

5.0 Consistency with the Groundfish FMP and Magnuson-Stevens Act National Standards

5.1 Consistency with the Groundfish FMP

The groundfish FMP goals and objectives are listed below. The way in which the alternatives address each objective is briefly described.

Objective 1. Maintain an information flow on the status of the fishery and the fishery resource which allows for informed management decisions as the fishery occurs.

Alternative 1 (status quo/no action) employs the same data sources that have been used in past years to monitor groundfish fisheries. In addition, data from the first year of the NMFS observer program (August 2001 to August 2002) became available in early 2003 and were used for inseason management. In particular, observer data were used to determine more accurate bycatch rates for overfished species, which were used to develop management measures for 2004. A vessel monitoring system for the limited entry fishery went into effect January 1, 2004, providing real-time location information on participating vessels. These information sources would also apply to all the alternatives. However, Alternatives 4, 5, 6 and 7 would require changes to the observer program. Alternatives 4 and 7 would modify the observer program so that all sectors would be monitored throughout the year, and a higher percentage of commercial vessels would be monitored. In addition, observer reporting would be accelerated to make data available for inseason management. Alternatives 5 and 6 would expand the monitoring program so that all limited entry vessels would be monitored whenever fishing for groundfish, and perhaps at other times as well (for example, if fishing for pink shrimp).

Goal 1: Conservation.
Prevent overfishing and rebuild overfished stocks by managing for appropriate harvest levels and, to the extent practicable, prevent any net loss of the habitat of living marine resources.

Objective 2. Adopt harvest specifications and management measures consistent with resource stewardship responsibilities for each groundfish species or species group.

None of the alternatives would modify the current procedures for determining harvest specifications. Under each alternative, harvest specifications would emphasize rebuilding overfished stocks. Bycatch mitigation tools would be used to ensure the rebuilding goals and objectives were achieved. Alternatives 1, 2 and 3 would emphasize traditional management measures to mitigate bycatch. Alternatives 4 and 7 would establish catch/mortality limits for each sector of the groundfish fishery, which would make each sector more directly accountable for

its overfished species catch and bycatch mortality. In addition, those alternatives would provide incentives for individual vessels to provide observer coverage of all their fishing activities in conjunction with catch limits and more traditional management tools. Alternatives 5 and 6 would establish individual fishing quotas in conjunction with greatly expanded monitoring of catch and bycatch. Alternative 5 also raises the possibility that other management restrictions might be relaxed because those restrictions might prove to be redundant and unnecessary for fully-observed vessels with catch limits.

Objective 3. For species or species groups that are overfished, develop a plan to rebuild the stock as required by the Magnuson-Stevens Act .

All of the alternatives would maintain the policy of risk averse harvest levels for overfished species.

Objective 4. Where conservation problems have been identified for non-groundfish species, and the best scientific information shows the groundfish fishery has a direct impact on the ability of that species to maintain its long-term reproductive health, the Council may consider establishing management measures to control the impacts of groundfish fishing on those species. Management measures may be imposed on the groundfish fishery to reduce fishing mortality of a non-groundfish species for documented conservation reasons. The action will be designed to minimize disruption of the groundfish fishery, in so far as consistent with the goal to minimize the bycatch of nongroundfish species, and will not preclude achievement of a quota, harvest guideline, or allocation of groundfish, if any, unless such action is required by other applicable law.

This objective may be inconsistent with the Sustainable Fisheries Act mandate to reduce bycatch to the extent practicable. The objective was intended to limit restrictions on groundfish fishing that would primarily be intended to make more halibut and non-ESA salmon available to directed fisheries for those species. That is, the Council did not want to restrict groundfish fishing for non-groundfish allocation reasons. However, non-groundfish species include turtles, corals, sponges and many other species of fish that may be affected by groundfish fishing activities. Alternatives 1-5 specifically address bycatch of groundfish species and collection of information about bycatch of other species. Alternative 6 would establish a higher priority to mitigate bycatch of non-groundfish species through no-take marine reserves and restriction of on-bottom fishing gears.

Objective 5. Describe and identify EFH, adverse impacts on EFH, and other actions to conserve and enhance EFH, and adopt management measures that minimize, to the extent practicable, adverse impacts from fishing on EFH.

The use of MPAs under all alternatives will reduce EFH impacts to by eliminating many groundfish fishing-related impacts in those areas. Alternative 5 could

reduce reliance on area management of groundfish fishing activities, while Alternative 6 would establish no-take reserves that would reduce all groundfish fishing-related impacts within whatever boundaries might be established. Redistribution of effort into open areas could intensify fishing effort in some areas under all the alternatives. Alternatives 5 and 6 would likely result in fewer vessels participating in the fisheries as an effect of rights-based management. In addition to the MPAs included in Alternatives 1-5, bottom trawlers are currently required to use small footropes shoreward of GCAs. This tends to lessen impacts in rocky areas of the continental shelf, which is preferred habitat for some overfished groundfish species.

Objective 6. Attempt to achieve the greatest possible net economic benefit to the nation from the managed fisheries.

Goal 2: Economics.
Maximize the value of the groundfish resource as a whole.

Calculating net costs and benefits (including the imputed value of non-market costs and benefits) and the present value of all future net benefits would be the best way to measure overall net benefit. Because of the programmatic nature of this EIS, and the absence of data for such analysis, no quantitative analysis is attempted. The elements of such an analysis are identified and described in Chapter 4. Due to the overfished status of several groundfish stocks, and reduced abundance of others, the net economic benefit from the groundfish fisheries will remain far below the gross value for the foreseeable future. There is no directly comparable measure of the conservation benefits of the alternatives (such as net present value of future harvests), so it is not possible to determine if any of the other alternatives would achieve the greatest possible net economic benefit. However, all the program alternatives fall within a management framework intended to achieve maximum sustained yield over the long term. This gives greater latitude for future decision making to achieve maximum economic net benefit. Although net present value of future benefits cannot be measured, Alternatives 1, 2 and 3 would appear most likely to result in higher short term revenues than Alternatives 4, 6 and 7. By establishing a rights-based management program and potentially relaxing redundant management measures, Alternative 5 would be the most likely to increase net benefits most quickly. Although Alternative 6 would also establish a rights-based management program, application of no-take marine reserves would tend to reduce the potential economic efficiency gains for an extended period. That could be compensated in the longer term by increased biological productivity and/or production that results from eliminating human interference within the reserves.

Objective 7. Identify those sectors of the groundfish fishery for which it is beneficial to promote year-round marketing opportunities and establish management policies that extend those sectors' fishing and marketing opportunities as long as practicable during the fishing year.

None of the alternatives explicitly identifies particular sectors for which a year-round fishery may be beneficial. Alternatives 1 and 2 simply maintain the current year-round fishery for all sectors, using two-month cumulative limits.

Alternatives 3, 4 and 7 could be managed to distribute sector-by-sector effort across the year. However, Alternatives 5 and 6 specifically allow the market to determine the distribution of groundfish deliveries over the year and thus may come closest to achieving this objective.

Alternatives 1, 2, 4, 5, 6 and 7 would maintain the priority for year-round commercial fisheries, bearing in mind that individual fisheries, such as the directed fixed gear sablefish fishery, are seasonally constrained. Given low harvest specifications for some overfished species, however, actual harvests may result in early attainment of a particular specification, necessitating the closure of particular fisheries. Alternative 2, by reducing effort, would be expected to improve the likelihood of year round fishing. Alternative 3 specifically reduces the priority of that objective. Alternative 5, by replacing seasonal constraints with market-based opportunities, would be expected to promote year-round fishing.

Objective 8. Gear restrictions to minimize the necessity for other management measures will be used whenever practicable.

Alternatives 1, 2, 4, 5, 6 and 7 would continue the reliance on gear restrictions to minimize bycatch to the extent practicable. Alternatives 1, 2 and 3 would rely on gear restrictions in combination with trip limits. Alternatives 4 and 7 in combination with both retention and catch limits, and Alternative 6 in combination with vessel catch limits would also rely on gear restrictions. Alternative 5 would relax reliance on gear restrictions and provide incentives for vessels to adopt their own best practices to reduce bycatch, including using different gear configurations and types. Under all the alternatives, a portion of the OY for certain species could be allocated to vessels fishing under EFPs. Some of these EFPs are being used as a means to test new gear configurations that reduce bycatch of overfished species. Under Alternatives 4 and 7, a portion of the OYs for certain species could be made available to vessels and sectors with low bycatch rates as additional incentive to reduce bycatch.

Objective 9. Develop management measures and policies that foster and encourage full utilization (harvesting and processing) of the Pacific Coast groundfish resources by domestic fisheries.

There has been no foreign fishing on the West Coast for more than a decade, so all of the alternatives meet this objective.

Objective 10. Recognizing the multispecies nature of the fishery and establish a concept of

Goal 3: Utilization.
Achieve the maximum biological yield of the overall groundfish fishery, promote year-round availability of quality seafood to the consumer, and promote recreational fishing opportunities.

managing by species and gear or by groups of interrelated species.

Bycatch mitigation tools under each programmatic alternative would address groundfish species groups and relationships in time and space. Alternative 5 would establish a program where individual fishers would be responsible for self-managing their activities to achieve their harvest goals, rather than the Council and NMFS dictating how it should be done. Alternative 6 could be interpreted as expanding management of the groundfish fishery to take into account non groundfish species as well. The focus on establishment of MPAs would be intended to address broader ecosystem issues and to reduce deleterious impacts on a broader spectrum of marine life.

Objective 11. Strive to reduce the economic incentives and regulatory measures that lead to wastage of fish. Also, develop management measures that minimize bycatch to the extent practicable and, to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. In addition, promote and support monitoring programs to improve estimates of total fishing-related mortality and bycatch, as well as those to improve other information necessary to determine the extent to which it is practicable to reduce bycatch and bycatch mortality.

Alternatives 1, 2 and 3 continue the reliance on trip limits to control bycatch and bycatch mortality. However, trip limits rely on regulatory bycatch (discard) and may contribute to economic discard as well. Alternatives 2 and 3 are intended to increase the size of trip limits, which would be expected to reduce regulatory bycatch. Catch limits, as proposed in Alternatives 4, 5, 6 and 7, provide much stronger incentives to avoid take of non-target species and to increase the utilization of all fish that are caught. Alternative 5 would establish a rights-based management program to mitigate bycatch, removing many of the economic incentives (and requirements) to discard. This alternative is the most consistent with Objective 11, especially if other fishing restrictions were lifted that might increase regulatory and/or economic bycatch. The expected result would be that vessels would have greater incentive to avoid take of non-target species and also to increase their use of all fish they catch. Alternative 7 provides a similar opportunity for commercial limited entry vessels to obtain individual catch limits for overfished species and larger trip limits of other species if they voluntarily pay for observer coverage. Thus Alternative 7 (as well as Alternative 4) is also more consistent with this objective than the other alternatives. While these alternatives do not provide some benefits of IFQs (such as transferability), they may be more practicable because they would not require establishment of a 100% mandatory observer program. However, because the provision would be voluntary, the bycatch mitigation effects would be less than Alternatives 5 and 6.

Objective 12. Provide for foreign participation in the fishery, consistent with the other goals to take that portion of the OY not utilized by domestic fisheries while minimizing conflict with domestic fisheries.

This objective is no longer relevant, since all stocks are fully utilized by domestic fishers.

Objective 13. When conservation actions are necessary to protect a stock or stock assemblage, attempt to develop management measures that will affect users equitably.

Alternative 5 would establish a market-driven quota program. The Council and NMFS role would be to determine the initial allocation of fishing privileges and establish the rules and process for the market to operate. Thereafter, the market would largely determine what is equitable. Alternatives 1, 2, 3, 4 and 7 would continue reliance on the Council public process for determining equitability on a case-by-case basis. Alternative 6 would likely be some combination of the two approaches.

Objective 14. Minimize gear conflicts among resource users.

This objective initially referred to conflicts between fixed-gear and trawl gear use of certain fishing grounds; it has also been more broadly applied to other conflicts. Alternatives 4 and 7 would establish sector allocations of the most limiting species. In the short term, this would increase allocation debates and conflicts until those allocations were established, and could result in ongoing conflicts if the allocations were subject to annual or biennial revision. Once established, these sector caps would insulate each sector from competitive pressures from other sectors. This would tend to reduce the “race for fish” and reduce disincentives to take actions to reduce bycatch, further reducing conflicts among users. Similar to Alternatives 4 and 7, Alternatives 5 and 6 would require initial catch allocation between user groups that would likely be controversial. Alternatives 5 and 6 would establish a market system that would provide a means for users to resolve conflicts over the longer term.

Objective 15. When considering alternative management measures to resolve an issue, choose the measure that best accomplishes the change with the least disruption of current domestic fishing practices, marketing procedures, and the environment.

Alternatives 1 and 3 are the most similar to current fishing conditions, but also do the least to improve the current situation. Alternative 2, by further reducing the number of trawl participants, would improve conditions for those remaining in the fishery. Alternatives 4 and 7 would establish trip limits by sector (similar to the status quo) but would make each sector more accountable for bycatch reduction. In the longer term, this could be refined to rely more on individual vessel or sector catch limits for fully-monitored vessels and sectors. Alternative 5, by establishing an IFQ program, would be expected to provide the best long-term opportunities for the industry as a whole. However, it is likely an IFQ program would result in further consolidation of the commercial fleet by reducing the

number of small or inefficient vessels. Alternative 7 supports development of IFQ programs “where appropriate,” which could exempt certain vessels or groups from IFQs, full observer requirements, and other provisions that might adversely affect them more than larger vessels.

Objective 16. Avoid unnecessary adverse impacts on small entities.

Adverse impacts on small entities continue to occur under *status quo* management and are unavoidable in the short-term. Alternatives 2 and 3 are most similar to the current bycatch mitigation and management programs and will thus have the least effect (both beneficial and adverse) on small entities. Alternatives 4, 5, 6 and 7 would have greater short-term adverse effects but result in more beneficial long-term effects. Alternative 5 is predicted to provide the greatest benefit to small entities over time by reducing government regulatory constraints and allowing market-driven solutions. However, rights-based management would be more likely to eliminate some small entities from the groundfish fishery and the industry becomes more consolidated. The smallest vessels that cannot efficiently carry an observer would likely be the most disadvantaged by observer requirements. Alternative 6 would impose substantial constraint on fishing locations (due to marine reserves), and those changes would be more permanent.

Objective 17. Consider the importance of groundfish resources to fishing communities, provide for the sustained participation of fishing communities, and minimize adverse economic impacts on fishing communities to the extent practicable.

The impacts of all the alternatives on communities are evaluated in Section 4.4. Adverse impacts on West Coast fishing communities continue to occur under *status quo* management. Alternatives 2 and 3 are most similar to the current bycatch mitigation and management programs and will thus have the least effect (both beneficial and adverse) on fishing communities. Alternatives 4, 5, 6 and 7 would have greater short-term adverse effects but result in more beneficial long-term effects; Alternative 5 is predicted to provide the greatest benefit to communities over time by reducing government regulatory constraints and allowing market-driven solutions. However, rights-based management would be more likely to redistribute benefits among fishing communities; this could result in some communities losing their reliance on groundfish fishing. Small, isolated communities with less fishing infrastructure or a higher cost structure would be the most likely affected. Establishment of community quotas under Alternatives 5 or 6 could mitigate these effects at the cost of overall economic efficiency. Alternative 6 would impose substantial constraint on fishing locations, due to implementation of marine reserves, and those changes would be more permanent. Fishing communities near marine reserves would bear the heaviest impacts of them due to increased travel costs for reaching fishing grounds.

Objective 18. Promote the safety of human life at sea.

Smaller vessels may be the least mobile and may be at greater risk in severe weather conditions. Those vessels are most affected by current MPAs (Alternatives 1-4 and 7), in that they may have to travel farther offshore to reach open fishing areas. Alternative 5 provides the option of reducing the use of MPAs, as bycatch and overfishing concerns would be addressed through the quota program. Alternative 6 would establish no-take marine reserves that would tend to increase the risk for those vessels home-ported nearby. The rights-based management established by Alternatives 5 and 6 would tend to reduce safety risks by allowing vessels more choice of fishing conditions.

5.2 Consistency with Magnuson-Stevens Act National Standards

An FMP or plan amendment and any pursuant regulations must be consistent with ten national standards contained in the Magnuson-Stevens Act (§301). These are:

National Standard 1 states that conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

The program alternatives would all reflect harvest rates below the overfishing thresholds and include precautionary reductions to rebuild overfished stocks and other stocks that, while not overfished, are at a biomass below the level necessary to produce MSY. Alternatives 4, 5, 6 and 7 would require modifications to the Observer Program. Alternatives 4 and 7 require faster data compilation for inseason application. Alternatives 5 and 6 would expand coverage to all limited entry vessels. These latter alternatives would thus more accurately measure total groundfish catch and reduce the likelihood that any overfishing would occur (or go unnoticed).

National Standard 2 states that conservation and management measures shall be based on the best scientific information available.

Each of the program alternatives would be expected to rely on the best scientific information available. However, those alternatives that would expand the extent of monitoring would improve the amount and quality of information. Alternatives 4 and 7 would provide incentives for vessels to pay for observer coverage. Over time, to achieve best results of sector management, Alternatives 4 and 7 would require increased observer coverage to verify catch and bycatch (groundfish discard) rates inseason. Alternatives 5 and 6 would require 100% monitoring of the commercial limited entry fisheries and expand monitoring of other fisheries, thereby resulting in the greatest improvements.

National Standard 3 states that, to the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

Under the no action alternative (Alternative 1), groundfish are managed through a combination of individual and multispecies units. These units are managed throughout the region covered by the FMP. However, any stock is not necessarily in the same condition over its range, due to environmental, ecological and fishery-related influences. In some cases, the current bycatch mitigation program uses the best scientific information available to address different conditions or species distributions. This approach is carried forward into all the alternatives.

National Standard 4 states that conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishers, such allocation shall be (A) fair and equitable to all such fishers; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

None of the alternatives would discriminate between residents of different states. Under all the program alternatives, management measures would continue to be developed through the Council process, which facilitates substantial participation by state representatives. Generally, state proposals are brought forward when action alternatives are crafted and integrated to the degree practicable. Alternatives 4, 5, 6 and 7 would allocate specific shares or privileges to individuals or corporations with the specific intent to promote conservation through individual accountability for catch and bycatch. When allocating such shares, the Council and NMFS would need to ensure consistency with this National Standard.

National Standard 5 states that conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

Current and previous bycatch mitigation measures in the groundfish fishery have not been designed specifically for the purpose of efficient utilization. To the contrary, many have been intended to reduce efficiency in order to prevent overfishing and achieving other management objectives. Alternative 2 would improve efficiency by further reducing the number of commercial trawl participants, resulting in larger average individual vessel catch levels. Alternative 3 would tend to increase harvest efficiency by increasing the size of trip limits, but would result in less efficient use of processing capacity. Alternatives 4 and 7 would promote efficient harvest of healthy stocks while placing more stringent limits on catches of overfished groundfish stocks. Alternative 7 moves towards development of rights-based management by authorizing non-transferrable catch

limits on a voluntary basis. Alternative 5 would promote efficiency above all the other alternatives by establishing a rights-based, market-driven program and relaxing restrictions that contribute to inefficiency. Alternative 6 would achieve some of the advantages of a rights-based program but would continue the use of bycatch mitigation tools that tend to reduce efficiency.

Lower OY levels and other restrictions are likely to result in further fleet capacity reduction as fishing becomes economically unviable for more vessels. There is broad consensus that capacity reduction in some sectors is needed to rationalize fisheries. A capacity reduction (buyback) program for the limited entry groundfish trawl fleet has been approved, resulting in retirement of an estimated 92 permits and vessels while compensating owners of retired vessels. Further fleet consolidation may be necessary to achieve a profitable, efficient fishery.

National Standard 6 states that conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources and catches.

Under the current bycatch mitigation program (Alternative 1), management measures reflect differences in catch, and in particular bycatch of overfished species, among different fisheries. Alternatives 1, 2 and 3 would continue the traditional approach of calculating and predicting trip limits to address such variations and contingencies. Alternatives 4 and 7 would take a step towards this by grouping similar vessels into sectors while providing ways to gain autonomy from sectors. This would allow individual fishers to address some of these variations and contingencies by establishing individual catch limits for overfished species and increasing trip limits for healthier stocks, contingent on individual vessel monitoring. Alternatives 5 and 6 further assign individual opportunity, responsibility and accountability; through individual catch quotas, vessels would have the means to modify their activities to address the full range of harvest opportunities. Alternative 6 would continue to apply bycatch mitigation tools that would restrict the ability to account for variations among, and contingencies in, fisheries, fishery resources and catches.

The Council and NMFS have worked with the States of Washington, Oregon and California to manage non-groundfish fisheries to minimize bycatch of overfished groundfish species. None of the proposed program alternatives would modify that approach.

National Standard 7 states that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The current groundfish management program has become extremely complicated for all involved fishery participants, management entities, and interested public. This is due in large part to the programmatic decision to minimize reliance on inseason monitoring of fishery catch, relying instead on monitoring retention levels. Alternatives 1, 2 and 3 continue this program approach. Alternative 4 would increase reliance on catch monitoring and the use of real-time catch data during the season, rather than post-season. This would come at increased costs to individual vessels, NMFS, or both. Alternatives 5 and 6 would establish 100% monitoring of all commercial limited entry vessels and other commercial fishing vessels. Monitoring programs that emphasize the use of fishery observers and implementation of a vessel monitoring system increase management costs but are necessary for effective management. Alternative 5 would emphasize more intensive and extensive fishery observation, reducing the need for other bycatch mitigation measures related to overfished groundfish stocks. Alternative 6 would tend to increase duplication by retaining much of the current bycatch mitigation program, increasing the level of monitoring, and closing large areas to reduce the potential for observed and unobserved bycatch.

National Standard 8 states that conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

Generally, there are tradeoffs between allowing fishers and communities to access healthy, harvestable stocks and minimizing catch of overfished stocks. The alternatives address these tradeoffs differently. Alternatives 1, 2, 3 and (to a lesser extent) 4 and 7 would continue the approach of assessing and resolving these tradeoffs through the Council public process on an ongoing basis. Under Alternative 5, the Council and NMFS would establish the basic policies, procedures and parameters of an IFQ program and thereafter allow market forces to determine sustained participation of fishing communities. This approach has both advantages and risks. The risk is that communities that may be less well-suited for groundfish fishing may see their participation reduced. Under the other alternatives, political intervention through the Council process could forestall such changes. However, that would undoubtedly be at the cost of some other objectives, such as efficiency, fairness, or overall management stability.

National Standard 9 states that conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

Each of the programmatic alternatives directly addresses this National Standard. Alternatives 1, 2, 3 and, to a lesser extent, 4 and 7 would do this from a command-and-control approach. Alternative 6 also would continue this approach, increasing the emphasis on reducing bycatch and bycatch mortality to levels approaching zero. Alternative 5 (and to a lesser degree Alternatives 4 and 7) would replace command-and-control with individual accountability, setting bycatch mortality limits for every commercial limited entry vessel. Under Alternatives 4 and 7 this would be voluntary. Thus, Alternatives 4 and 7 would fall between Alternatives 1-3 and Alternative 5. Alternative 6 would likely result in the greatest reduction in bycatch and bycatch mortality at the highest cost to the nation (i.e., costs to fishers and public management costs).

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

Alternatives 1, 2, 3, 4 and 7 would continue reliance on MPAs as a primary bycatch mitigation tool, which could affect safety if more vessels elect to fish seaward of the closed areas and are more exposed to bad weather conditions. Implementation of a vessel monitoring system capable of sending distress calls would mitigate this safety issue. Alternative 4 and 7 would establish individual vessel catch allowances for overfished species, in combination with larger trip limits for other species, enabling participating vessels more flexibility to choose when to fish. Alternative 5 would further increase that flexibility and allow vessels to choose to operate during the best weather conditions. Also, by reducing reliance on area closures and gear restrictions, vessels would likely find fishing opportunities nearer shore than the current RCA seaward boundaries. Alternatives 4 and 7, if trip limits or individual vessel catch limits were not included, would tend to accelerate the race for fish as vessels would attempt to maximize their catches before their sector limit is reached.