial coverage by observers to provide data on total catch by species over the course of a full year. As a result, there is a considerable lag time in the delivery to managers of catch estimates based on WCGOP observations because the program did not have the necessary observer coverage for real time fishery management of the entire groundfish fishery. Currently, observer reports, which contain bycatch rates that can be used to project total catch mortality, are on an eight-month lag. Due to the delayed availability of fish ticket and logbook data and the time needed to process observer data, the final analysis of estimated total catch by species, which gives a retrospective picture of how the fishery performed and is used to project future catch (or the effectiveness of management measures in meeting targets), is typically not finalized until well over one year after the fishing year has ended.

Whiting trawl fishery

The whiting fishery has a higher level of monitoring than the nonwhiting trawl fisheries, which would be maintained under status quo. The At-Sea Hake Observer Program (whiting mothership and catcher-processor sectors) is a seasonal program where the operational costs are shared by NMFS and the vessel owners. Since 1991, the domestic at-sea Pacific whiting processors (motherships and catcher-processors) have carried third-party observers on all processing vessels. Third-party observers are certified by NMFS to sample the catch and provide data that is used to estimate total landed catch and discards, monitor the attainment of annual groundfish allocations, estimate catch rates of prohibited species (salmon, halibut, and Dungeness crab), and assess stock conditions. Mandatory observer coverage requirements were codified in 2004 (69 FR 31751; June 7, 2004). From 1992 to July, 2004, the motherships voluntarily carried observers. Prior to 2000, most motherships each carried one observer, while catcher-processors carried two for monitoring their self-developed voluntary co-op. Since 2000, the motherships have, for the most part, carried two observers, too. Having two observers allows all or almost all hauls to be sampled and increases the accuracy of data used to monitor fishery allocations and estimate incidental catch. To date, catcher vessels in the mothership sector have not been required to have onboard monitoring, nor have they voluntarily been monitored.

Since 2007, whiting shore-based sector vessels fishing under EFPs have been required to pay directly to a NMFS-specified provider for electronic monitoring system (EMS) services as no Federal funding has been available to provide for EMS coverage. EMS is a video-based tool used to verify full retention of catch. EMS systems consist of two or more closed circuit television cameras, global positioning systems

(GPS), hydraulic and winch sensors, and on-board data storage. From an EMS pilot study, it was determined that EMS could be used accurately to identify the time and location of discard events. In 2008, NMFS began transitioning the whiting shore-based fishery from a maximized retention and monitoring program conducted under a state-run EFP to a Federal regulatory program. In doing this, NMFS chose to manage the 2008 and 2009 Pacific whiting shore-based fishery maximized retention and monitoring program under EFPs. The EFPs incorporated provisions that NMFS anticipates as being necessary in regulations implementing a maximized retention and monitoring program for the Pacific whiting shoreside vessels, including EMS coverage requirements, EMS equipment specifications, and EMS provider certification requirements.

Pacific whiting first receivers are required to have an EFP to process unsorted whiting catch. The EFP would continue to require first receivers to procure third-party catch monitors for fish ticket verification. These individuals would be trained by NMFS or to NMFS specifications. In 2009, the Council recommended that the catch monitor coverage level be increased to full coverage of all deliveries for monitoring sector-specific bycatch limits. With full coverage of all deliveries, a catch monitor must be present throughout the offloading, sorting, and weighing of each Pacific whiting delivery. With full coverage, the number of individual catch monitors per facility would vary depending on the hours of operation and the number of Pacific whiting deliveries received each day.

First receivers would continue to be required to submit federal electronic fish tickets. Electronic fish ticket requirements support a real-time inseason data system (i.e., Microsoft Access version 2003 or later or Pacific States Marine Fisheries Commission [PSMFC] software is used). Electronic fish ticket software would continue to be provided by NMFS or PSMFC at no cost.

The trawl fleet has been required to carry satellite VMS units since 2004. These units provide hourly position reports on trawl vessels and are used to ensure compliance with area restrictions.

2.1.11 Gear Conversion

There is no provision for gear conversion under status quo management (Alternative 1). Groundfish LE permits can be endorsed for trawl, longline, or pot gear, and a limited number of permits are dual-endorsed for more than one gear type. If a fisherman wants to switch to another gear, he would have to obtain (buy or lease) and register a LE permit with an endorsement for that gear to his vessel. There are frequency and vessels size restrictions on registering and transferring LE permits.

2.2 Alternative 2 - IFQs for all Groundfish Trawl Sectors

This section describes Alternative 2, IFQs for all groundfish trawl sectors (whiting and nonwhiting, shore-based and at-sea). Three sub-alternatives are evaluated under this Alternative (Alternatives 2a, 2b, and 2c) to compare and contrast certain key elements of the IFQ program. As noted above, Appendix A provides further detail on the elements and options the Council considered for an IFQ program.

This alternative would modify the status quo by establishing an IFQ program for all groundfish trawl sectors, including the nonwhiting and whiting (at-sea and shore-based) fisheries. Alternative 2 is market-centric with a high level of individuality and individual accountability. Alternative 2 is intended to illustrate the effect of market incentives on the program. Illustrating the effect of the market without special provisions limiting market influence serves as a benchmark to help inform other decisions, such as whether to include provisions to hedge against market influence. While many status quo management tools would remain in place under this alternative, the significant difference would be in the way catch is allocated and tabulated. Most cumulative landing limits and, for whiting, season closures would no

longer be used. Other measures, such as RCA boundaries, may be adjusted as experience is gained with the IFQ program.

Alternative 2 focuses on market outcomes to determine the distribution of catch among vessels and timing of harvest by issuing Qs to entities and by requiring that all groundfish species and Pacific halibut³² be covered with Qs. This means that market incentives apply to all groundfish catch and Pacific halibut. If species were not covered by Qs, the market would not have an effect on the distribution and timing of catch, because they would not be directly managed by the rationalization system, which by definition is market-based. Issuing Qs (instead of establishing co-ops) is intended to isolate the effect of the market to individuals by holding them directly accountable for their own catch, through regulatory mechanisms. Co-ops may result in a slightly different outcome because of their collective, community nature (individuals are accountable to the co-ops). This alternative also focuses on market outcomes by establishing three trawl sectors (versus four), allowing more market influence over the harvest strategies of fishing entities for the shoreside fishery. A carry-over is included to provide flexibility in making harvesting choices across years, consistent with a market-driven approach. Accumulation limits are set at the high end of the range specified in the alternatives, and there is also a grandfather clause. This alternative would allow more consolidation in the fishery than other alternatives.

The focus on individuality in Alternative 2 is accomplished by issuing Qs (versus co-ops) for all sectors of the fishery. This creates a more individualistic perspective based on the notion that IFQ tends to make participants focus on their personal perspective, whereas participants in a harvest co-op act within a type of community.

Differences between Alternatives 2a, 2b, and 2c

Alternatives 2a, 2b, and 2c compare and contrast two key elements of the IFQ program, processor initial allocations and adaptive management; both are methods for potentially responding to processor concerns. One method is to make an initial allocation of Qs to processors. The other method is to provide the opportunity to use an adaptive management system to assist processors that are adversely impacted by rationalization. These two mechanisms have substantially different philosophies—and presumably impacts—that are explored in the analysis in Chapter 4. For the processor initial allocations (Section 2.2.4 below), alternatives 2a and 2b use harvester-only allocations to illustrate the effect of the market on the program while disentangling the harvester and processor initial allocation issue and the effects on the program caused by splitting the initial allocation between harvesters and processors. Alternatives 2a and 2b allocate 100 percent to harvesters to better isolate the influence of market incentives on the program. Alternative 2c contrasts alternatives 2a and 2b by allocating processors 25 percent of the nonwhiting groundfish and 50 percent of the whiting Qs to shore-based and mothership processors. For adaptive management (Section 2.2.7 below), alternatives 2a and 2c do not include an AMP because such a provision would be designed to directly influence, or modify, outcomes that are driven by market incentives. Alternative 2b contrasts alternatives 2a and 2c by setting aside 10 percent of the annual trawl allocation for adaptive management.

The following sections describe the main elements of Alternative 2 (including Alternatives 2a, 2b, and 2c), as summarized in Table 2-1.

³² Pacific halibut would be covered by an individual bycatch quota (IBQ) rather than IFQ. A halibut IBQ would be created and required to cover the incidental catch of Pacific halibut in the groundfish trawl fishery. Under an IBQ program, retention would not be allowed.

2.2.1 Catch Control Tool

Under Alternative 2, all groundfish trawl sectors (both whiting and nonwhiting) would be managed with IFQs, which would replace the current two-month cumulative trip limit periods in the nonwhiting fishery and season/quota-based management in the whiting fishery as the primary harvest control tool.

2.2.2 Initial Allocation and Qualification

Alternative 2 would initially allocate IFQ as Qs to fishery participants based mainly on their historic involvement in the fishery. There are different levels of initial allocation in a quota fishery. First, the Council considered which groups should be included in the initial allocation of Qs, and the proportional split among the groups. Options ranged from allocating 100 percent of Qs to permit owners in the nonwhiting trawl fishery and whiting trawl sectors (Alternatives 2a and 2b) to allocating 75 percent to permit owners and 25 percent to processors for the nonwhiting trawl fishery, to allocating 50 percent to permit owners and 50 percent to processors for the whiting sector (Alternative 2c) (processor initial allocations are described in Section 2.2.4 below). There are additional options that would allocate 10 percent of the annual trawl allocation for an AMP (Alternative 2b) (described in Section 2.2.7 below).

Second, the Council considered specific allocation formulas to determine the amount of Qs each eligible entity would receive. These calculations are based on the delivery history associated with a vessel permit or processing company over a set number of years for both target species and nontarget groundfish species, including overfished species. Alternative 2 does not include an equal distribution of buyback history, which is included in the initial allocation formulas for alternatives 3 and 4. Additionally, as explained above, fleet allocations or bycatch limits (for widow rockfish, canary rockfish, darkblotched rockfish, and Pacific ocean perch) could be used instead of IFQs to manage bycatch species in the whiting fishery. If this option is chosen, only whiting Qs would be allocated.

At the start of the program, NMFS would determine who is eligible to own Qs and how much their initial allocation would be.³³ Qs would be initially allocated to fishery participants based on catch history during a qualification period. Thereafter, shareholders are free to buy and sell the Qs thus distributed.³⁴ Qs represent a proportion, or percent, of the TAC (which in groundfish management is called the OY³⁵) of different groundfish stocks.

Each year, these shares are converted from a percent to a quantity by issuing QPs based on the OYs established for the year. The QPs would have to be transferred to a vessel account to be used. The amount of groundfish caught by an LE trawl vessel, even if it is subsequently discarded, must be matched by an equivalent quantity of QPs.³⁶ The QP is expended in this way, with the matched amount deducted from the vessel's account. If there is not enough QP to cover the catch from a trip, there would be a 30-day grace period during which adequate QPs must be transferred into the vessel's account. A vessel's

³³ Catcher/processors are considered harvesters for the purposes of initial allocation and are included here.

³⁴ The Council considered issuing Qs for a fixed time, after which all or a portion of the Qs would be periodically reallocated. Although a fixed duration is not part of this alternative, the MSA restricts the duration of a fishing privilege to 10 years and specifies conditions for automatic renewal.

³⁵ Under revised National Standard 1 guidelines, the Council may instead refer to this amount as the annual catch limit (ACL). Adoption of provisions to comply with the revised guidelines is the subject of a separate FMP amendment process, which may be implemented at about the same time as the trawl rationalization program.

³⁶ Qs/QPs would not be required to cover catch by LE permit holders in a few special circumstances: if they are fishing under an LE fixed-gear permit and using that gear type on their vessel, or if they are using trawl gear in a nongroundfish fishery, such as a shrimp trawl fishery (these nongroundfish trawl fisheries incidentally catch some groundfish).

fishing would be limited, and its permit could not be sold, until the overage is covered. There would be a carry-over provision, which is described in Section 2.2.9. Both QSs and QPs are perfectly divisible and tradable. Making QSs and QPs divisible and able to be acquired in very small increments is intended to allow for new entrants into the fishery; for example, a crew member could slowly purchase amounts of quota.

QSs would be of long duration, so a transfer represents a long-term or permanent divestment. In contrast, QPs must be used within the year for which they are issued (although there is a provision for limited carry-over of unused QPs from one year to the next or QPs issued in the following year to be used in the current year), so QP transfer would not represent a permanent divestment of the harvest privilege, so long as one continues to control the underlying QSs. QS transfers would be prohibited in the first two years of the program so that they would only occur once participants fully understand how the program operates, and stable prices have been reached. QPs would still be fully transferable during the first two years. QSs or QPs could not be transferred between the different IFQ sectors, so there would be stability in the relative amount of fish caught within each sector.

Eligibility to own QSs/QPs would be defined very broadly; the main requirements are a U.S. citizen must be the owner, and a U.S. documented fishing vessel must be registered to a groundfish LE trawl permit must be used to harvest groundfish using QPs.³⁷

2.2.3 Accumulation Limits and Grandfather Clause

Accumulation limits, or the maximum amount of QSs and QPs an entity may control, would be limited, with these limits varying according to the management unit (stock, or stock complex). QS limits are a limit on the amount an individual or entity may control through ownership or other means. QP limits refer to the maximum amount that may be assigned to any one vessel during a given year to cover catch. These vessel limits are generally twice the control limits to allow several QS holders to work together on a single vessel. These limits are intended to limit the consolidation of quota holdings. Alternative 2 QS control limits and QP vessel limits are as follows:

- Shore-based nonwhiting: 3 percent control limit; 6 percent vessel limit
- Shore-based whiting: 12 percent control limit; 25 percent vessel limit
- At-sea mothership whiting (motherships and catcher-vessels): 25 percent control limit; 50 percent vessel limit
- At-sea catcher-processor whiting: 60 percent control limit; 75 percent vessel limit

Alternative 2 contains a grandfather clause under which initial recipients of QSs who exceed the accumulation limits would be allowed to possess excess QSs up to the amount initially allocated to them.

2.2.4 Initial Allocation to Processors

Under Alternatives 2a and 2b, all of the initial allocation of QSs would go to LE permit holders (harvesters). Under Alternative 2c, shore-based processors would receive 25 percent of the initial allocation of groundfish species and would share 50 percent of the allocation of whiting QSs with mothership processors based on their processing history during a qualification period. The catcher-

³⁷ Currently, LE permits include a length endorsement that defines the maximum size of vessel that may be registered to the permit. Permits may be combined to achieve a length endorsement for a larger vessel. The length endorsement would be suspended under the IFQ program.

processors are not included under the initial allocation to processors under Alternative 2, but are included in the initial allocation to harvesters in Section 2.2.2.

2.2.5 Species Covered

Qs/QPs would be issued for all of the current groundfish management units. Management units are fish stocks, or complexes comprising co-occurring or related stocks, for which an OY (ACL) is established. Table 2-2 shows the management units for which IFQ would be established.³⁸ Procedures would be established to reallocate Qs when management units are changed or new ones added. For the whiting fishery (shore-based, mothership, and catcher-processor), IFQ would either be created for all species of groundfish, or IFQ might be created only for the target species, Pacific whiting. Under the second option, the allocation of bycatch to the whiting fishery (or to specific whiting sectors) would be managed as fleet bycatch limits for widow rockfish, canary rockfish, darkblotched rockfish, and Pacific ocean perch. Reaching the fleetwide catch allocation or bycatch limit would trigger closure of the whiting fishery (or a specific whiting sector).

Alternative 2 also includes an IBQ for Pacific halibut. Although functionally equivalent to the IFQ system applied to other species, Pacific halibut are a prohibited species in the groundfish trawl fishery and cannot be retained. Therefore, although accounted for through the IBQ, all halibut must be discarded.

³⁸ Under Alternative 4b (the preferred alternative), IFQ would not be used as the catch control tool for selected management units. Under Alternative 2, these management units would be managed with IFQ.

Table 2-2. Management units considered for IFQ under the alternatives. Overfished species shown in bold.

IFQ Management Units	
Roundfish	Flatfish
Lingcod	Dover sole
Pacific cod	English sole
Pacific whiting	Petrale sole
Sablefish north of 36° N. latitude	Arrowtooth flounder
Sablefish south of 36° N. latitude	Starry flounder
Rockfish	Other Flatfish stock complex
Pacific ocean perch	Additional IFQ species (under Alt. 4b only, these species not managed with IFQs)
Widow rockfish	Shortbelly rockfish
Canary rockfish	Longspine thornyhead south of 34°27'
Chilipepper rockfish	Black Rockfish - coastwide
Bocaccio	Minor Rockfish North Nearshore complex
Splitnose rockfish	Minor Rockfish South Nearshore complex
Yellowtail rockfish	California scorpionfish
Shortspine thornyhead north of 34° 27' N. latitude	Cabezon (off CA only)
Shortspine thornyhead south of 34° 27' N. latitude	Kelp greenling
Longspine thornyhead north of 34° 27' N. latitude	Other Fish*
Cowcod	
Darkblotched	
Yelloweye	
Minor Rockfish North slope species complex	
Minor Rockfish North shelf species complex	
Minor Rockfish South slope species complex	
Minor Rockfish South shelf species complex	

*Starting in 2009, longnose skate is managed under its own OY. However, because the time period used to determine initial allocation of Qs was managed under the Other Fish complex, this species will not be managed with IFQ.

2.2.6 Number of Sectors

Three sectors would be established whereby the two current whiting and nonwhiting shore-based sectors would be combined into a single sector. Participants in this single sector would be free to trade IFQ (Qs or QPs), eliminating any regulatory barrier between targeting whiting and nonwhiting (operational differences among participants may mean that a large degree of specialization in targeting could continue). The whiting mothership and catcher-processor sectors would each be managed separately with their own allocations of catch opportunity and IFQ. IFQ could not be traded between the three sectors.

2.2.7 Adaptive Management

Alternatives 2a and 2c do not have an adaptive management element. Under Alternative 2b, each year up to 10 percent of the trawl sector allocation would be set aside for an AMP. These are fish that would have otherwise been distributed to QS owners. This program is meant to address a variety of objectives, ranging from socioeconomic dislocation resulting from implementation of the trawl rationalization program to encouraging innovative fishing methods, for example to reduce bycatch. The Council would decide how much QP would be set aside every two years for adaptive management use as part of the

biennial harvest specifications process. The harvest specifications process establishes OYs/ACLs for a two-year period and adjusts management measures so that catches will not exceed these limits.

2.2.8 Area Management

Under Alternative 2, no separate Qs would be created for different latitudinal areas. Area-specific QS is considered under other alternatives because this could prevent substantial geographic redistribution of QS holdings and related impacts to communities. Some stocks are currently managed geographically with separate OYs established for each component; for those stocks, Qs/QPs would be denominated accordingly.

2.2.9 Carryover of Unused QPs between Consecutive Years

Under Alternative 2, unused QPs amounting to 10 percent of the used and unused QPs in the vessel account may be carried over for use in the next year. Similarly, to cover an overage (landings that exceed the amount of QPs held in a vessel account), QPs that might be allocated in the next year may be transferred to the current year, reaching up to 10 percent of the used and unused QPs in the vessel account during the current year.

2.2.10 Tracking and Monitoring

All vessels would be required to carry at-sea observers at their own expense to monitor sorting and discarding of the catch and shoreside landings. There would also have to be an electronic system to report bycatch and landings, which may be integrated with the current state fish ticket (landings reporting) system. NMFS would also administer a system to track QS/QP holdings. A comprehensive mandatory monitoring program is expected to require minimal increases in enforcement effort.

A tracking and monitoring program is necessary to ensure that the total catch (including discards) is accurately documented and matched against QPs. The requirements for accuracy are expected to be greater for QP species than they are for species that are monitored for fleetwide catch accounting. Appendix A, Section A-2.3.1, details tracking and monitoring provisions, including discarding, at-sea and shoreside monitoring, catch tracking mechanisms, cost control mechanisms, and program performance measures. For an IFQ fishery, IFQ species may be discarded at sea except for whiting shore-based vessels. Discarded IFQ species would count against QPs, and all discarded catch would be required to be covered by QPs. IBQ species must be discarded by all vessels. Shoreside whiting vessels may be required to participate in a maximized retention program where discarding is prohibited.

At-sea observers would be required on all vessels (100 percent coverage), and cameras may be used to augment the observers and assure compliance. All vessels would be required to carry at-sea observers for full total catch verification (100 percent of the groundfish IFQ species in each haul). Observers would be required to monitor the sorting, weighing, and discarding of catch. Compared to status quo monitoring of less than 25 percent provided by the WCGOP, this would be a substantial increase for a large portion of the shoreside trawl fishery and the catcher vessels in the mothership sector. To resolve ongoing monitoring issues or in response to violations, cameras may be required in place of, or in addition to, observers (feasibility to be determined).

To assure accuracy when QPs are discarded at sea, vessels may be required to meet specified monitoring and weighing provisions, including adequate space for catch sorting, an adequate location for observer monitoring, and the equipment necessary for accurately weighing and documenting QP species at sea. Vessels that are determined to be unsafe for the purposes of carrying an observer would be prohibited

from participating in any of the IFQ trawl fisheries. For shoreside whiting trips, full observer coverage may be required in addition to, or as a replacement for, an EMS system.

Little, if any, change in the number of observers per vessel in the catcher-processor and mothership sector is expected. Because most, if not all, of the processing vessels also participate in the Alaska groundfish fishery, where they are required to have specific equipment for the observers to obtain accurate weights, the changes needed to implement adequate monitoring for a rationalization program are primarily related to the sorting and weighing of catch and interactions with the observers; thus, they are not expected to be a substantial change over status quo.

Vessel-specific monitoring of total mortality would provide more accurate catch data and would, thereby, reduce the risk of exceeding a harvest allocation (ABC, OY, harvest guideline, allocation, or quota). All IFQ deliveries would require full monitoring (100 percent) shoreside for total catch verification. To control costs, landing hours may be limited, as well as landing locations. Landing locations may be certified or licensed by NMFS.

Tracking requirements would include a reporting system using electronic forms for submitting total catch data, including both discards and landings. The reporting system is expected to be integrated with the existing electronic fish ticket system currently required for Pacific whiting shoreside first receivers (72 FR 50906, September 5, 2007). A reporting system to track QS/QP holdings would be administered by NMFS. Additionally, a program for the mandatory submission of economic data are included to facilitate monitoring program performance.

NMFS would develop a fee structure based on the requirements of the MSA at Section 304(d)(2)(A) and on Council recommendations to recover program costs.

2.2.11 Gear Conversion

Within the IFQ program, vessels would be allowed to use a variety of directed groundfish commercial gear, allowing for “gear switching.” There is also an option for gear conversion (switching permanently from trawl to some other gear). Once Qs have been distributed, recipients would be free to use them with any legal groundfish gear, which, aside from trawl, principally means bottom longline and fish pots. There is a separate allocation of catch opportunity to nontrawl sectors, which would be unaffected by any catches resulting from gear conversion under the IFQ program.

2.3 Alternative 3 - IFQs for the Nonwhiting Sector and Co-ops for all Whiting Sectors

This section describes Alternative 3, IFQs for nonwhiting trawl sector and co-ops for the whiting trawl sectors (shore-based, mothership, and catcher-processor). Appendix A provides further detail on the elements and options the Council considered in an IFQ program. Appendix B provides further detail on the elements and options the Council considered in a cooperative (co-op) program.

Alternative 3 uses market-mitigating factors and harvest co-ops (instead of issuing QS under an IFQ fishery) for the whiting fishery and IFQ for the nonwhiting fishery. Alternative 3 places constraints and controls on market outcomes through sector divisions, lack of a grandfather clause, an adaptive management mechanism, relatively small accumulation limits, and area management. This alternative gives more influence to processors by giving them IFQ allocations and requiring that co-ops be linked to shore-based processors and motherships.

While the whiting fishery would not be issued QSs, they would still be issued to the shore-based nonwhiting fishery under an IFQ program in Alternative 3. However, the IFQ program would have some additional differences from those described in Alternative 2, including initial allocation, accumulation limits, lack of a grandfather clause, processor allocations, no halibut IBQ, area management, and no carry-over provision. For the whiting co-op program, imposing harvest co-ops on the three whiting sectors (shore-based, mothership, and catcher-processor) under Alternative 3 is expected to result in different outcomes than issuing QS for these sectors. Harvest co-ops are like a community where members collectively decide the allocation of fishing opportunities. The effect of this type of system is expected to be somewhat different than an IFQ system where harvesters may be more likely to engage in fishing opportunities independently.

The whiting co-ops in Alternative 3 would be managed separately, but the shore-based and mothership co-ops structure would be very similar. The catcher-processor sector currently operates under a voluntary co-op in the status quo fishery (Alternative 1). Under Alternative 3, this voluntary structure would continue with modest changes to the management system.

The following sections describe the main elements of Alternative 3, as summarized in Table 2-1.

2.3.1 Catch Control Tool

Under this alternative, the nonwhiting sector would be managed with IFQs in a program similar to that described under Alternative 2 (differences are summarized below). The three whiting sectors would be managed with cooperatives. A separate co-op structure would be used for each of the whiting sectors.

2.3.2 Initial Allocation and Qualification

IFQ for nonwhiting

Under Alternative 3, the initial allocation of QS would be based on both catch history during the qualification period and an equal allocation of the catch history associated with LE trawl permits that were bought back and retired at the end of 2003 as part of a capacity reduction program. The buyback program is partly funded through a loan to remaining participants, which is being paid back through landing fees. Equal allocations of QSs associated with the buyback permits would result in a more even distribution of QSs among permit holders, compared to allocations based on catch history alone. Alternative 2 did not include buyback history in the initial allocation formula.

Unlike Alternative 2 where all species are allocated based on catch history, a different formula is used for overfished species under this alternative. These species will still be under rebuilding programs after the projected implementation date of the trawl rationalization program (2011), requiring relatively small OYs. Thus, QSs/QPs for these species could act as a primary constraint on target fisheries, to the degree that incidental catch is unavoidable. Furthermore, since regulations prompted a large proportion of overfished species catch to be discarded, landings toward the end of the allocation period (1994 to 2003) do not accurately reflect the actual distribution of historical catch among fishery participants. Therefore, a different formula would be applied to overfished species to allocate QS. This formula takes into account the amount of target species QSs received by including a proportional component for overfished species QSs (as measured by bycatch rates, individual permit logbooks, and the amount of target species QSs that an entity receives). It also factors in areas where fishing occurred, 2003 to 2006, by a vessel associated with an eligible permit to account for geographic variation in overfished species bycatch rates. This approach is intended to better balance individual holdings of target and overfished species QSs and take into account the areas where permit holders have fished in the recent past. Provisions may allow QSs to

be reallocated once a species is rebuilt, recognizing that the annual OY could be increased substantially once the rebuilding restrictions are lifted.

Co-ops for whiting

The existing, status quo allocation of whiting (Alternative 1) between the shoreside whiting, mothership, and catcher-processor sectors would not change (42, 24, and 34 percent, respectively). No portion of one sector's whiting allocation could be transferred to another sector.

Although Pacific whiting comprises the dominant portion of the catch in the whiting fishery, some overfished rockfish do get caught. As discussed in Alternative 1, bycatch limits have been imposed on the whiting fishery. These bycatch limits would continue to be used under Alternative 3, but would include Pacific ocean perch in addition to widow rockfish, canary rockfish, and darkblotched rockfish. There would be a single cap to cover catch in all three whiting sectors for each overfished species managed this way.³⁹ These bycatch caps would be established for those overfished species likely to be caught in the whiting fishery. In addition, the current ESA-listed Chinook salmon bycatch management measure, a triggered 100-fathom closure, and an ESA consultation threshold would continue in effect.⁴⁰ Status quo management (trip limits) would be used for other bycatch species. In addition, an amount would be deducted from allocations to the trawl sector for these species to account for the expected small amounts of bycatch. Caps on overfished species would be expected to indirectly limit bycatch of these other species.

Under Alternative 3, with co-ops for the whiting sector, the following new permits would be created:

- Mothership processor permit: Historically, any vessel with the proper groundfish LE permit could enter this sector as a processor. The Council previously adopted a stopgap measure, under Amendment 15, to limit participation, which would be replaced by a new mothership permit under Alternative 3. Permit qualification would be based on whiting processing history.
- Shore-based whiting processor permit: Similarly, a new shore-based processor permit would be created under Alternative 3 for processors. Only those processors possessing one of these permits could receive whiting during the first two years of the program. Thereafter, any shore-based processor could receive whiting. See Appendix B, Section B-3.2.2 for more details.
- Whiting catcher vessel permit: New, separate LE permit endorsements would be created for catcher vessels participating in either the mothership or shore-based co-op sectors. Qualification for a permit would be based on past participation in the relevant whiting sector.
- Catcher-processor permit: A permit endorsement would be created to limit participation in the catcher-processor sector. Historically, any vessel with the proper groundfish trawl LE permit could participate. The Council previously adopted a stopgap measure, under Amendment 15, to limit participation, which would be replaced by the catcher-processor co-op provisions of the trawl rationalization program. Only vessels with a catcher-processor-endorsed LE permit would

³⁹ Status quo management of bycatch limits in the whiting fishery now includes a bycatch limit of these species for each of the three whiting sectors (shore-based, mothership, and catcher-processor). This was first implemented in 2009. Because this analytical document was developed before this change, bycatch limits for one combined whiting sector remain in this alternative.

⁴⁰ This threshold, based on the total amount of Chinook salmon caught or the Chinook bycatch rate, triggers a reinitiation of consultation under section 7 of the ESA. As part of the consultation process new measures can be required to mitigate listed species take.

be allowed to harvest fish from the sector's allocation. Pacific whiting vessel licenses currently required under status quo (Alternative 1) would no longer be needed. LE permits with catcher-processor endorsements would continue to be transferable.

Whiting catcher vessels would be able to, each year, choose to join a co-op or fish in a non-co-op fishery. If a vessel chooses to fish in a co-op, it would have to deliver all of its catch to the processor in its co-op (a mothership or shore-based processor). If a catcher vessel wishes to change its co-op membership, it would have to first fish for a year in the non-co-op fishery before joining the new co-op.

Each co-op that is formed would receive an allocation of the sector's overall whiting allocation, based on the combined catch history associated with each member's LE permit. Although the co-op allocation would be based on particular LE permits' catch history, vessels in the co-op would be able to arrange to have another vessel harvest all or a portion of their catch if they do not want to actively participate in the fishery.

The non-co-op fishery would receive an allocation based on the collective catch history of vessels that choose not to join a co-op, in a fashion similar to the co-op allocations. However, harvest would be further controlled in the non-co-op fishery through season restrictions. Vessels fishing in the non-co-op fishery would not be obligated to deliver to any one processor. For the duration of any given year, a permitted catcher vessel could participate in the non-co-op fishery, but the structure of this sector is intended to encourage co-op participation. Non co-op fishery participants would not have the surety of a buyer that a processor co-op obligation represents and could not easily coordinate fishing strategy in the way they are expected to in co-ops. In essence, a non-co-op would be expected to function as an Olympic-style fishery with individual vessels competing among one another to catch the largest portion of the allocation.

Co-ops are expected to facilitate coordination and cooperation among members with respect to harvest strategy. Although co-op members would be guaranteed catch opportunity equal to the portion of the allocation they brought into the co-op through their catch history, in general the co-op allocation is pooled. Members could jointly agree on the specifics of harvesting.

Two or more co-ops could reach an inter-co-op agreement to coordinate harvest strategy and pool whiting and bycatch cap allocations. Various standards for co-op and inter-co-op contractual agreements would be established, both to aid NMFS in its fishery management role and to prevent any member from being unduly disadvantaged by co-op participation.

For the catcher-processor co-op, which currently operates as a single, voluntary co-op, there are few changes from Alternative 1. The catcher-processor permit (mentioned above in this section) would be required. Also, there would be a provision to allow for implementing an IFQ program if the current voluntary co-op system were to fail. In such a case, individual quota would be allocated to each CP permit (equally divided among all CP endorsed permits).

2.3.3 Accumulation Limits and Grandfather Clause

Under Alternative 3, accumulation limits are generally lower than in Alternative 2. Shore-based and mothership co-ops would be subject to control limits similar to those described for the IFQ program in Alternative 2. Shore-based whiting catcher vessel permit holders would be limited in terms of their control of co-op shares (recognizing that one entity could own multiple permits). In the mothership sector, the mothership processors and associated catcher vessels would be limited with respect to how

much of the allocation they could process or control through co-op shares. Alternative 3 QS control limits and, for the IFQ program, QP vessel limits are as follows:

- Shore-based nonwhiting: 1.5 percent control limit; 3 percent vessel limit
- Shore-based whiting: 15 percent control limit
- At-sea mothership whiting
 - motherships: 20 percent control limit
 - catcher-vessels: 10 percent control limit
- At-sea catcher-processor whiting: none

Alternative 3 does not contain a grandfather clause; any potential initial allocation in excess of the accumulation limit would instead be redistributed to those permits below the limits.

2.3.4 Initial Allocation to Processors; Co-op Affiliations

IFQ for nonwhiting

In Alternative 3, 25 percent of nonwhiting groundfish would be allocated to shore-based processors. This differs from Alternative 2c because shore-based whiting is not included since that sector would be managed with co-ops. Small amounts of whiting, representing incidental catch by nonwhiting vessels, would be allocated as QS to the nonwhiting sector permit holders.

Co-ops for Whiting

In Alternative 3, there would be 100 percent processor affiliations in mothership and shore-based whiting co-op sectors.

2.3.5 Species Covered

IFQ for nonwhiting

Alternative 3 contains the same groundfish species covered by an IFQ for the nonwhiting fishery as those in Alternative 2 and those listed in Table 2-2. Unlike Alternative 2, Alternative 3 does not include a halibut IBQ. Pacific halibut bycatch would be subject to status quo management. Under status quo management, the allocation to other fishery sectors in the west coast management area (IPHC Area 2A) is determined by reducing the area TAC by an amount equal to an estimate of the previous year's groundfish trawl sector halibut bycatch. This is an approximate method for accounting for trawl bycatch; if the trawl bycatch in a given year exceeds the amount by which the area TAC was reduced, that is factored into the next stock assessment.

Co-ops for whiting

Under Alternative 3, the species covered in the whiting co-op fishery are limited to whiting and bycatch species. This means that the market-based program does not directly influence how many of the species are caught that do not fall under the whiting or bycatch species category. This lessens the impact the market has on harvests and changes the degree of individual accountability associated with the harvest of groundfish species.

2.3.6 Number of Sectors

Unlike Alternative 2, Alternative 3 would have four separately managed trawl sectors: shore-based nonwhiting, shore-based whiting, mothership whiting, and catcher-processor whiting.

2.3.7 Adaptive Management

Alternative 3 would include the AMP described for Alternative 2b. For the whiting co-ops, only participants in a given sector would be eligible for the adaptive management amounts deducted from each sector's whiting allocation.

2.3.8 Area Management

Under Alternative 3, Qs/QPs for each management unit would be divided geographically so that area-specific QPs would be needed to cover catches in each area. Two zones would be established, one north and the other south of 40°10' N. latitude.

2.3.9 Carryover of Unused QPs between Consecutive Years

Alternative 3 would not contain the carry-over provision included under Alternatives 2 and 4.

2.3.10 Tracking and Monitoring

IFQ for nonwhiting

For the IFQ nonwhiting sector of the fishery, Alternative 3 would contain the tracking and monitoring components described in Alternative 2.

Co-ops for whiting

As discussed above under Alternative 2, given the high level of monitoring already in place in the whiting fishery under status quo management (Alternative 1), only moderate changes in monitoring are expected to be needed to implement Alternative 3 for the whiting fishery. NMFS would close the fishery, a particular sector, the co-op or non-co-op fishery within a sector, or individual co-ops, as appropriate, if a whiting catch or bycatch limit is reached. With respect to co-ops, inseason monitoring and closure would be needed only at the highest level of aggregation of the co-ops. For example, if individual co-ops join together to form an inter-co-op that covers the entirety of one of the whiting sectors, then NMFS would track and close the fishery at the sector level.

Additionally, a program for the mandatory submission of economic data would also be included for the IFQ and the co-op programs, to facilitate monitoring program performance.

2.3.11 Gear Conversion

For the IFQ program, gear conversion would be permitted as described under Alternative 2.

2.4 Alternative 4 (Council Preferred) - IFQs for Single Shore-based Sector and Co-ops for the Whiting At-sea Sectors

This section describes Alternative 4, IFQs for a single shore-based sector (shore-based whiting and nonwhiting) and co-ops for the whiting at-sea sectors. Two sub-alternatives are evaluated under this alternative (Alternatives 4a and 4b) to compare and contrast certain key elements of the IFQ and co-op programs. The Council-preferred alternative is Alternative 4b. As noted above, Appendix A provides further detail on the elements and options the Council considered in an IFQ program. Appendix B provides further detail on the elements and options the Council considered in a co-op program. Appendix D provides further detail on the Council-preferred alternative, Alternative 4b.

Similar to Alternative 3, Alternative 4 is a hybrid approach to rationalizing the groundfish trawl fishery using IFQ and co-ops. However, Alternative 4 moves the shore-based whiting sector from being part of the co-op fishery (as in Alternative 3) to being part of the shore-based IFQ fishery. Alternative 4 would modify the status quo by establishing a single shore-based sector (combining whiting and nonwhiting shore-based fisheries) and co-ops for the whiting at-sea sectors (mothership and catcher-processor sectors). Alternative 4 is intermediate to alternatives 2 and 3 by allowing for more market-driven outcomes than Alternative 3, but fewer than Alternative 2. Alternative 4 achieves a more moderate degree of market influence than Alternative 3 by allowing carry-over provisions, allowing for three trawl sectors, establishing accumulation limits that are between those for alternatives 2 and 3, requiring fewer processor linkages in the mothership co-op program, and crediting shore-based processors for landed whiting only.

Differences between Alternatives 4a and 4b

Alternatives 4a and 4b (Council-preferred) compare and contrast some aspects of all of the key program elements, except for the catch control tools and the number of sectors. For the IFQ program under Alternative 4b, a sub-set of species are covered with IFQs in the shore-based fishery, rather than all species in the Council's ABC/OY table for groundfish (Section 2.4.5 below). Those species would continue to be managed with cumulative landing limits. Those species that are not covered with IFQs are excluded because the incidental catch of those species is small relative to management targets, and the inclusion of those species may have negative economic implications with little to no benefit to management. For initial allocation and qualification, alternatives 4a and 4b would differ in how the buyback history is shared among sectors for the IFQ program and in the qualification requirements for the co-op fishery (Section 2.4.2 below). Accumulation limits vary between alternatives 4a and 4b (Section 2.4.3 below). Alternative 4a would include a grandfather clause, while Alternative 4b would not, but would allow QS owners time to divest any overage. For the IFQ program, alternatives 4a and 4b vary in the amount of whiting allocated to shore-based processors (Section 2.4.4 below). For the mothership co-op program, processor affiliations vary between alternatives 4a and 4b. Both alternatives include an AMP (Section 2.4.7 below). Alternative 4a would set aside 10 percent of the shore-based trawl allocation of all groundfish IFQ species, while Alternative 4b would set aside 10 percent of nonwhiting species for the shore-based sector. Alternative 4a would include area management, while Alternative 4b would not (Section 2.4.8 below). Both alternatives would include a carry-over provision; Alternative 4b would decrease the carry-over if the OY declines in the subsequent year (Section 2.4.9 below).

The following sections describe the main elements of Alternative 4 (including alternatives 4a and 4b (Council-preferred), as summarized in Table 2-1.

2.4.1 Catch Control Tool

Alternative 4 uses IFQs as the management tool for a combined whiting and nonwhiting shore-based sector and cooperatives for the two at-sea whiting sectors.

2.4.2 Initial Allocation and Qualification

IFQ for shore-based

The initial allocation of the target and overfished species in Alternative 4 is the similar to that described under Alternative 3 (Section 2.3.2), except for which sectors get IFQ and, under Alternative 4b (Council-preferred alternative), the initial allocation of overfished species IFQ. Under Alternative 4b, there is no equal sharing element for overfished species IFQ based on buyback permits, except for canary rockfish.

In Alternative 4, the shore-based whiting sector would also receive an initial allocation of IFQ and would share the buyback history. Under Alternative 3, the buyback history would be shared within the nonwhiting shore-based sector. Under Alternative 4a, equal sharing of buyback history would apply to the combined shore-based sector only (whiting and nonwhiting). Under Alternative 4b (Council-preferred), the equal sharing provision would apply to both the shore-based sector (whiting and nonwhiting) and the mothership sector, although, as noted above, there is no equal sharing component for overfished species with the exception of canary rockfish for the combined shorebased sector.⁴¹

The equal sharing element for initial allocation of canary rockfish IFQ in the preferred alternative (Alternative 4b) resulted from a reconsideration adopted by the Council at its November 2009 meeting. Canary rockfish bycatch tends to be episodic and unpredictable and has occurred across a range of target strategies. The Council decided that an allocation formula for canary rockfish that included the equal sharing element (so that every permit gets at least some minimum level of canary rockfish IFQ) would lower the risk of some harvesters being forced out of the fishery because they did not possess, and could not obtain (due to expected high cost), the canary rockfish IFQ needed to cover their bycatch.

Co-ops for at sea

Alternative 4 initial allocation and qualification is similar to Alternative 3, except for which sectors are managed under co-ops. The mothership and catcher-processor sectors would be managed under co-ops (i.e., the at-sea whiting fishery).

For the mothership catcher-vessels, Alternative 4a has the same qualification years as Alternative 3, 1997 through 2003 (an LE permit would qualify for a catcher vessel mothership whiting endorsement if it has a total of more than 500 million tons [mt] of whiting deliveries to motherships during those years). Under Alternative 4a, the catch history assignment for the catcher-vessels in the mothership fishery would be based on the best six out of seven years using those same years, 1997 through 2003. Under Alternative 4b (Council-preferred), different years are used for the catcher-vessel mothership endorsement qualification, 1994 through 2003, and the best 8 out of 10 years from 1994 through 2003 are used for catch history assignment.

Under Alternative 4, the catcher-processor structure and permit would be the same as described in Alternative 3. Since the catcher-processor sector would continue to operate as a single voluntary co-op, catch history assignment is unnecessary; the co-op has access to the full sector allocation.

⁴¹ Since the mothership sector would be managed with co-ops under Alternative 4, the equal sharing provision applies to the allocation of catcher vessel co-op shares (i.e., catcher vessel catch history assignments).

The bycatch limits for the co-op fisheries described under Alternative 3 (Section 2.3.2), would also apply to Alternative 4.

2.4.3 Accumulation Limits and Grandfather Clause

Under Alternative 4, IFQ accumulation limits are generally intermediate to Alternatives 2 and 3. For the co-op fishery, they are higher than Alternative 3.

Alternative 4a QS control limits and, for the IFQ program, QP vessel limits are as follows:

- Shore-based nonwhiting: 2.2 percent control limit; 4.4 percent vessel limit
- Shore-based whiting: 25 percent control limit; 12 percent vessel limit
- At-sea mothership whiting
 - motherships: 30 percent control limit
 - catcher-vessels: 15 percent control limit
- At-sea catcher-processor whiting: none

Alternative 4b accumulation limits are similar in structure to Alternative 4a; however, mothership catcher vessels would be subject to a usage limit in addition to a control limit. The usage limit is a limit on the amount any one vessel can catch and deliver to a processor. Since co-op shares would be pooled and the allocation of catch opportunity among vessels would be decided by co-op members, it is not possible to track the accumulation of co-op shares on a vessel in the way that QP vessel limits work in the IFQ program. The usage limit is an alternative approach to achieve the same end. Alternative 4b QS control limits and, QP vessel limits for the IFQ program, are as follows:

- Shore-based nonwhiting: 2.7 percent control limit; 3.2 percent vessel limit
- Shore-based whiting: 10 percent control limit; 15 percent vessel limit
- At-sea mothership whiting
 - motherships: 45 percent control limit
 - catcher-vessels: 20 percent control limit; 30 percent vessel limit
- At-sea catcher-processor whiting: none

Alternative 4a contains the grandfather clause allowing QS holdings in excess of accumulation limits based on initial allocation. Alternative 4b (the preferred alternative) does not contain the grandfather clause. Permit holders who would receive QS in excess of the accumulation limits would have two years to divest their excess QSs to any willing receiver. This would occur in the third and fourth years of the program, since QS transfers are prohibited in the first two years of the program. Any QSs not divested at the end of the fourth year would be forfeited, and these excess QSs would be reallocated to other permit holders below the limit. Before divestiture, these quota holders are free to use the QPs derived from their excess QSs. This is meant to smooth the transition for those fishery participants with historically large catches.

In addition to the overall program control limits and vessel limits, there are also species-specific limits as detailed in Table 2-3.

Table 2-3. QS control limits and QP vessel limits in the IFQ Program under Alternative 4b.

Species Category	Vessel Limit (Vessel Use Limit)	Vessel Unused QP Limit	QS Control Lim
Nonwhiting Groundfish Species	3.2%		2.7%
Lingcod - coastwide	3.8%		2.5%
Pacific Cod	20.0%		12.0%
Pacific whiting (shoreside)	15.0%		10.0%
Sablefish			
N. of 36° (Monterey north)	4.5%		3.0%
S. of 36° (Conception area)	15.0%		10.0%
PACIFIC OCEAN PERCH	6.0%	4.0%	4.0%
WIDOW ROCKFISH *	8.5%	5.1%	5.1%
CANARY ROCKFISH	10.0%	4.4%	4.4%
Chilipepper Rockfish	15.0%		10.0%
BOCACCIO	15.4%	13.2%	13.2%
Splitnose Rockfish	15.0%		10.0%
Yellowtail Rockfish	7.5%		5.0%
Shortspine Thornyhead			
N. of 34°27'	9.0%		6.0%
S. of 34°27'	9.0%		6.0%
Longspine Thornyhead			
N. of 34°27'	9.0%		6.0%
COWCOD	17.7%	17.7%	17.7%
DARKBLOTCHED	6.8%	4.5%	4.5%
YELLOWEYE	11.4%	5.7%	5.7%
Minor Rockfish North			
Shelf Species	7.5%		5.0%
Slope Species	7.5%		5.0%
Minor Rockfish South			
Shelf Species	13.5%		9.0%
Slope Species	9.0%		6.0%
Dover sole	3.9%		2.6%
English Sole	7.5%		5.0%
Petrale Sole	4.5%		3.0%
Arrowtooth Flounder	20.0%		10.0%
Starry Flounder	20.0%		10.0%
Other Flatfish	15.0%		10.0%
Other Fish	7.5%		5.0%
Pacific Halibut	14.4%	5.4%	5.4%

* If widow rockfish is rebuilt before initial allocation of QSs, the vessel limit will be set at limit will be 1.5 times the control limit.

2.4.4 Initial Allocation to Processors; Co-op Affiliations

IFQ for shore-based

Under Alternative 4a, 50 percent of shore-based IFQ for whiting would be allocated to processors based on processing history. Under Alternative 4b, the Council-preferred alternative, shore-based processors would be allocated 20 percent of the shore-based IFQ for whiting.

Co-ops for at sea

The mothership sector is managed with harvest co-ops, and each catcher vessel wanting to participate in a co-op must declare a mothership to which it will deliver in the upcoming year. Unlike harvest co-ops with linkages in Alternative 3 and 4a, the co-op declaration under Alternative 4b (Council-preferred) allows vessels to switch motherships freely from year to year without penalty. However, catcher vessels cannot fish for more than one mothership within a year, unless it is participating in the non-co-op fishery. Under Alternative 4b, catcher vessels would declare which co-op they would join before the beginning of the fishing year. They would then be obligated to deliver their catch to the associated mothership processor for that fishing season. In any subsequent year, they could change their affiliation without first participating in the non-co-op fishery through the pre-season declaration. Provision for a non-co-op fishery would still be included in the program structure. Any vessel not wishing to affiliate with a co-op could participate in the non-co-op fishery and deliver to any willing mothership processor. The declaration element under Alternative 4b was adopted by the Council after hearing from NOAA General Counsel that a mothership linkage may raise some legal issues. The declaration provision is intended to provide some degree of certainty to foster business planning among motherships. Under Alternative 4a, catcher vessels would be obligated to deliver 50 percent of their catch to the processor to which they are tied (compared to all their catch under Alternative 3). They would be free to deliver the remaining 50 percent to any mothership processor willing to receive it. As in Alternative 3, they would have to participate in the non-co-op fishery first to change their processor affiliation.

2.4.5 Species Covered

IFQ for shore-based

Alternative 4a does not include a halibut IBQ (similar to Alternative 3); while Alternative 4b (Council-preferred) does (similar to Alternative 2). Under Alternative 4b, bycatch mortality of Pacific halibut must be covered by IBQ, and mortality would be assessed at the individual vessel level. Under Alternative 4b, a sub-set of species are covered with IFQ in the shore-based fishery, rather than all species in the Council's ABC/OY table for groundfish. Table 2-2 shows the groundfish management units that would have IFQs and those for which IFQs would not be issued under Alternative 4b. Species for which an IFQ is not issued would continue to be managed with current tools, such as cumulative landing limits. Those species that are not covered with IFQs are excluded because the incidental catch of those species is small relative to management targets, and the inclusion of those species may have negative economic implications with little to no benefit to management.

Co-ops for at sea

Similar to Alternative 3, the species covered in the at-sea whiting co-op under Alternative 4 are limited to whiting and bycatch species. Part of the trawl allocation for nonwhiting management unit species taken in the at-sea whiting sectors would be set aside to accommodate catches in those sectors; the remainder would be available for harvest in the shore-based sector.

2.4.6 Number of Sectors

Similar to Alternative 2, Alternative 4 would have three trawl sectors: shore-based (combined whiting and nonwhiting), mothership whiting, and catcher-processor whiting.

2.4.7 Adaptive Management

IFQ for Shore-based

Alternative 4a would implement an AMP for the combined shore-based sector reserving 10 percent of the QS for all species (as in Alternative 2b). Alternative 4b would implement a program where only nonwhiting species QS would be reserved for the shore-based sector. In addition, under Alternative 4b during the first two years of implementation of trawl rationalization the adaptive management QPs would be distributed to QS holders in proportion to their holdings except for canary rockfish. Allocations of QPs under the program would begin in the third year based on further specification of AMP objectives and mechanisms.

Co-ops for at sea

Under Alternative 4, there would be no AMP for the mothership and catcher-processor whiting sectors.

2.4.8 Area Management

Alternative 4a is the same as Alternative 3, where QSs/QPs for each management unit would be divided geographically so that area-specific QPs would be needed to cover catches in each area. Two zones would be established, one north and the other south of 40°10' N. latitude. Alternative 4b would not include area management, same as Alternative 2.

2.4.9 Carryover of Unused QPs between Consecutive Years

Alternative 4 includes the same carry-over provision described in Alternative 2 (Section 2.2.9).

2.4.10 Tracking and Monitoring

IFQ for shore-based

For the IFQ program, Alternative 4 would contain the tracking and monitoring components described in Alternative 2, but would apply to the shore-based (whiting and nonwhiting) sector.

Co-ops for at sea

Alternative 4 is the same as Alternative 3.

A program for the mandatory submission of economic data would also be included for the IFQ and the co-op programs, to facilitate monitoring program performance.

2.4.11 Gear Conversion

For the IFQ program, gear conversion would be permitted as described under Alternative 2.

2.5 Alternatives considered, but rejected from further analysis

There are many different programs that might be used to rationalize the fishery. The Council focused on IFQs and co-op approaches to rationalization. Some other approaches for rationalization that were considered and set aside were permit stacking, processor Qs, community development quotas (CDQs), and a proposal called the Optimum Species Harvesting Unified Allocation Plan (OSHUA).⁴² Under permit stacking, cumulative limits would have been kept in place, but they would have become catch limits instead of landing limits, necessitating 100 percent observer coverage. A vessel would have been able to access an additional set of cumulative limits for each permit it stacked on the vessel (similar to the LE fixed gear sablefish permit stacking program). Under status quo, because not every vessel lands the full cumulative limit, cumulative limits can be set higher than would be the case if each vessel's cumulative limit was fully utilized. Permit stacking would be expected to increase the utilization of cumulative limits, necessitating that the limits be reduced and likely resulting in the limits becoming quotas.⁴³ The prospect of full utilization of each cumulative limit would essentially turn the program into an IFQ program with very limited transferability or flexibility. The Council kept an option for permit stacking (and switching from landing to catch limits) on the table for several years during its deliberative process before finally setting it aside. The main problem with the alternative was that it entailed some of the more significant costs of the IFQ alternative (e.g., full observer coverage) but without the flexibility needed to generate significant economic benefits from rationalization.

Another major alternative considered was processor Qs. Processor Qs are shares that must be held to process fish and, thus, differ from IFQs which must be held to harvest fish (they are also different from the allocation of IFQ to processors). It is arguable whether or not processor shares are an effective or needed tool for rationalization of the fishery. The Council consideration of such an option was stemmed first by a Congressional prohibition on the spending of funds for consideration of quotas for processing and then by a prohibition in the MSA.

The Council also explored rationalization programs that might directly include communities, something similar to the CDQ programs in Alaska. A community representative was assigned to the committee that took the lead in initial program design (the TIQC). However, the Council heard both from that representative and others involved in local governments that local governments on the west coast were not interested in the administrative costs and burdens that would be entailed in running a CDQ program.

The OSHUA plan covered management of sectors (e.g., recreational) far beyond the scope of the proposed action. With respect to the portions of the proposal covering management of the trawl sector, the proposal would have been based on annual (or biannual) reallocations of fishing privileges in a manner that would reward those harvesting the most target species within rebuilding and bycatch constraints. While providing an incentive to reduce bycatch rates, the proposal did not allow for substantial rationalization of the fishery and the generation of the increased benefits needed to counteract the increased management costs. The annual allocations needed to achieve the objectives identified by the plan would have been more complicated than identified in the plan (e.g., requiring consideration of depth and latitudinal strata), administratively costly, and a substantial burden on the resources available

⁴² CEQ regulations covering EISs state “for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated [sic]” (40 CFR 1502.14(a)). This section provides a short summary of the range of approaches considered, both in developing the trawl rationalization and in earlier years. Deliberations before the trawl rationalization proposal was developed are relevant because they helped to shape the range of ideas the Council considered during trawl rationalization program development.

⁴³ The cumulative limits would become quotas when they are reduced to the level at which, if every vessel takes its limit, the total catch will exactly equal the trawl allocation.

for fishery management. Additionally, the plan called for the delegation of responsibilities to Council advisory bodies in a manner that is not allowed under the MSA.

The Council also considered but rejected achieving individual accountability and improved mortality estimates through full retention rules in the nonwhiting fishery with compliance monitored through video cameras. Reasons for the Council recommendations on these management approaches are discussed in Sections 2.6.2 and 2.6.4.

There are a number of provisions (components of alternatives) considered by the Council but ultimately not included in the alternatives. These include fixed terms on QSSs, auctions, zonal management, and gear conversion, among others. These provisions and the reasons for the Council recommendations in regard to them are documented in Appendices A and B.

2.6 Rationale for the Council's Preferred Alternative (Alternative 4b)

The need for a change from status quo is identified in the problem statement. After reviewing the status quo situation and both the beneficial and adverse impacts of the trawl rationalization alternatives (as described in detail in Chapter 2, Chapter 4 and the appendices to this document), the Council's judgment was that the advantages of its final preferred alternative for trawl rationalization, Alternative 4b, outweighed the disadvantages in comparison to continuation with status quo management, the other trawl rationalization alternatives that were considered, and other proposals for modification of status quo (e.g., providing longer cumulative limit periods).

There are two primary drivers in the problem statement that guided this process: the first is the need to account for, control, and reduce bycatch, and the second is the need to provide for an economically sustainable fishery for the benefit of industry participants and fishery dependent communities. These needs are both reflected in the goal for this action:

*Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch.*⁴⁴

2.6.1 Trawl Focus

Foremost, this goal reflects the Council's understanding that trawl gear is the only gear that can viably harvest⁴⁵ much of the groundfish that is economically important to the fishery and important as a protein source to the broader public, i.e., it is the only gear that can be effectively used to remove much of the biomass that is available for harvest within conservation constraints. Therefore, the focus is on improving management of the trawl fishery rather than considering direct reallocation of trawl harvest to other gears. While the focus was primarily on improving management of the existing trawl fishery, the Council's action, both in its preferred alternative here, and in the intersector allocation amendment (Amendment 21), takes into account opportunities to reduce bycatch and other possible adverse environmental impacts

⁴⁴ "Bycatch" is defined in the Magnuson-Stevens Act as: "species of fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch-and-release fishery management program."

⁴⁵ "Viably harvest" can be explained in a couple of different ways. For some species, such as many species of sole and other flatfish, trawl gear is the only proven gear that can consistently harvest a quantity that approaches the allowable catch for those species. In other cases, the price per pound received is too low to justify the use of gear that takes species in lower quantities.

by moving some of the harvest toward nontrawl gears. In this action, the potential for movement toward nontrawl gears is accounted for through the scope of the program (which includes an opportunity for vessels with trawl permits to switch to nontrawl gears to take their quota). In addition, the intersector allocation decisions made in Amendment 21 favor nontrawl gears by basing the groundfish allocation on the historic periods most favorable to nontrawl gears, by truncating the trawl groundfish allocation at a maximum of 95 percent,⁴⁶ by imposing further reductions in the trawl allocation for a few other species, and by targeting a 50 percent reduction in the trawl bycatch of halibut.

2.6.2 *Bycatch Reduction Objective and Observer Coverage*

This action responds to the identified need for bycatch control and the need for conservation through its focus on individual accountability for catch and bycatch. At present, total mortality for all species is measured and controlled by monitoring total landings and sampling 20 percent of the trawl trips to estimate bycatch rates (discard rates) that are then applied to landings to develop an estimate of total catch and mortality. With this approach, there is substantially less certainty about total catch and mortality than there are total landings. Further, while agencies are able to regulate total landings in the nonwhiting trawl fishery through two-month cumulative limit periods and influence bycatch rates with catch area restrictions and gear restrictions, they face difficulties in managing for total catch in the nonwhiting portion of the trawl fishery. The fishery is a mixed stock fishery. When, despite best regulatory efforts, a fisherman encounters amounts of certain species that are in excess of the two-month cumulative landing limits, they may continue to fish for other target species, discarding the species for which they have reached their limit.⁴⁷ The current monitoring system was designed to provide fleetwide total catch estimates over the course of a year. It was not intended as a tool for managing individual vessel discards in the nonwhiting trawl fishery or for providing for individual accountability.

The Pacific whiting fisheries are different in that monitoring is in place that is intended to manage for total catch. The at-sea fisheries use 100 percent observer coverage on both catcher-processors and motherships and document landings and discards that are occurring in those fisheries. The shoreside whiting fishery is exploring the feasibility of cameras intended to verify full retention of catch on board vessels in that fishery. Through a full retention program, the documentation of total catch of species in that fishery occurs dockside.

The Council considered achieving individual accountability and improved mortality estimates through full retention rules in the nonwhiting fishery with compliance monitored through video cameras. However, the practicality of using cameras in the nonwhiting fishery is problematic because of the vessels' need to discard debris and prohibited species and the difficulty of monitoring holds for surreptitious catch sorting and discarding.

The other means identified for providing individual accountability for discarding is to require 100 percent observer coverage for vessels participating in the trawl sector. Full observer coverage, combined with a shift from regulating landings to regulating catch, is a key element of the Council's preferred alternative. These elements provide for individual accountability for catch and some incentive for bycatch reduction.⁴⁸

⁴⁶ For several species, trawl catch typically approaches 100 percent of the available harvest.

⁴⁷ These discards are incorporated into the observer estimates of discard mortality, but the fleet as a whole pays for this activity through reduced fishing opportunity; it impacts the vessel doing the discarding only through its impacts on the fleet as a whole.

⁴⁸ When vessels must stop fishing as soon as they reach their limit of a bycatch species, that provides an incentive to avoid bycatch, at least enough so the vessel is able to catch its target species quota.

2.6.3 Link between Bycatch Control and Need for Rationalization

Full at-sea monitoring and the switch from controlling landings to controlling catch would achieve the main conservation related objectives; however, 100 percent observer coverage for the nonwhiting fishery and observers/cameras for whiting catcher vessels would be costly. Even if the observers/cameras were not paid for by industry, there are still costs that a vessel incurs when it has an observer or camera on board. If vessels must pay for the cost of observers, then the burden is substantial, and it moves the fishery away from achieving social and economic objectives. As identified in the problem statement, the fishery is already under substantial economic stress. The 2003 buyback program improved the economic situation of fishing vessels after the groundfish resource disaster that was declared in 2000.⁴⁹ However, the fleet remained only marginally profitable, as illustrated in a study by Lian et. al. (2008). Imposing large additional costs to carry observers could devastate the fishery unless its overall economic health is also improved. Early on (in its strategic plan and Amendment 18), the Council identified rationalization as a way to improve the economic health of the fishery. Under a perfectly rationalized fishery, capacity would be reduced, and costs would be minimized so that the labor, capital, and other inputs used to capture the fish are no more than is absolutely necessary to fully take the amount that can be harvested while meeting conservation objectives. Thus trawl rationalization is viewed as a necessity for improving the health of the industry. Further, with 100 percent observer coverage, the Council would be able to better monitor total mortality of all groundfish species. Better mortality estimates would improve both stock assessments and the Council's ability to keep catch below the harvest limits developed based on those assessments, substantially contributing to conservation goals. Finally, rationalization based on a system that relies on transferable quotas enhances the incentive to avoid bycatch. Without transferable quota, the incentive is to reduce bycatch only to the point where all targeted species can be harvested. With transferable quotas, fishermen who can lower bycatch rates even further have a potential opportunity to sell their unused quota to others, thus benefiting from reducing their bycatch rate to a level lower than what was necessary for them to take their own available target harvest.

2.6.4 Choosing Between Status Quo and Trawl Rationalization: Broad-Level Council Concerns and Tradeoffs

When taking their preliminary and final actions, Council members noted the goal and eight objectives for the trawl rationalization program, as well as a number of related factors that were important considerations in developing their final recommendation. One important consideration was whether there was a potential for achieving some of the goals and objectives through other types of modifications to status quo. The Council considered whether modifications such as extending the duration of the two-month cumulative trip limit periods and a full retention requirement might achieve some of the important objectives. Extension of cumulative limit periods would decrease the Council's opportunity to make inseason adjustments and would be expected to increase the number of vessels taking their full limits. This would move the fishery in the direction of individual permit quotas without generating the degree of benefits expected from a regular IFQ program. However, extending the two-month cumulative trip limit reduces the number of opportunities the Council has for making adjustments to catch limits to stay within allowable catch levels, thus increasing the possibility of exceeding ABCs and OYs established by the Council. Extension of the length of the cumulative limit periods was an option that had been previously considered and rejected by the Council. For the whiting fishery, there is a need to end the derby because of safety and waste issues; however, the bioeconomics of the fishery does not lend itself to management through cumulative limit periods used in the nonwhiting fishery. While Amendment 15 has resolved some of these issues, the trawl rationalization program would implement a longer-term solution. The Council considered maximized retention in the Pacific whiting fishery, and NMFS is currently considering it for approval as regulations to implement Amendment 10 to the Groundfish FMP.

⁴⁹ The disaster was a result of the harvest reductions imposed to rebuild overfished stocks.

Maximized retention for the nonwhiting fishery was considered as a monitoring option under the IFQ program, but was rejected. The Council was not able to identify other ways to modify status quo that would be as effective as trawl rationalization in moving the fishery toward its most important goals and objectives (described above).

Under status quo, the trawl fishery is viewed as economically unsustainable due to the number of participating vessels, excess capacity, a regulatory approach that constrains efficiency, and the status of certain groundfish stocks along with the measures in place to protect those stocks. At the same time, there are both benefits and costs that have to be considered with respect to trawl rationalization. Regardless of the deficiencies of status quo management, the Council had to determine whether trawl rationalization, on balance, would be an improvement over status quo. In particular, the Council debated whether the economic benefits expected from increased harvest and efficiency would be sufficient and occur early enough in the program to help the fishermen handle the increased costs of the program. Some Council members expressed concern that markets for expanded harvest might take time to develop and that provisions to limit consolidation could also delay benefits. However, while most Council members shared concerns about these possibilities, the broadly held view was that the potential for improving the economics of the fishery through trawl rationalization was substantial enough to overwhelm the risks and uncertainties. Council members noted that, due to cumulative limit management, the amount of one highly marketable fish species that had gone unharvested in a recent year was nearly enough to alone cover observer program costs, and reported discard rates and wastage were unacceptable. Given the under-harvest of available OYs, the Council believed it was important to the fishermen and the public to provide an opportunity to achieve the OYs and develop markets for additional fish products. Furthermore, the program would provide the fishery an opportunity to increase profits, not just through harvest expansion, but also through a variety of mechanisms leading to cost reductions. For the nonwhiting fishery, an economically healthy fishery would also be expected to result in some improvement in safety. For the whiting fishery, an end to the derby would create substantial safety improvements.⁵⁰ In addition to the potential for safety and strong economic benefits, Council members noted the substantial conservation benefits expected from 100 percent monitoring of catch. This would help reduce bycatch and discards and rebuild stocks that are suffering partially because of discards.

While the trawl rationalization program would move the fishery toward some of its most important goals and objectives, in order for the program to realize those benefits, a large amount of consolidation would have to occur, resulting in fewer people employed in the fishery. Council members acknowledged and expressed concern about the expected consolidation and its impacts and noted the need to attend to the potential for disproportionate impacts on some communities. There was also concern that the potential accumulation of wealth under the IFQ program should have corresponding levels of benefit for the nation, and that state implementation costs be addressed. Finally, Council members expressed an interest in maintaining the character of the fleet and a diversified industry. Balancing the need for consolidation to generate adequate levels of benefit with the potential adverse impacts of consolidation was a major challenge. At the same time, continuation of status quo was having its own impacts, with both the buyback program and cumulative limits having caused significant consolidation in the fleet and a redistribution of vessels along the coast. Because of the high degree of concern about impacts on communities and maintaining some sharing of benefits (both among harvesters and between harvesters, processors, and others dependent on the fishery) the Council made a number of tradeoffs in the trawl rationalization program that may prevent the program from reaching the full degree of economic efficiency that might otherwise be achievable through rationalization. For example, accumulation limits would help disperse fishery benefits, but would inhibit consolidation. And some QS were set aside for use in adaptive management to address such objectives as community and processor stability, new entry,

⁵⁰ The catcher/processor sector is an exception because these issues have already been addressed through a self-designed and implemented co-op program.

conservation, and other unidentified/unforeseen adverse consequences. A number of other measures were also considered (documented in Appendices A and B) as the Council struggled to find a balance among sectors, states, vessels, ports, conservation obligations, and its responsibility to try to develop a regime that maximizes economic benefits while simultaneously realizing, recognizing, and honoring the social effects of its decisions.

In taking this action, the Council acknowledged that work will have to continue to monitor the program and to make adjustments in response to program performance. Even prior to implementation, the Council will continue to work on provisions for Community Fishing Associations (CFAs) and an AMP. While there may be unintended and unanticipated consequences, there will be an opportunity to modify the program through a review process, and a data collection process will be implemented to support that review.

Overall, the Council viewed the trawl rationalization program as addressing many of the difficult, time-consuming management problems it has struggled with under status quo. It is expected to provide a basic management framework that will provide the most benefits to the nation for the public resource, including assigning personal accountability for the fisheries, providing opportunities for bycatch reduction, enhancing stock rebuilding through improved fishery information and full observer coverage, providing opportunities to maximize catch of targeted species while protecting species of concern, improving economic performance, helping to maintain community stability, improving safety, guarding against local stock depletion, and addressing unforeseen circumstances through an innovative adaptive management provision. In sum, the Council views trawl rationalization as a program that will help address conservation concerns and take a system that is not economically viable for many and turn it into one that will work for those who remain in the fishery after rationalization.

2.6.5 Choice between IFQs and Co-ops for Each Trawl Sector

Having evaluated the potential of, and set aside, a number of other approaches to status quo and trawl rationalization, the Council focused most of its efforts on considering alternative designs of IFQ and co-op programs to rationalize the fishery. Under an IFQ program, each vessel acquires the quota necessary to prosecute its own fishing strategy, and each vessel is individually responsible to the fishery management agency for complying with the program and covering its harvest with quota. Under a co-op program, an allocation is given to the co-op and the co-op then distributes the allocation to its participating vessels. The co-op agreement and managers determine the amounts each vessel will harvest, and the vessels are responsible to the co-op for complying with the terms of the co-op agreement. In some cases, the allocation received by the co-op is determined by the history associated with each of the permit holders who are members of the co-op. The fishery management agencies do not track the transfer of harvest opportunity among co-op members, nor do they track each vessel's catch against allocations to that vessel. The fishery management agencies hold the co-op as a whole responsible for staying within its limits and the individual vessels responsible for complying with other aspects of the program, such as requirements to carry an observer.

The Council looked at rationalization for the four groundfish trawl sectors: nonwhiting shoreside, whiting shoreside, mothership whiting, and catcher-processor whiting. IFQs were considered for each fishery and co-ops were considered for each of the three whiting sectors.

2.6.5.1 Choice for the Shoreside Nonwhiting Sector

A co-op program was not considered for the shoreside nonwhiting fishery because the diversity of fishing strategies in which vessels participate and the geographic distribution of the shoreside fishery do not lend

themselves to the type of coordination and central operational management that is best facilitated by a co-op program. The whiting fisheries are more homogeneous in terms of fishing strategies, the timing of the fishery, and their geographic distribution. This homogeneity lends itself more to the type of centralized management provided by the co-op.

2.6.5.2 Choice for the Shoreside Whiting Sector

The shoreside whiting fishery is viewed as having greater homogeneity among participants than the nonwhiting fishery, but less homogeneity than the other whiting fisheries. In its preliminary preferred alternative, the Council considered the appropriateness of both IFQs and co-ops in this fishery and chose to specify dual preferred alternatives for the shoreside whiting fishery (IFQs or co-ops for whiting). In that action, it was noted that the Council lacked adequate authority to limit entry for processors or require a permit-processor linkage, both of which were part of the shoreside co-op alternative. Although processors are not part of harvest co-ops, both processor licensing and permit-processor linkages were considered key elements of the co-op alternative considered by the Council. These elements provided a way to maintain a balance of market power between harvesters and processors. Some also viewed processor linkages as a way to provide a central point for the sharing of information within co-ops that might tend to form around similar processors. Such information sharing may facilitate the avoidance of bycatch;⁵¹ however, it is not clear that processor linkage is needed to encourage such information sharing within the structure of a co-op. When it took final action on this issue at its November 2008 meeting, it was clear to the Council that moving ahead with trawl rationalization for the shoreside whiting fishery could most reliably occur through a shoreside program that did not include processor linkage (i.e., did not require Congressional action). Further, representatives of the harvesting and processing sectors reached a compromise agreement and recommended that under an IFQ program there be a 20 percent allocation of whiting QS to processors. This allocation to processors addressed concerns about the effects of trawl rationalization on market power balance between the harvesting and processing sectors. Also contributing to the decision to manage the shoreside whiting sector under IFQs was the opportunity that managing the two sectors together provided for resolving intersector allocation issues between them. The rationale for the 20 percent allocation of whiting QS to processors and the advantages of managing the shoreside trawl sectors together under a single IFQ program are discussed further below in the section on rationale for specific provisions of the IFQ program.

2.6.5.3 Choice for the Mothership Whiting Sector

For the mothership fishery, the Council had more latitude to consider regulating processors, since processing facilities in this sector are on vessels and, therefore, come under the Council's authority within the MSA. While the Council had authority to limit new entry for processing vessels, NOAA General Counsel advised the Council that absent a strong conservation rationale it would not have the authority to regulate economic relationships between vessels and processors that would otherwise be determined in the marketplace; i.e., the Council's authority to recommend processor ties was limited. On this basis, the Council developed a processor tie provision that only required a vessel to commit its production to a particular processor for the coming year and did not extend that obligation to any subsequent year. This requirement came about after hearing public testimony indicating that the absence of certainty regarding catcher vessel deliveries in the mothership portion of the Bering Sea pollock fishery nearly led to the bankruptcy of a mothership company engaged in that fishery. The declaration procedure is intended to

⁵¹ Under a co-op system, the vessels are bound together in a single entity in which the individuals have an interest in ensuring that the entity as a whole does not exceed bycatch limits prior to the time that its allocation of target species is taken. This creates an incentive for them to actively share information about high and low frequency bycatch areas with one another. In the midwater fishery in particular, such areas shift around with changing ocean conditions.

facilitate some business planning certainty to the mothership for the coming year. Even though the processor tie provision had to be severely weakened, the co-op alternative was still viewed as providing some balance of marketing power between mothership harvesters and processors, because it created an LE system for mothership processors, thereby strengthening their position vis à vis harvesters. The co-op alternative also had the advantage of encouraging vessels to work together and share information about catch rates through the co-op structure. Some savings in administrative costs were also expected because the co-op will track transfers of allocation among vessels, alleviating the need for NMFS to handle that task. Finally, some Council members voiced a preference for supporting industry participants by addressing their issues through co-op efforts and less governmental involvement. Under the IFQ program for the mothership sector, the issue of market power balance might have been addressed through an initial allocation of QS to processors (something like the 20 percent that was given to shoreside processors), but the IFQ program alternative did not include an LE system for mothership processors. Additionally, the IFQ program did not provide the incentive and structure for information sharing about bycatch. Finally, the mothership co-op alternative was originally developed through a consensus between the majority of mothership sector harvester and processor participants, and the participants in that consensus continued to support the co-op alternative, even with the substantially weakened processor tie provision.

Managing the mothership sector under an IFQ program would have provided an opportunity to reduce management costs and allocation controversy by combining the mothership and shore-based sectors under a single IFQ program. However, there were also concerns that vessels participating in the mothership sector might have an economic advantage over the traditional shoreside fleet and that if the catcher vessel fishery (shoreside and mothership catcher vessels) were managed under a single IFQ program the mothership catcher vessels might use that advantage to purchase more QS, redistributing harvest within the fleet and among communities, causing disruption and adverse social consequences.

2.6.5.4 Choice for the Catcher Processor Whiting Sector

The catcher processor sector of the whiting fishery is already rationalized under a self-developed co-op program, entered into voluntarily by the participants in that fishery. The self-designed program was initially facilitated by (1) a license limitation program, which created a barrier making it very expensive for new catcher-processors to enter the fishery, and (2) the Council's specification of a whiting allocation for the catcher-processor sector. The program was further supported by Amendment 15, which established a Pacific whiting vessel license based on historical participation. Implementation of Amendment 15 prohibits new entrants and, thereby, maintains the current structure and stability of the catcher-processor co-op. The Pacific whiting vessel license was intended to be an interim measure until the Council fully considered trawl rationalization. During the development of the preferred alternative (Alternative 4b), the Council expressed concern that the structure of the co-op could deteriorate, resulting in a derby fishery. Therefore, it specified that in the event the co-op failed the fishery would be managed with an IFQ program and that an equal amount of QS would be issued to each permit with a catcher-processor endorsement.

2.6.6 *Major Decisions in Designing the IFQ Program*

With respect to IFQs, the Council considered programs that would manage each trawl sector under a separate IFQ system, one that would manage the shore-based trawl sectors together, but the two at-sea whiting sectors separately, and one that would manage all four trawl sectors under a single program. Under the Council-preferred alternative (Alternative 4b), the Council chose IFQ management for the shore-based whiting sector and the nonwhiting shore-based sectors and recommended managing them together as a single shore-based trawl sector. Managing the shore-based trawl fishery as a single sector is expected to increase the likelihood that available harvest will be fully taken. If the shore-based trawl

sector were managed as two separate IFQ programs, the Council would have to allocate nonwhiting species taken incidentally in the whiting fishery to the shore-based whiting sector and nonwhiting trawl sectors. If the incidental catch allocations the Council provided to the shore-based whiting sector were not sufficient to allow the sector to take all of its whiting allocation, there would be no way for the shore-based whiting sector to acquire additional nonwhiting quota to cover its incidental catch, and whiting would go unharvested. At the same time, if the shore-based whiting sector were allocated more than the amount it needed to cover incidental catch, there would be no mechanism to move the excess back to the nonwhiting shore-based trawl fishery for its use, and the excess allocation would go unharvested. By managing the shore-based trawl sectors together under a single IFQ program, there is an increased likelihood that the market place will overcome constraining species issues as quota holders buy and sell quota to whomever can put it to best private use (i.e., to whomever is willing to pay the highest price for it).

Deciding on the groups which would receive an initial QS allocation was another major decision for the Council. One of the primary issues debated extensively was whether to give an initial allocation of QS to processors and, if so, in what amount. During Council discussion, it was noted that the MSA LAPP provisions in Section 303A(5) require that the Council ensure fair and equitable initial allocations, including consideration of (1) current and historic harvests, (2) employment in the harvesting and processing sectors, (3) investments in and dependence on the fishery, and (4) the current and historical participation of fishing communities.

Congress specifically instructed the Council to fully analyze alternative program designs, including allocation of LAPs to harvest fish to fishermen and processors. Much of the Council's discussion about an allocation to processors revolved around the impact of both status quo and trawl rationalization on market power. It was noted that the U.S. economy relies on competition and on individuals and businesses acting in their own self interest for growth, innovation, price setting, and the allocation of resources. There was a sentiment that government should not interfere in business competition unless it is necessary for the public benefit. It was noted that the Council interferes with harvesting businesses because of problems identified relative to conservation and management both in the nonwhiting and whiting fishery. When the Council intervenes in harvesting, it cannot help but also interfere with the processing businesses by changing the basic bargaining dynamics in the raw fish product market. While ex-vessel price negotiations have to be left to the harvesters and processors, the Council believed it could not ignore how fishery management actions might influence those negotiations. Some Council members opposed any allocation to processors on the grounds that they believed it would have an adverse effect on market power (increasing market power for processors) and that there were ways to address concerns about community stability other than by allocating to processors. They noted that even if processors received no QSs, after initial allocation, processors would likely be in a position to acquire additional shares and achieve the balance of power they want. The real issue of concern in this regard may be the control limits to ensure that the balance does not get out of hand. Others were concerned about small processors and expressed concern that not to allocate to processors might cause more consolidation and a further decline in the number of buyers, increasing the power of remaining processors.

In its preliminary preferred alternative, the Council recommended giving processors 20 percent of the shore-based allocation of QSs for all species except bycatch taken in the shore-based whiting fishery. Council members noted the difficulty of determining the correct percentage for a possible QS allocation to processors. The option for a 50 percent allocation of whiting QSs to processors seemed like far too much. When a 20 percent option was proposed, some Council members believed that when the 20 percent allocation to processors was combined with a 10 percent allocation for adaptive management, and considering that some processors would receive QSs for the permits they hold, the amount remaining for harvesters would be insufficient. In selecting its preliminary preferred alternative, Council members noted that the case for providing QSs to whiting processors seemed to be relatively clear but it was less

clear for nonwhiting processors. For whiting processors, the switch from a derby fishery would immediately result in some of the processing capacity becoming surplus. The shift from two-month cumulative trip limits periods to IFQs would not affect the nonwhiting processors in the same way. However, with respect to nonwhiting processors there was concern for small processors' ability to compete with larger processors. The 20 percent approach chosen for the preliminary preferred alternative was believed by some to be a fair middle ground for public review and comment.

In its final preferred alternative, after further review of the analysis and public testimony, the Council recommended giving processors 20 percent of the Qs only for shore-based whiting and no Qs for shore-based nonwhiting. In taking this action, Council members expressed their concern that an initial allocation of Qs to nonwhiting processors would add too much to the market power of shore-based nonwhiting processors. They noted that there was already considerable consolidation among processors, particularly relative to the number of vessels operating in the fishery. Providing processors with an initial allocation would be expected to further increase consolidation and market power. Additionally, the argument that the larger processors also held vessel permits, which would provide them with QS, held more sway. At the same time, Council members continued to be concerned with the impact of the program on smaller processors. It was noted that if an allocation of nonwhiting Qs to processors were to be made the appropriate amount might be 10 percent of the Qs. Instead the Council favored providing a 10 percent allocation for adaptive management. The AMP could be used not only to provide some amount of certainty and security to the larger processors, but also to provide flexibility to tailor a program that would provide some protection to smaller processors. In making its decision, the Council specified its intent that the AMP be constructed in a manner to ensure that the program accomplishes this as one of its objectives.

With respect to the decision to allocate 20 percent of the whiting Qs to processors, differing conditions between the whiting and nonwhiting sectors were noted. In particular, it was noted that the size of the shore-based whiting fleet was expected to be very small (only 20 vessels), providing the fleet with greater market power relative to the three major whiting buyers than would be experienced by the nonwhiting fleet relative to the major buyers of nonwhiting species. While the shore-based whiting fleet position would be strong, the analysis indicated that with the move from a whiting derby fishery to an IFQ program the amount of processing capital needed in the whiting fishery would decline by 30 to 50 percent⁵² and that competition among whiting processors would tend to increase to continue to attract deliveries to their facilities, leading to a decrease in their market power. In contrast to whiting, the nonwhiting trawl fishery is not a derby-style system; it is managed with two-month cumulative trip limits. Therefore, the shift to IFQs will not create a sudden increase in the amount of excess processing capacity. Even with a 20 percent allocation of whiting Qs to processors, the Council believed it may be uncertain whether the initial allocation of whiting Qs to processors will offset whiting harvester gains in market power, relative to status quo. An initial allocation of whiting Qs to processors functions as a means of guaranteeing supply for processors, granting processors some leverage in bargaining power as they can hold out against harvesters, and providing an incentive to make necessary capital investments to increase product recovery yield.

Consideration was also given to allocating Qs to communities and crew members. As discussed above with respect to the Council consideration of CDQs, up to the very end of the Council's deliberations, communities expressed no interest in receiving an initial allocation of Qs. Therefore, the Council developed other mechanisms to address concerns about communities, including, but not limited to, the AMP, a two-year moratorium on QS transfers, a five-year review that includes a community advisory

⁵² Processors invest in excess capacity to compete with other processors for deliveries by being able to handle peak volumes during the derby fishery. When the derby is over, much of the capital then remains idle. The move to an IFQ program will slow the pace of the fishery resulting in substantial unneeded processor capital.

committee, accumulation limits and a two-year review of some of the limits, the opportunity for communities to receive an initial QS allocation by acquiring a trawl permit, and a trailing action on CFAs. With respect to crew members, an initial allocation is difficult because there is limited historic information on the identity of crew members who have fished on trawl vessels. It is the Council's hope that by providing highly divisible QSs and ensuring that other elements of the program design facilitate crew ownership of QS, that crew members who want to do so will be able to incrementally accumulate QSs. As an example of specific consideration of crew, during GAC discussions, it was proposed that QSs be tied directly to particular vessels. This was rejected because it would have required a complex tracking system if crew members were to be able to hold and independently direct the disposition of their QSs. Initial allocation to community and crews and other provisions benefiting both are discussed further in Chapter 4 and Appendix A.

2.6.7 Major Decisions in Designing the Co-op Program

The most important and broadly controversial elements of the mothership co-op program design were the processor tie provisions and LE for mothership processors. These issues were covered above in the discussion of the Council's decision on whether to go with IFQs or co-ops for each of the whiting sectors. Decisions such as allocations for communities or crew are not usually elements of a co-op alternative because co-op formation relies on cooperation among vessels. Additionally, while it might be feasible to design a system that would provide allocations to others (e.g., communities) that would then use that allocation by joining a co-op, the processing elements of the at-sea fishery are generally tied to major population centers in Puget Sound that are substantially less dependent on the fishery. As with IFQ, a community that wants to secure involvement in the fishery could purchase a permit endorsed for participation in an at-sea whiting fishery; however, the amount of economic activity that would be secured through keeping the catcher vessel based in the community (without the accompanying processing activity) would probably not make such acquisitions worthwhile, because the delivery and processing activity occurs at sea. Also, as with IFQ, elements such as accumulation limits ensure some dispersion of benefits among multiple catcher vessels, increasing the probability that there also may be some dispersion of economic benefits among multiple communities.

For the catcher-processor co-op program, one of the most controversial design elements was the decision whether the catcher-processor co-op would be issued a permit. When the Council developed its preliminary preferred alternative on this issue, there was extensive debate on the question of whether the catcher-processor co-op would be designated as a LAPP and subject to a 3 percent fee. Some Council members opposed such a designation on the grounds that the Council's preferred alternative would not generate substantial new administrative costs or fleet benefits for the catcher-processor fleet. On the other hand, it was argued that the catcher-processor fleet would benefit from the bycatch control mechanisms that were being implemented for other trawl sectors as part of the trawl rationalization program, that they would benefit from being part of the overall LAPP system, that they were being given exclusive access to a public resource, and that their exclusive access is what enabled them to develop their own co-op. With respect to the argument that the catcher-processor sector would benefit from bycatch control provided by rationalization in other trawl sectors, other Council members felt that the catcher-processor sector should not have to pay the cost for regulations needed to clean up a problem in another sector. The Council was advised that if it provided an allocation for the co-op and required a co-op permit, then the program would be a LAPP. On this basis, in June 2008, the Council voted not to require permits for co-ops. This intent was carried through when adopting the final preferred alternative in November 2008 and June 2009. As part of the process of reviewing proposed regulations for program implementation and determining them to be necessary and appropriate ("regulatory deeming"), the Council reconsidered this issue and changed its position at its March and April 2010 meetings. At the March 2010 meeting, the Council gave public notice that it would reconsider the requirement for co-op permits; at its April 2010 meeting, the Council

agreed that the regulations should include the co-op permit requirement. NMFS indicated that the Council will participate in subsequent deliberations on formulating cost recovery provisions. Through that process, the Council may determine what aspects of program cost may be attributed to a given fishery sector.