

Toward Rebuilding America's Marine Fisheries

ANNUAL REPORT TO CONGRESS
ON THE
STATUS OF U.S. FISHERIES—2001

As mandated by the Sustainable Fisheries Act amendments to the
Magnuson-Stevens Fishery Conservation and Management Act of 1996



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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April 2002

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A Message from the Assistant Administrator for Fisheries, NOAA

Welcome to NOAA's report on the status of the marine fisheries of the United States for 2001. In 1996, Congress put America's marine fisheries on a new path, one aimed at emphasizing the need to prevent overfishing and to rebuild depressed fish stocks. Over the past five years, NOAA and the eight Regional Fishery Management Councils have worked hard, and at times struggled, to turn the conception of the Sustainable Fisheries Act (SFA) into a reality. Slowly but ever surely, we are making progress toward achieving Congress' far-reaching vision.

I believe that we in NOAA and the Regional Fishery Management Councils, along with our colleagues and partners in the states and fisheries constituencies, can point with pride to the many successes that our joint efforts have yielded. The framework for the new standard for fisheries management under the SFA has been established; we have improved our knowledge of the stocks, partly through cooperative research efforts with industry; and we have instituted new management programs in nearly all of our fisheries that will achieve the higher standard of the SFA.

Our efforts have begun to bear fruit. The size of many fish stocks around the country has begun to increase, while we have halted the decline of other stocks and have begun rebuilding them. This includes many of our most important species. The number of stocks with sustainable harvest rates rose by 45% between 1999 and 2001, and those with sustainable stock sizes increased by a third. The Atlantic sea scallop resource has been rebuilt, as have some of the mackerel stocks in the Southeast. Other stocks, such as New England groundfish, Atlantic summer flounder, red snapper in the Gulf of Mexico and Alaska tanner and snow crab have seen significant improvements in recent years, although in some cases significant additional growth is needed before the stocks can be considered healthy.

And yet the challenges that still await us are enormous. I believe that it is essential that our fishery management planning and regulatory activities must become more transparent and more timely. We in NOAA will need to work smarter and become more efficient in providing the policy oversight and regulatory implementation that reflect our responsibilities under the law. And we will need to work even more closely with the Regional Fishery

Management Councils to find better ways of meeting the requirements of the various laws that govern our processes.

Meeting our challenges will take more than improving our ability to serve our customers. In too many fisheries we must do more to address the SFA's goal of reducing bycatch, including revising many of our regulatory provisions that may actually be contributing to the problem. We have to work harder to meet the requirements of rebuilding plans for overfished resources. We have to do more to improve how we designate and conserve essential fish habitat. And we will have to work to attain even better, more complete scientific information that serves as the basis for all our management activities.

We have initiated a 5-year review of the implementation of the Sustainable Fisheries Act. We will be looking at how well we and the Councils do our jobs, and what improvements we can make. We will be taking a comprehensive look at how well our fishery management plans conform to the policies of the Act and our guidelines. Future reports on the status of stocks will benefit from this analysis. Our goal is to fully meet the many challenges of the law for the conservation and management of this Nation's marine fisheries.

In this report, which is based on current fishery management plans and stock assessments, you will find both evidence of our success, and the challenges that still await. I know that the pace of our progress thus far has often been frustrating for all of us—in NOAA, the Councils, the states, the fishing industry, and the public. Successful completion will require even more patience and determination from all of us. NOAA is committed to fulfilling the goals of the Sustainable Fisheries Act, and to the ongoing conservation of fully sustainable U.S. fisheries. We will be successful only with the assistance of our colleagues and partners.



William T. Hogarth, Ph.D.

Executive Summary

The passage of the Sustainable Fisheries Act in 1996 (SFA), reauthorizing the Magnuson-Stevens Fishery Conservation Management Act (MSA) of 1976, marked a significant change in the Agency's legislative authority to manage living marine resources. The SFA provided the National Marine Fisheries Service (NOAA Fisheries) with strengthened management tools to better address human impacts in the marine environment. These new tools included more stringent requirements to rebuild overfished fisheries and manage against overfishing, and a greater recognition of essential fish habitat. Since 1987 NOAA Fisheries has required the eight Fishery Management Councils to establish definitions for overfishing. However, under the SFA, Congress raised the overfishing standard by providing the mandate for the Councils to specify objective and measurable criteria and management measures to end overfishing and rebuild overfished stocks to levels consistent with producing the maximum sustainable yield from each fishery. This report is in response to Congressional interest for an annual report on the progress of addressing overfishing and rebuilding overfished fisheries in the United States. This is the fifth annual report and contains reporting data for the year 2001.

This report describes in a series of tables the status of marine fish stocks under federal management in the U.S. Exclusive Economic Zone (EEZ), an area of vast diversity and richness of living marine resources. The EEZ extends to 200 miles offshore and covers more than 2 million square miles, equivalent to approximately two-thirds of the U.S. continental landmass. Although the SFA passed into law less than six years ago, significant progress has been made and continues to be made in both the level of scientific knowledge and, more importantly, our ability to manage fisheries based on that knowledge. Most of these fishery management successes share common characteristics—they represent species that mature quickly, have high reproductive rates and occur primarily in relatively healthy marine habitats. On the other hand we would not expect certain species to rebuild in the short term, such as those that migrate through international waters or have different life histories that require long time frames to rebuild. Some will take as long as 30 years or more. As such, the information contained in this report should be considered under the international and biological constraints that influence the progress and timelines of our management regimes and their success.

A review of the determinations contained in this report finds that significant progress has been made in recent years. Two stocks were declared to be fully rebuilt in 2001. In addition, the number of stocks with sustainable harvest rates and stock sizes have risen sharply since 1999. The stocks with sustainable harvest rates rose by 45 percent between 1999 and 2001, while those with sustainable stocks sizes increased by a third. The number of stocks with harvest rates above the approved threshold level, i.e., stocks with overfishing occurring, have been reduced by 15 percent, and those whose stock size is below minimum acceptable levels, i.e., overfished stocks, have declined by 12 percent in the last year. Rebuilding programs are in place or under development for virtually all overfished stocks, and have largely resulted in the gains just noted.

In reviewing the information presented it is important to understand that this report has undergone an evolution since first being published in 1997. The Status of Stocks Reports in 1997 and 1998 relied on pre-SFA definitions for overfishing. Since implementing the SFA's more stringent criteria in 1999, nearly all Fishery Management Plans (FMPs) have been amended, and the Secretary has approved most of the revised definitions for "overfishing," and "overfished" criteria, as well as "rebuilding" programs for overfished stocks. The change in overfishing definitions caused some additional stocks to be identified as overfished. Thus, the reader will note a shift in the reported numbers between the years 1999 and 2000.

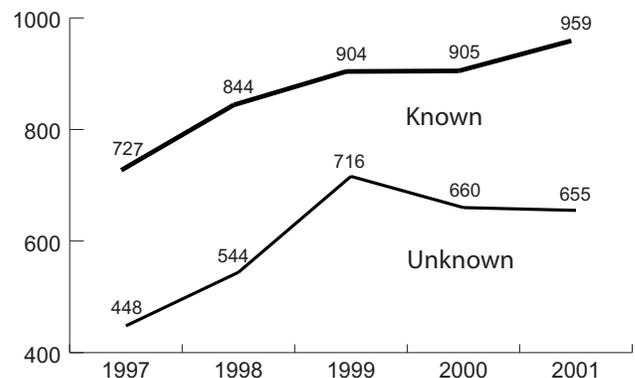


Figure 1. Known and unknown stock status, 1997-2001.

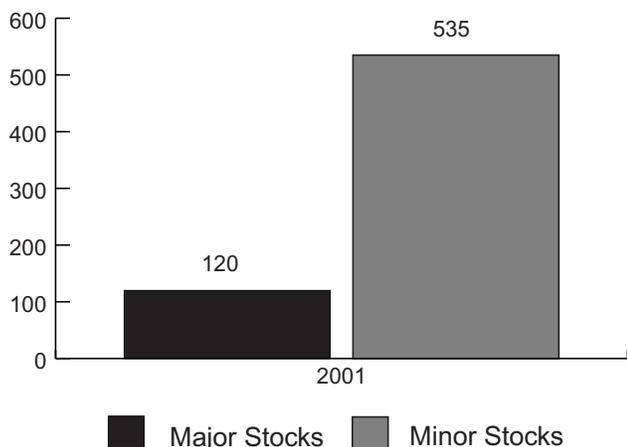


Figure 2. Number of major and minor stocks of unknown status in 2001.

The years 2000 and 2001, however, are based on the same criteria. Fisheries management regimes and the collection of data is a dynamic process. As such, direct comparability from year to year is sometimes difficult. Nonetheless, as SFA criteria nears full implementation, NOAA Fisheries anticipates that standardization of the data year-to-year will become easier.

The number of stocks in this report has gradually risen since 1997 to a high of 959 stocks listed in 2001 (Figure 1). The number of stocks whose status is known has also risen over the years and now stands at 304, compared to 279 stocks in 1997. A large number, however, have a relatively small maximum stock size and little is known about them. We are collecting more information on some of these stocks, and the number of stocks whose status is unknown has begun to decline, falling from 716 in 1999 to 655 in 2001.

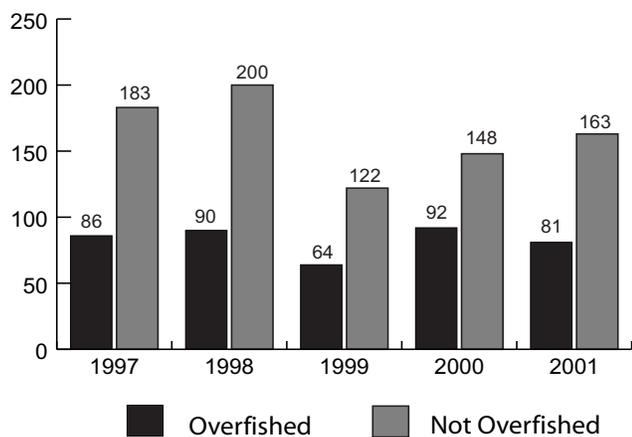


Figure 3. Number of stocks by 'overfished' criteria, 1997-2001.

The reader should also note the difference between “major” and “minor” stocks and its relevance to “known” or “unknown” status (Figure 2). Of the 304 stocks whose status is known, 175 are major stocks with over 200,000 pounds in landings. Of the remaining 655 whose status is unknown, only 120, or 18 percent, are major. While minor stocks may be important in an ecosystem context, they are not the primary target species of directed fisheries. Therefore, due to funding constraints and other management concerns, these stocks cannot be given the same level of priority that targeted fisheries must be given to stop or prevent overfishing and to rebuild overfished stocks.

The report examines stocks according to their individual status and attempts to answer several questions in an effort to meet the requirements of the MSA.

1. Is a stock found to have overfishing occurring (the harvest rate was above a prescribed threshold as established within a FMP)?
2. Is a stock determined to be overfished (the stock size was below a prescribed biological threshold)?
3. How do this year’s determinations compare to previous year’s report to gauge changes in the status of the stocks?
4. How many rebuilding programs have been approved, and what is the status of those not yet approved?

Significant improvements have been realized for stocks whose status was determined to be overfished (Figure 3). As noted earlier, it is difficult to compare the first two years after passage of the SFA in 1996 with subsequent years since revised management programs to rebuild overfished stocks were not required until the end of 1998. Therefore, it is most appropriate to evaluate changes from 1999. The number of stocks that were found to be healthy has steadily risen from 122 in 1999 to 163 in 2001, a gain of 34 percent. As for stocks that are overfished, the number declined in the past year to 81, compared to 92 in 2000.

While there has been significant progress overall regarding overfished stocks, there have been notable gains in the stock size for specific stocks or stock complexes, including those that remain overfished. For example, the Georges Bank yellowtail flounder stock has risen from about 5 thousand metric tons in 1994 to 56 thousand metric tons in 2000. Georges Bank haddock has experienced a similar increase rising from 11 thousand metric

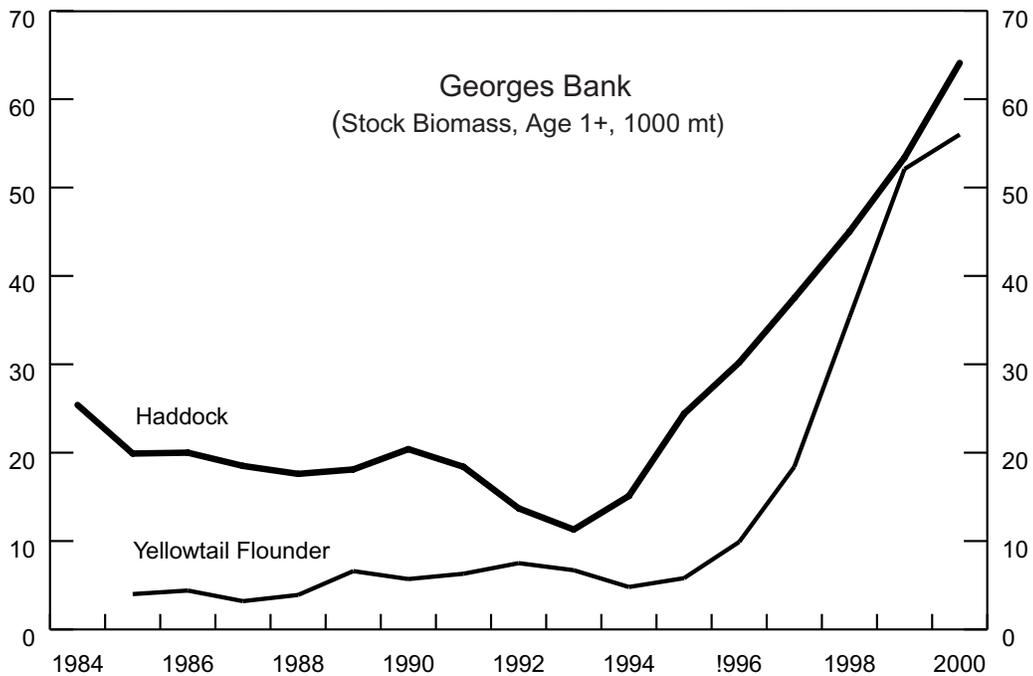


Figure 4. Improvement in spawning stock biomass for Georges Bank haddock and yellowtail flounder, 1984-2000.

tons in 1993 to over 64 thousand metric tons in 2000 (Figure 4). Similar gains have been seen in the summer flounder stock. The total stock size of summer flounder almost doubled between 1992 and 1999, increasing to about 80 million pounds. This stock has continued to grow since 1999, and was declared to be no longer overfished in 2001. Likewise, the abundance of the Bering Sea tanner crab stocks has nearly tripled since 1998. Even though some stocks remain overfished, similar improvements in the size of the stock have occurred across the country, such as Atlantic and Gulf of Mexico king mackerel, Atlantic and Gulf of Mexico spanish mackerel, Gulf of Mexico red snapper and Bering Sea/Aleutian Islands snow crab.

The situation concerning the status of stocks is constantly changing. For example, since the material for this report was compiled, new assessments for many New England groundfish stocks and Pacific whiting have been completed and reviewed. These assessments may change the overfished status of some of these stocks. These changes will be reviewed in the next status of stocks report. NOAA Fisheries will be directly notifying the relevant Council of the change in status for any of their stocks.

The report also finds that stocks not experiencing overfishing have steadily risen in recent years (Figure 5).

Whereas, 159 stocks in 1999 had no overfishing, by 2001 the number had risen to 230, almost a 45 percent gain. At the same time, the number of stocks with overfishing occurring has declined. In 1999, 77 stocks had overfishing, but by 2001 the number had declined to 65, a 15 percent decrease.

NOAA Fisheries has approved rebuilding programs for the vast majority of overfished stocks. In 2001, an addi-

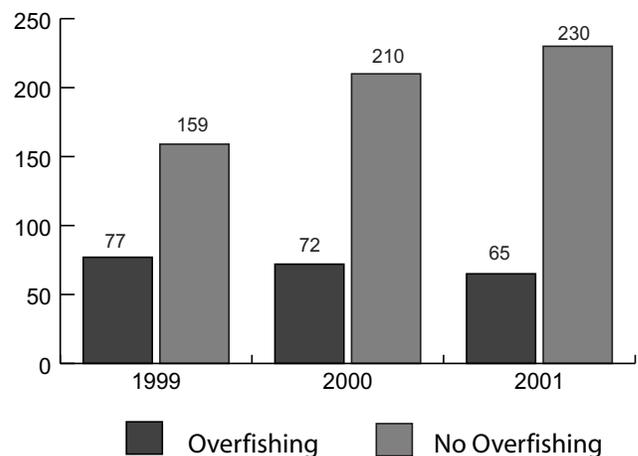


Figure 5. Number of stocks by 'overfishing' criteria, 1999-2001.

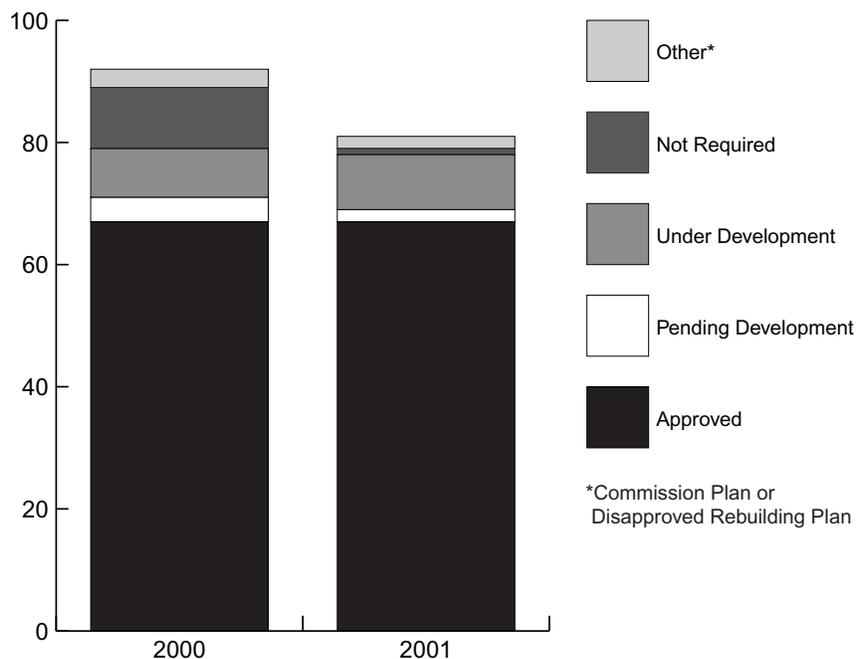


Figure 6. Status of rebuilding plans for overfished stocks, 2000-2001.

tional rebuilding program was approved, and the total number of approved programs stands at 74, including 67 rebuilding programs for currently overfished stocks, and an additional 7 rebuilding programs for stocks whose stock size is now above overfished thresholds but must continue to be rebuilt to levels consistent with producing maximum sustainable yield. In some cases, particularly for highly migratory species, rebuilding programs have been approved but not yet implemented pending approval

of an international rebuilding regime or additional court-ordered stock surveys. Of the 81 total stocks that are overfished, most either have a rebuilding program approved or are under development. As noted in (Figure 6), 67 rebuilding programs are in place for currently overfished stocks, and an additional 9 programs are under development. In addition, many Councils have been refining a number of previously approved rebuilding programs to better achieve the intent of the SFA.

Annual Report to Congress on the Status of U.S. Fisheries—2001

INTRODUCTION

This report to Congress responds to section 304(e)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act (SFA) on October 11, 1996:

(1) The Secretary shall report annually to the Congress and the councils on the status of fisheries within each council's geographic area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. For those fisheries managed under a fishery management plan or international agreement, the status shall be determined using the criteria for overfishing specified in such plan or agreement. A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.

This is the fifth annual report on the status of stocks and overfishing that NOAA Fisheries has provided to Congress and the councils. It serves to describe the status of stocks and it also contains information on the status of rebuilding plans.

The format and content of this year's report is similar to last year's report, including a basis for each stock's classification, denoting which stocks are major and which ones are minor, and appendices that contain detailed sections on methodology for classification of stocks.

The report is arranged around seven tables. The first two provide summary information, the third table is a list of principle species, and the last four tables provide more detailed information on each listed stock and FMP.

Table 1. Summary of stocks by Council area, 2000 and 2001.

Table 2. Description of major and minor stocks by Council, 2001.

Table 3. Summary of stock status for principal species contained in Federal fishery management plans.

Table 4. Summary of stock status for species contained in the management unit of Federal fishery management plans.

Table 5. Summary of stock status for species contained in Federal fishery management plans, but not contained in a management unit.

Table 6. Summary of stock status for species not contained in Federal fishery management plans.

Table 7. Species contained in Federal fishery management plans under development.

The tables are followed by five appendices that provide greater detail on methodology and overfishing definitions, as well as a guide to acronyms used in the tables.

Appendix 1. Report format and description of methodology for determining stock status.

Appendix 2. Overfishing definitions contained in fishery management plans.

Appendix 3. Overfishing definitions for species not contained in Federal fishery management plans.

Appendix 4. Overfishing definitions from fishery management plans under development.

Appendix 5. Six tiers comprising the overfishing definition for Gulf of Alaska and Bering Sea / Aleutian Islands groundfish.

Appendix 6. Acronyms used in appendices.

Historical Review

The Report on the Status of Fisheries in the United States has evolved over the past five years as changes in the

management process have been implemented in accordance with the SFA. Although the SFA was passed on October, 11 1996, revised management programs, including new overfishing definitions and criteria, were not required until two years later. However, the report on the status of stocks was not afforded such a delay. NOAA Fisheries, therefore, developed reports for 1997 and 1998 using existing overfishing definitions in the FMP that were based either on the rate of fishing or the size of the stock, but seldom both. A stock was determined to be overfished if the criteria in the FMP was exceeded, regardless of whether they pertained to the rate of fishing or the size of the stock. FMP amendments to incorporate the requirements of the SFA were submitted in the latter part of 1998 and early 1999. However, these provisions were generally not implemented until mid-1999, and were not reflected in the status of the stocks report for that year. In an effort to be consistent with the requirements of the SFA, the 1999 report included separate determinations for the rate of fishing (mortality) and size of the biomass for each stock. If either component was found to violate the criteria, the entire stock was declared to be overfished. Beginning in 2000, most of the overfishing definitions had been revised to conform to the SFA and included both fishing mortality and biomass components. The 2000 and 2001 reports, therefore, included determinations for each component, i.e., the determination that a stock was overfished was based solely on whether the size of the biomass was above the threshold, and the determination of overfishing was solely based on whether the rate of fishing (mortality) was below the threshold. It is expected that this basis of determination will continue in future reports.

Listing of Stocks

A substantial portion of a domestic stock must occur within the U.S. Exclusive Economic Zone (EEZ) for it to be identified in this report. Most stocks are managed under a Council or joint Council FMP. There are 42 approved and implemented federal FMPs, six federal FMPs under development, and numerous other EEZ fisheries under no federal FMP. Some FMPs contain only one or a few stocks in the management unit, while others contain more than 100 stocks. To the extent possible, individual stocks for each fishery or FMP were assessed separately.

This year's report includes 72 new stocks. Fifty-nine additional natural and hatchery stocks contained in the WA, OR, and CA Salmon FMP are now listed in the report. Eleven stocks have been added to the Gulf of Alaska Groundfish FMP, and two stocks were added to the Bering Sea / Aleutian Islands Groundfish FMP.

Eighteen stocks have been deleted from the report. Chinook salmon (Dungeness River) is no longer contained in the WA, OR, CA Salmon FMP, and the categories "other chinook salmon stocks" and "other coho salmon stocks" are no longer used in the report because they consist of significant numbers of stocks from small tributaries that cannot be tracked in the ocean fisheries. Therefore, determinations cannot be made for these stocks. Northern rockfish, sharpchin rockfish, shortraker rockfish, roughey rockfish, rougtail skate, sandpaper skate, starry Skate, blue shark, sixgill shark, and soupfin shark are no longer contained in the Bering Sea / Aleutian Islands Groundfish FMP, and flathead skate, rougtail skate, sandpaper skate, and starry skate are no longer contained in the Gulf of Alaska Groundfish FMP. South Atlantic rock shrimp was inadvertently listed in Table 3 and Table 6, and has now been deleted from Table 6.

Major and Minor Stocks

This year's report distinguishes major from minor stocks. Landings for each stock include published and unpublished commercial and recreational catches from various sources. The use of landings allows both commercial and recreational sectors to be readily incorporated into this evaluation. Landings are used as a proxy to reflect the relative size of the stock and/or the value assigned by the marketplace (limited landings may indicate a lack of a market for the stock). Based on landings for all stocks, 200,000 pounds appeared to be a suitable, albeit approximate, dividing line for separating major and minor stocks.

Landings data that were used in last year's report (1999 landings) are the same used in this report and do not reflect the most current information available on pounds of fish landed. While landings will likely change somewhat from year-to-year, major and minor designations will likely remain the same, therefore, it is not necessary to update landings figures every year. These totals are used merely to divide stocks into their respective categories. Major stocks are now listed in boldface type and capital lettering.

Major and minor stock designations using a 200,000 pounds criteria is not applicable for Pacific coast salmon under the Pacific Fishery Management Council Salmon FMP. The Salmon FMP uses exploitation rates to classify those natural stock components that are subject to harvest impacts in ocean fisheries under Council jurisdiction. Major west coast salmon stocks are classified as those with a cumulative adult equivalent exploitation rate more than 5 percent in ocean fisheries under Council jurisdiction during base periods utilized by the fishery regu-

lation assessment models (1979-1982 for chinook and 1979-1981 for coho).

Format Changes

The only changes to the format of this year's report was the addition of the column labeled "N/A." This was added for salmon stocks contained in the WA, OR, CA Salmon FMP that qualify as exceptions to the application of the overfishing criteria identified in Amendment 14. Amendment 14 was approved by NOAA Fisheries on September 27, 2000, which provided three exceptions to the application of overfishing criteria and subsequent Council actions for stocks or stock complexes with conservation objectives: (1) hatchery stocks, (2) stocks for which Council management actions have inconsequential impacts, and (3) stocks listed under the Endangered Species Act (ESA).

Salmon stocks important to ocean fisheries and comprised exclusively of hatchery production generally have conservation objectives expressed as a measure of the eggs harvested from returning spawners, or the actual number of spawners returning to the hatchery to meet program objectives. The Salmon FMP recognizes these objectives and strives to meet them. However, these artificially produced stocks generally do not need the protection of overfishing criteria and special Council rebuilding programs to maintain long-term production. Because hatchery stocks can generally sustain significantly higher harvest exploitation rates than natural stocks, ocean fisheries rarely present a threat to their long-term survival. Therefore, hatchery stocks that meet this criteria are the first exception to the application of overfishing criteria.

Several natural stock components identified within the Salmon FMP are subject to minimal harvest impacts in Council fisheries because of migration timing and/or distribution and therefore are exceptions to the application of overfishing criteria. As a result, the Council's ability to affect the overall trend in the abundance of these components through harvest restrictions is limited. Components in this second exception are identified by a cumulative adult equivalent exploitation rate of less than 5 percent in ocean fisheries under Council jurisdiction during base periods utilized by the fishery regulation assessment models (1979-1982 for chinook and 1979-1981 for coho).

The FMP regards stocks listed as endangered or threatened under the Endangered Species Act (ESA) as a third exception to the application of overfishing criteria of the Magnuson-Stevens Act. The ESA requires federal agen-

cies whose actions may jeopardize listed salmon to consult with NOAA Fisheries. Because NOAA Fisheries implements ocean harvest regulations, it is both the action and consulting agency for actions taken under the Salmon FMP. To ensure there is no jeopardy, NOAA Fisheries conducts internal consultations with respect to the effects of ocean harvest on listed salmon. The Council implements NOAA Fisheries' guidance as necessary to avoid jeopardy, as well as in recovery plans approved by NOAA Fisheries. As a result of NOAA Fisheries' consultation, an incidental take statement may be issued which authorizes take of listed stocks under the FMP that would otherwise be prohibited under the ESA. It is believed that the requirements of the ESA are sufficient to meet the intent of the Magnuson-Stevens Act overfishing provisions. Those provisions are structured to maintain or rebuild stocks to levels at or above maximum sustainable yield and require the Council to identify and develop rebuilding overfished stocks.

RESULTS

Overfishing

The number of stocks for which harvest rates exceed the overfishing threshold declined from 72 in 2000 to 65 in 2001. The number of stocks found to have no overfishing increased from 210 in 2000 to 230 in 2001. The number of stocks for which harvest rates were unknown or for which overfishing thresholds were not defined declined from 623 in 2000 to 607 in 2001. This pattern occurred for stocks managed by the New England, South Atlantic, Pacific, and North Pacific Councils.

Overfished

The number of stocks determined to be overfished decreased from 92 in 2000 to 81 in 2001. Many of these changes were a result of Amendment 14 to the WA, OR, CA Salmon FMP, rather than a significant change in the size of the biomass of those stocks. Eight salmon stocks that were previously listed as overfished are now listed as "N/A" because they meet the criteria of exceptions two or three under Amendment 14 to the Pacific Coast Salmon Plan. A ninth stock was previously listed as overfished (chinook salmon / Dungeness River) and is no longer contained in the FMP. Six additional stocks were added to the overfished list and eight stocks were removed from the list.

The number of stocks found to be not overfished increased in 2001. Stocks found to be not overfished increased

from 148 in 2000 to 163 in 2001. This increase occurred for stocks managed by the Mid-Atlantic, South Atlantic, and Pacific Councils.

Overall, the number of stocks for which the biomass was either unknown or undefined, declined by 5 stocks to 655. In addition, there was a significant shift from stocks that were listed as unknown in 2000 to a listing of undefined in the Caribbean, Pacific, and Western Pacific Council areas this year. Some of the stocks contained in FMPs managed by these Councils have never had overfishing or overfished definitions. Such stocks are usually minor and are contained in FMPs in which existing overfishing definitions do not apply to these stocks. Since these stocks are contained in an FMP and specific overfishing definitions are required, but are not available, the status of such stocks should be listed as undefined. While their status may be unknown, it would be more accurate to list them as undefined until overfishing criteria are approved for them.

Approaching an Overfished Condition

Three stocks were found to be “approaching an overfished condition,” two fewer than 2000. The basis for determining if a stock is approaching an overfished condition is the status and trend of the stock. Unless the status of the stock is known, a determination that the stock will become overfished within two years cannot be made with any certainty. Therefore, the definition for the biomass component in the FMP should be the determining criterion in evaluating whether a stock is approaching an overfished condition. In some cases, the pre-SFA definition has remained in the FMP and was used as the basis for the determinations. Also, for Western Pacific salmon stocks, the determining criteria is based on maximum sustainable yield/maximum spawner potential objectives for natural stock or stock complexes. More information regarding determinations for Western Pacific salmon can be found in Appendix one. It should also be noted that the number of stocks in the “Approaching Overfished Condition” column should always be added to the “Overfished” columns to arrive at the final count of total stocks, because all determinations are based on the stock size or equivalent.

Major and Minor Stocks

Stocks are separated into major and minor categories. The division was based on whether a stock had annual landings of more than 200,000 pounds. In 2001, 295 stocks that were classified as major accounted for the vast majority of landings, totaling more than 8 billion pounds,

compared to only 9 million pounds for the 664 minor stocks.

Of the 959 stocks in the report, the status of more than 600 were either unknown or undefined, and 82 percent of those stocks were categorized as minor. The data also reveal that of the total of major 295 stocks, 40 were determined to have overfishing occurring, 159 had acceptable harvest rates, 44 were found to be overfished, and 118 were not overfished. For minor stocks, 25 were experiencing overfishing, 71 stocks had acceptable harvest rates, 37 were overfished, and 45 were not overfished. The three stocks that were approaching an overfished condition were major stocks.

Rebuilding Programs

This report identifies 74 rebuilding programs that are either currently implemented or approved. Seven of these rebuilding plans are in effect for stocks that are currently listed as not overfished, but have not been rebuilt to a level that is consistent with producing the maximum sustainable yield. The remaining 67 rebuilding plans in effect are for stocks that are currently listed as overfished. This year’s report includes 29 rebuilding programs that are Pre-SFA. Forty-five of all programs are consistent with SFA guidelines, however, 27 of those have not been implemented, pending international agreement on management programs. The programs not implemented involve highly migratory species. In some cases the rebuilding programs are pending the adoption of international agreements. For other stocks, the rebuilding program was delayed pending a court-ordered peer review of the stocks assessment upon which the program was based. Based on the review, a new stock assessment will be conducted in early 2002, and a revised rebuilding program will be subsequently developed.

There are three stocks (Gulf of Mexico greater amberjack, WA, OR, CA darkblotched rockfish, and WA, OR, CA widow rockfish) that have been identified as overfished since last year’s report, and the Councils have one year from the date they were notified of their status to submit rebuilding plans. Redfish and white hake have also been identified as overfished since last year’s report, and the Council will be notified upon publication of this report. Rebuilding programs have not been submitted for five stocks, but they are currently indirectly growing under the rebuilding program for other groundfish stocks; two of these stocks are listed as overfished (Mid-Atlantic yellowtail flounder and ocean pout), and three are listed as not overfished, but have not rebuilt to levels consistent with MSY (Gulf of Maine haddock, Cape

Cod yellowtail flounder and Georges Bank winter flounder). One program has been disapproved (scup), and there is one stock for which a formal rebuilding program was not required to be submitted because no fishing is allowed in this fishery (Atlantic salmon). Finally, there is one overfished stock contained in a FMP managed by the Atlantic States Marine Fisheries Commission (Atlantic sturgeon).

Three of the rebuilding programs listed in last year's report have been temporarily set aside pending a recent court ruling (lingcod, Pacific ocean perch, and bocaccio). Two rebuilding plans are no longer in effect because rebuilding has been achieved under the plan (Georges Bank Atlantic sea scallop and Middle Atlantic sea scallop), and another stock was incorrectly identified as overfished and rebuilding under a plan (Southern Georges Bank / Middle Atlantic red hake). Five post-SFA rebuilding plans have been approved since last year's report (golden tilefish, canary rockfish, cowcod, Saint Matthews Island blue king crab, and Bering Sea snow crab).

Any stock that has previously been listed, or is currently listed, as overfished is required to have a rebuilding program until the stock has been rebuilt to levels that are consistent with supporting MSY on a sustainable basis. Overfished stocks that do not have a rebuilding program are listed as "rebuild program" in the management action required column, which indicates that a rebuilding program is required for this stock. Overfished stocks that are listed as "continue rebuilding" in the management action required column are currently rebuilding under an approved rebuilding program.

Stocks that are listed as not overfished—rebuilding were previously below the minimum stock size threshold, are now above that level, but have not been rebuilt to the target levels specified in their rebuilding plans. These stocks are currently rebuilding under an approved rebuilding plan, and are listed as "continue rebuilding" in the management action required column. Three exceptions are Cape Cod yellowtail flounder, Gulf of Maine haddock, and Georges Bank winter flounder, which are rebuilding under rebuilding programs for other groundfish stocks.

The status of these stocks is likely to improve as a result of these measures, but because they were previously listed as overfished, a formal rebuilding program is still required for them. It is important to note that the status of previously overfished stocks should not be considered as fully healthy until they have been rebuilt to levels consistent with producing the maximum sustainable yield.

Specific Stock Determinations

Changes from 2000

Eight stocks listed as overfished in 2000 (Gulf of Maine haddock, Georges Bank haddock, Southern Georges Bank / Middle Atlantic red hake, Northern monkfish, summer flounder, Atlantic croaker, winter skate, and smooth skate) were removed from the overfished list. Gulf of Maine haddock, Georges Bank haddock, Northern monkfish, and summer flounder are now classified as not overfished because the biomass level exceeds the minimum stock size threshold, but they have not been rebuilt to levels consistent with producing MSY as required by the Magnuson-Stevens Act. Therefore, the Councils must continue their rebuilding programs until the stocks are rebuilt. The most recent survey index for winter skate and smooth skate determined that the current biomass is above the minimum stock size threshold, and therefore, they are now listed as not overfished.

For Southern Georges Bank / Middle Atlantic red hake, last year's determination of overfished was incorrect; there is no definition contained in the FMP to make a determination relative to the stock level. Atlantic croaker was previously listed as overfishing occurring and overfished based on status determinations contained in the publication *Our Living Oceans (OLO)*. These status determinations were likely based on regional stock assessments that were conducted prior to 1995, not a coast wide assessment of the stock. Since no coastwide assessment has been conducted and determinations contained in *OLO* are outdated, it would be more accurate to list the status as unknown, until more information becomes available.

Seven stocks have been removed from the overfishing list because recent analyses have determined that the fishing mortality rates are now below the established thresholds. The stocks include Cape Cod yellowtail flounder, bluefish (except Gulf of Mexico), *loligo* squid, WA, OR, CA darkblotched rockfish, WA, OR, CA yelloweye rockfish, WA, OR, CA silvergrey rockfish, and winter skate. An eighth stock, Atlantic croaker, was previously listed as overfishing occurring, but is now listed as unknown.

Five stocks contained in the Alaska Crab FMP (St. Lawrence Island blue king crab, Aleutian Islands red king crab, Bering Sea Triangle tanner crab, Adak tanner crab, and Western Aleutian Islands grooved tanner crab) were changed from unknown to no under overfishing. For these stocks, there is no fishing mortality because the fishery in the EEZ is closed.

2001 Determinations

The 2001 report identifies four additional stocks for which overfishing is occurring: Gulf of Maine haddock, Northern shrimp, Gulf of Mexico red drum, and thorny skate.

Six additional stocks are identified as being overfished:

1. New England / Middle Atlantic redfish and white hake
2. South Atlantic black sea bass
3. Gulf of Mexico greater amberjack
4. Pacific darkblotched rockfish and widow rockfish

Two additional stocks are identified as approaching an overfished condition: Southern New England / Middle Atlantic windowpane flounder and WA, OR, CA yelloweye rockfish. Five stocks were listed as approaching an overfished condition in 2000, and Gulf of Mexico gag remains on the list.

Loligo squid has been removed from the list because it is no longer approaching an overfished condition, North-

ern shrimp is now listed as unknown, and darkblotched rockfish and widow rockfish are now listed as overfished. The status determination for Northern shrimp was previously based on the results of Northeast Fishery Science Center and Atlantic States Marine Fisheries Commission trawl surveys. Because the Northern shrimp FMP does not contain reference points to measure the status of the biomass relative to the level at which the stock becomes overfished, determinations regarding the approaching or overfished status cannot be made, and previous listings were in error.

The Councils and the Secretary are required to submit measures to end overfishing and rebuild stocks that are overfished, and to prevent overfishing for those stocks that are approaching an overfished condition, managed under these FMPs and FMPs under development, within a year of being notified. For those stocks that have been removed from the overfished list, but are not at levels consistent with producing MSY, rebuilding plans must continue until rebuilding targets are met.

Table 1. SUMMARY OF STOCKS BY COUNCIL AREA, 2000 AND 2001

Jurisdiction	Year	Number of Stocks	Overfishing?					Overfished?					Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	N/A	Yes	No	Not Known	Not Defined	N/A	
NEFMC	2000	37	10	17	10	0	0	13	19	4	1	0	0
	2001	37	7	23	7	0	0	10	21	3	2	0	1
MAFMC	2000	11	6	5	0	0	0	5	3	1	1	0	1
	2001	11	4	7	0	0	0	4	5	1	1	0	0
NEFMC/MAFMC	2000	3	3	0	0	0	0	3	0	0	0	0	0
	2001	3	3	0	0	0	0	2	1	0	0	0	0
SAFMC	2000	89	13	21	55	0	0	14	2	67	6	0	0
	2001	88	13	21	52	2	0	15	4	61	8	0	0
GMFMC	2000	57	4	14	39	0	0	5	5	40	6	0	1
	2001	57	5	13	37	2	0	6	4	38	8	0	1
SAFMC/GMFMC	2000	10	0	6	4	0	0	1	5	4	0	0	0
	2001	10	0	6	3	1	0	1	5	3	1	0	0
CFMC	2000	179	1	9	169	0	0	3	1	153	22	0	0
	2001	179	1	9	154	15	0	3	1	138	37	0	0
SAFMC/GMFMC/CFMC	2000	1	0	0	1	0	0	0	0	1	0	0	0
	2001	1	0	0	1	0	0	0	0	1	0	0	0
PFMC	2000	112	3	35	70	4	0	14	22	72	2	0	2
	2001	168	0	41	68	2	57	7	30	69	4	57	1
WPFMC	2000	64	0	15	3	46	0	1	48	15	0	0	0
	2001	64	0	15	2	47	0	1	48	14	1	0	0
NPFMC	2000	244	0	73	166	5	0	2	31	211	0	0	0
	2001	243	0	82	161	0	0	2	32	209	0	0	0
PFMC/NPFMC	2000	1	0	1	0	0	0	0	0	0	1	0	0
	2001	1	0	1	0	0	0	0	0	0	1	0	0

Table 1. SUMMARY OF STOCKS BY COUNCIL AREA, 2000 AND 2001, CONTD.

Jurisdiction	Year	Number of Stocks	Overfishing?					Overfished?					Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	N/A	Yes	No	Not Known	Not Defined	N/A	
HMS	2000	83	29	8	46	0	0	29	8	46	0	0	0
	2001	83	29	8	46	0	0	29	8	46	0	0	0
ASMFC	2000	12	3	5	4	0	0	2	3	4	2	0	1
	2001	12	3	3	5	1	0	1	3	5	3	0	0
GSMFC	2000	2	0	1	1	0	0	0	1	1	0	0	0
	2001	2	0	1	1	0	0	0	1	1	0	0	0
Total	2000	905	72	210	568	55	0	92	148	619	41	0	5
	2001	959	65	230	537	70	57	81	163	589	66	57	3

* Determination based on fishing mortality rate

** Determination based on stock level

1. This total does not include the species designated as Approaching an Overfished Condition to avoid double counting

TABLE 2. DESCRIPTION OF MAJOR AND MINOR STOCKS BY COUNCIL, 2001

Jurisdiction	Stock Group	Number of Stocks	1999 Landings (1,000 Pounds)	Overfishing?					Overfished?					Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	N/A	Yes	No	Not Known	Not Defined	N/A	
NEFMC	Major	32	346,453	7	21	4	0	0	7	21	1	2	0	1
	Minor	5	145	0	2	3	0	0	3	0	2	0	0	0
	Total	37	346,598	7	23	7	0	0	10	21	3	2	0	1
MAFMC	Major	11	241,536	4	7	0	0	0	4	5	1	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	11	241,536	4	7	0	0	0	4	5	1	1	0	0
NEFMC / MAFMC	Major	3	56,539	3	0	0	0	0	2	1	0	0	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	56,539	3	0	0	0	0	2	1	0	0	0	0
SAFMC	Major	25	50,738	9	10	6	0	0	9	2	13	1	0	0
	Minor	63	1,823	4	11	46	2	0	6	2	48	7	0	0
	Total	88	52,561	13	21	52	2	0	15	4	61	8	0	0
GMFMC	Major	22	275,584	5	6	9	2	0	4	4	10	3	0	1
	Minor	35	1,043	0	7	28	0	0	2	0	28	5	0	0
	Total	57	276,627	5	13	37	2	0	6	4	38	8	0	1
SAFMC / GMFMC	Major	9	44,247	0	6	3	0	0	1	5	3	0	0	0
	Minor	1	0	0	0	0	1	0	0	0	0	1	0	0
	Total	10	44,247	0	6	3	1	0	1	5	3	1	0	0
CFMC	Major	2	411	1	1	0	0	0	1	1	0	0	0	0
	Minor	177	974	0	8	154	15	0	2	0	138	37	0	0
	Total	179	1,385	1	9	154	15	0	3	1	138	37	0	0
SAFMC / GMFMC / CFMC	Major	1	1,183	0	0	1	0	0	0	0	1	0	0	0
SAFMC / GMFMC / CFMC	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
SAFMC / GMFMC / CFMC	Total	1	1,183	0	0	1	0	0	0	0	1	0	0	0.

TABLE 2. DESCRIPTION OF MAJOR AND MINOR STOCKS BY COUNCIL, 2001, CONTD.

Jurisdiction	Stock Group	Number of Stocks	1999 Landings (1,000 Pounds)	Overfishing?					Overfished?					Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	N/A	Yes	No	Not Known	Not Defined	N/A	
PFMC	Major	73	1,019,532	0	39	22	2	10	6	29	23	4	10	1
	Minor	95	2,375	0	2	46	0	47	1	1	46	0	47	0
	Total	168	1,021,907	0	41	68	2	57	7	30	69	4	57	1
WPFMC	Major	11	27,066	0	2	0	9	0	0	11	0	0	0	0
	Minor	53	783	0	13	2	38	0	1	37	14	1	0	0
	Total	64	27,849	0	15	2	47	0	1	48	14	1	0	0
NPFMC	Major	76	4,317,010	0	59	17	0	0	2	31	43	0	0	0
	Minor	167	1,215	0	23	144	0	0	0	1	166	0	0	0
	Total	243	4,318,225	0	82	161	0	0	2	32	209	0	0	0
PFMC / NPFMC	Major	1	81,099	0	1	0	0	0	0	0	0	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	81,099	0	1	0	0	0	0	0	0	1	0	0
HMS	Major	17	36,103	8	4	5	0	0	8	4	5	0	0	0
	Minor	66	840	21	4	41	0	0	21	4	41	0	0	0
	Total	83	36,943	29	8	46	0	0	29	8	46	0	0	0
ASMFC	Major	10	891,868	3	2	4	1	0	0	3	4	3	0	0
	Minor	2	4	0	1	1	0	0	1	0	1	0	0	0
	Total	12	891,872	3	3	5	1	0	1	3	5	3	0	0
GSMFC	Major	2	1,283,521	0	1	1	0	0	0	1	1	0	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2	1,283,521	0	1	1	0	0	0	1	1	0	0	0
TOTAL	Major	295	8,672,890	40	159	72	14	10	44	118	105	15	10	3
	Minor	664	9,202	25	71	465	56	47	37	45	484	51	47	0
	Total	959	8,682,092	65	230	537	70	57	81	163	589	66	57	3

Table 3. Summary of Stock Status for Principal Species Contained in the Management Unit in Federal Fishery Management Plans

Note: Refer to endnotes after Table 4

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Sea Scallop	ATLANTIC SEA SCALLOP	GEORGES BANK	NEFMC		No		No	No	N/A	rebuilt under plan
		MIDDLE ATLANTIC	NEFMC		Yes		No	No	reduce mortality	rebuilt under plan
Northeast Multispecies	COD	GULF OF MAINE	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	year 6 of plan*
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	year 6 of plan*
Northeast Multispecies	HADDOCK	GULF OF MAINE	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	not submitted ³
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	year 6 of plan*
Northeast Multispecies	WITCH FLOUNDER		NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	YELLOW- TAIL FLOUNDER	GEORGES BANK	NEFMC		No		No	No	N/A	N/A
		SOUTHERN NEW ENGLAND	NEFMC		No		Yes	N/A	continue rebuilding	year 6 of plan*
Northeast Multispecies	WHITE HAKE		NEFMC		Yes		Yes ⁵	N/A	reduce mortality rebuild program	under development ⁴

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Northeast Multispecies	POLLOCK		NEFMC		Unknown		Unknown	Unknown	N/A	N/A
Northeast Multispecies	WINTER FLOUNDER	GULF OF MAINE	NEFMC	Unknown		Undefined		Unknown	N/A	N/A
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	not submitted ³
Northeast Multispecies	SILVER HAKE	GULF OF MAINE / NORTHERN GEORGES BANK	NEFMC		Unknown		No - rebuilding	No	continue rebuilding ²	3/10-year plan
		SOUTHERN GEORGES BANK / MIDDLE ATLANTIC	NEFMC		Unknown		Yes	N/A	continue rebuilding	3/10-year plan
Monkfish	MONKFISH (NORTH)		NEFMC / MAFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	3/10-year plan
Monkfish	MONKFISH (SOUTH)		MAFMC / NEFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	3/10-year plan
Spiny Dogfish	SPINY DOGFISH		NEFMC / MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/5-year plan
Summer Flounder, Scup, and Black Sea Bass	SUMMER FLOUNDER		MAFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	7/10-year plan
Summer Flounder, Scup, and Black Sea Bass	SCUP		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	disapproved
Summer Flounder, Scup, and Black Sea Bass	BLACK SEA BASS		MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	6/10-year plan

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress	
			Pre SFA	Post SFA	Pre SFA	Post SFA				
Atlantic Bluefish	BLUEFISH (EXCEPT GULF OF MEXICO)	MAFMC		No		Yes	N/A	continue rebuilding	3/9-year plan	
Atlantic Surfclam and Ocean Quahog	SURFLAM	MAFMC	No		Undefined		Unknown	N/A	N/A	
Atlantic Surfclam and Ocean Quahog	OCEAN QUOHOG	MAFMC		No		No	No	N/A	N/A	
Atlantic Mackerel, Squid, and Butterfish	SQUID	<i>ILLEX</i>	MAFMC		No		Unknown	Unknown	N/A	N/A
		<i>LOLIGO</i>	MAFMC		No		No	No	N/A	N/A
Tilefish	GOLDEN TILEFISH	MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	1/10-year plan	
South Atlantic Golden Crab	GOLDEN CRAB	SAFMC		No		Undefined	Unknown	N/A	N/A	
South Atlantic Shrimp	WHITE SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A	
South Atlantic Shrimp	ROCK SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A	
South Atlantic Shrimp	BROWN SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A	
South Atlantic Shrimp	PINK SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A	
South Atlantic Snapper-Grouper	VERMILION SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	3/10-year plan**	
South Atlantic Snapper-Grouper	Red Porgy	SAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/18-year plan**	

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	GAG	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	RED SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	SNOWY GROUPE	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Warsaw Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	GOLDEN TILEFISH	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	10/15-year plan**
South Atlantic Snapper-Grouper	YELLOWTAIL SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	10/10-year plan**
South Atlantic Snapper-Grouper	RED GROUPE	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Black Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	2/15-year plan**

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	BLACK SEA BASS	SAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/10-year plan**
South Atlantic Snapper-Grouper	Goliath Grouper (Jewfish)	SAFMC		No ⁷	Yes		N/A	continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Nassau Grouper	SAFMC		No ⁷	Yes		N/A	continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	MUTTON SNAPPER	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	GREATER AMBERJACK	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	Wreckfish	SAFMC		No	No		Unknown ⁸	N/A	N/A
South Atlantic Snapper-Grouper	Yellowedge Grouper	SAFMC		No	No		Unknown ⁸	N/A	N/A
Atlantic Coast Red Drum	RED DRUM	SAFMC		Yes ⁷	Yes		N/A	reduce mortality continue rebuilding	year 11 of plan*
South Atlantic Corals ⁹	Fire Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Hydrocorals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Octocorals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Stony Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Black Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Stone Crab	STONE CRAB	GMFMC		No	No		No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Mexico Shrimp	BROWN SHRIMP		GMFMC	No		No	No	N/A	N/A	
Gulf of Mexico Shrimp	PINK SHRIMP		GMFMC	No		No	No	N/A	N/A	
Gulf of Mexico Shrimp	WHITE SHRIMP		GMFMC	No		No	No	N/A	N/A	
Gulf of Mexico Shrimp	ROYAL RED SHRIMP		GMFMC	No		Undefined	Unknown	N/A	N/A	
Gulf of Mexico / South Atlantic Spiny Lobster	SPINY LOBSTER		SAFMC / GMFMC		No	No	No	N/A	N/A	
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	KING MACKEREL	GULF GROUP	SAFMC / GMFMC		No	Yes		N/A	continue rebuilding	year 16 of plan*
		ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	SPANISH MACKEREL	GULF GROUP	SAFMC / GMFMC		No	No		No	N/A	N/A
		ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	DOLPHIN		SAFMC / GMFMC		No	No	No	N/A	N/A	
Reef Fish Resources of the Gulf of Mexico	RED SNAPPER		GMFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	11/29-year plan**
Reef Fish Resources of the Gulf of Mexico	RED GROUPER		GMFMC		Yes		Yes	N/A	reduce mortality rebuild program	under development

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	Nassau Grouper	GMFMC		No ⁷	Yes		N/A	continue rebuilding	year 4 of plan*
Reef Fish Resources of the Gulf of Mexico	Goliath Grouper (Jewfish)	GMFMC		No ⁷	Yes		N/A	continue rebuilding	year 11 of plan*
Reef Fish Resources of the Gulf of Mexico	GREATER AMBERJACK	GMFMC		No	Yes		Unknown ⁸	rebuild program	not submitted ¹¹
Reef Fish Resources of the Gulf of Mexico	GAG	GMFMC		Yes	No		Yes	reduce mortality	N/A
Gulf of Mexico Red Drum	RED DRUM	GMFMC		Yes ⁷	Yes		N/A	continue rebuilding	year 11 of plan*
Caribbean Spiny Lobster ¹²	SPINY LOBSTER	CFMC	No		No		No	N/A	N/A
Caribbean Reef Fish ¹³	Nassau Grouper	CFMC	No ⁷		Yes		N/A	continue rebuilding	year 11 of plan*
Caribbean Reef Fish ¹³	Goliath Grouper (Jewfish)	CFMC	No ⁷		Yes		N/A	continue rebuilding	year 8 of plan*
Caribbean Reef Fish ¹³	Mutton Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowtail Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Red Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	QUEEN CONCH	CFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	year 5 of plan*
Western Pacific Crustaceans	SPINY LOBSTER (2 species)	WPFMC	No		No		Unknown ⁸	N/A	N/A
Western Pacific Corals ²⁴	Gold Corals (4 species)	WPFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bottomfish and Seamount Groundfish of the Western Pacific	Seabass (Main Hawaiian Islands)	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	PINK SNAPPER	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	YELLOWFIN TUNA (CENTRAL WESTERN PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	ALBACORE (SOUTH PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	ALBACORE (NORTH PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	YELLOWFIN TUNA (EASTERN TROPICAL PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	SKIPJACK TUNA (CENTRAL WESTERN PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	SKIPJACK TUNA (EASTERN TROPICAL PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	BIGEYE TUNA (PACIFIC)	WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	SWORDFISH (PACIFIC)	WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	Mahimahi (Pacific)	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Gulf of Alaska Groundfish	WESTERN / CENTRAL WALLEYE POLLOCK	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	PACIFIC COD	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	SABLEFISH	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	ARROWTOOTH FLOUNDER	NPFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	WESTERN PACIFIC OCEAN PERCH		NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	CENTRAL PACIFIC OCEAN PERCH		NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	EASTERN PACIFIC OCEAN PERCH		NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	DOVER SOLE		NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	FLATHEAD SOLE		NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	REX SOLE		NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	NORTHERN ROCK SOLE		NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	SOUTHERN ROCK SOLE		NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yelloweye Rockfish		NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	WALLEYE POLLOCK	EASTERN BERING SEA	NPFMC		No		No	No	N/A	N/A
		ALEUTIAN ISLANDS	NPFMC		No		Unknown	Unknown	N/A	N/A
		BOGOSLOF	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	PACIFIC COD		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	YELLOWFIN SOLE		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	GREENLAND TURBOT		NPFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	ROCK SOLE		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	FLATHEAD SOLE		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	EASTERN BERING SEA SABLEFISH		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ALEUTIAN ISLANDS SABLEFISH		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	EASTERN BERING SEA PACIFIC OCEAN PERCH		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ALEUTIAN ISLANDS PACIFIC OCEAN PERCH		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ATKA MACKEREL		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	BLUE KING CRAB	SAINT MATTHEWS ISLAND	NPFMC		No ⁷		Yes	N/A	continue rebuilding	2/10-year plan
Bering Sea / Aleutian Islands King and Tanner Crabs	GOLDEN KING CRAB	ALEUTIAN ISLANDS	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	RED KING CRAB	NORTON SOUND	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		PRIBILOF ISLANDS	NPFMC		No ⁷		No	Unknown ⁸	N/A	N/A
		ALEUTIAN ISLANDS	NPFMC		No ⁷		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	BERING SEA SNOW CRAB		NPFMC		No		No - rebuilding	No	continue rebuilding ²	2/10-year plan

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands King and Tanner Crabs	TANNER CRAB	BERING SEA	NPFMC		No ⁷		Yes	N/A	continue rebuilding	2/10-year plan
Atlantic Billfishes	Blue Marlin (North Atlantic)		HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶
Atlantic Billfishes	White Marlin (North Atlantic)		HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶
Atlantic Tunas, Swordfish and Sharks	BIGEYE TUNA (ATLANTIC)		HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶
Atlantic Tunas, Swordfish and Sharks	BLUEFIN TUNA (WEST ATLANTIC)		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	4/20-year plan ³⁷
Atlantic Tunas, Swordfish and Sharks	SWORDFISH (NORTH ATLANTIC)		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	3/10-year plan ³⁸
Atlantic Tunas, Swordfish and Sharks	SANDBAR SHARK		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	BLACKTIP SHARK		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	SPINNER SHARK		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	SILKY SHARK		HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	YELLOWFIN TUNA (WEST ATLANTIC)	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	ATLANTIC SHARPNOSE SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	FINETOOTH SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	BLACKNOSE SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	SHORTFIN MAKO SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	PORBEAGLE SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	BLUE SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A

Table 4. Summary of Stock Status for Species Contained in the Management Unit in Federal Fishery Management Plans

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Sea Scallop	ATLANTIC SEA SCALLOP	GEORGES BANK	NEFMC		No		No	No	N/A	rebuilt under plan
		MIDDLE ATLANTIC	NEFMC		Yes		No	No	reduce mortality	rebuilt under plan
Atlantic Salmon	Atlantic Salmon		NEFMC		No		Yes	N/A	rebuild program- ESA listed	not required ¹
Northeast Multispecies	COD	GULF OF MAINE	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	year 6 of plan*
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	year 6 of plan*
Northeast Multispecies	HADDOCK	GULF OF MAINE	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	not submitted ³
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	year 6 of plan*
Northeast Multispecies	AMERICAN PLAICE		NEFMC		Yes		No	No	reduce mortality	N/A
Northeast Multispecies	REDFISH		NEFMC		No		Yes	N/A	rebuild program	under development ⁴

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Northeast Multispecies	WITCH FLOUNDER		NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	YELLOW-TAIL FLOUNDER	GEORGES BANK	NEFMC		No		No	No	N/A	N/A
		SOUTHERN NEW ENGLAND	NEFMC		No		Yes	N/A	continue rebuilding	year 6 of plan*
		CAPE COD	NEFMC		No		No-rebuilding	No	continue rebuilding ²	not submitted ³
		MIDDLE ATLANTIC	NEFMC		Yes		Yes	N/A	reduce mortality rebuild program	not submitted ³
Northeast Multispecies	WHITE HAKE		NEFMC		Yes		Yes ⁵	N/A	reduce mortality rebuild program	under development ⁴
Northeast Multispecies	POLLOCK		NEFMC		Unknown		Unknown	Unknown	N/A	N/A
Northeast Multispecies	Ocean Pout		NEFMC		No		Yes	N/A	rebuild program	not submitted ³
Northeast Multispecies	Atlantic Halibut		NEFMC		Unknown		Yes	N/A	continue rebuilding	year 3 of plan*
Northeast Multispecies	WINDOW PANE FLOUNDER	GULF OF MAINE / GEORGES BANK	NEFMC		No		No	No	N/A	N/A
		SOUTHERN NEW ENGLAND / MIDDLE ATLANTIC	NEFMC		No		No	Yes	N/A	N/A
Northeast Multispecies	WINTER FLOUNDER	GULF OF MAINE	NEFMC	Unknown		Undefined		Unknown	N/A	N/A
		GEORGES BANK	NEFMC		No		No - rebuilding	No	continue rebuilding ²	not submitted ³
		SOUTHERN NEW ENGLAND	NEFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Northeast Multispecies	SILVER HAKE	GULF OF MAINE / NORTHERN GEORGES BANK	NEFMC		Unknown		No - rebuilding	No	continue rebuilding ²	3/10-year plan
		SOUTHERN GEORGES BANK / MIDDLE ATLANTIC	NEFMC		Unknown		Yes	N/A	continue rebuilding	3/10-year plan
Northeast Multispecies	Offshore Hake		NEFMC		Unknown		Unknown	Unknown	N/A	N/A
Northeast Multispecies	RED HAKE	GULF OF MAINE / NORTHERN GEORGES BANK	NEFMC		No		No	No	N/A	N/A
		SOUTHERN GEORGES BANK / MIDDLE ATLANTIC	NEFMC		No	Undefined ⁶		Unknown	N/A	N/A
Atlantic Herring	ATLANTIC HERRING		NEFMC		No		No	No	N/A	N/A
Monkfish	MONKFISH (NORTH)		NEFMC / MAFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	3/10-year plan
Monkfish	MONKFISH (SOUTH)		MAFMC / NEFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	3/10-year plan
Spiny Dogfish	SPINY DOGFISH		NEFMC / MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/5-year plan
Summer Flounder, Scup, and Black Sea Bass	SUMMER FLOUNDER		MAFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding ²	7/10-year plan

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Summer Flounder, Scup, and Black Sea Bass	SCUP		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	disapproved
Summer Flounder, Scup, and Black Sea Bass	BLACK SEA BASS		MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	6/10-year plan
Atlantic Bluefish	BLUEFISH (EXCEPT GULF OF MEXICO)		MAFMC		No		Yes	N/A	continue rebuilding	3/9-year plan
Atlantic Surfclam and Ocean Quahog	SURFCLAM		MAFMC	No		Undefined		Unknown	N/A	N/A
Atlantic Surfclam and Ocean Quahog	OCEAN QUOHOG		MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	SQUID	<i>ILLEX</i>	MAFMC		No		Unknown	Unknown	N/A	N/A
		<i>LOLIGO</i>	MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	ATLANTIC MACKEREL		MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	BUTTERFISH (ATLANTIC)		MAFMC		No		No	No	N/A	N/A
Tilefish	GOLDEN TILEFISH		MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	1/10-year plan
South Atlantic Golden Crab	GOLDEN CRAB		SAFMC		No		Undefined	Unknown	N/A	N/A
South Atlantic Shrimp	WHITE SHRIMP		SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Shrimp	ROCK SHRIMP		SAFMC	No			Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Shrimp	BROWN SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Shrimp	PINK SHRIMP	SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Snapper-Grouper	VERMILION SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	3/10-year plan**
South Atlantic Snapper-Grouper	Red Porgy	SAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/18-year plan**
South Atlantic Snapper-Grouper	GAG	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	RED SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Speckled Hind	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	SNOWY GROUPEr	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Warsaw Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	GOLDEN TILEFISH	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	10/15-year plan**

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	YELLOWTAIL SNAPPER	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	10/10-year plan**
South Atlantic Snapper-Grouper	RED GROUPE	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Black Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	2/15-year plan**
South Atlantic Snapper-Grouper	BLACK SEA BASS	SAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/10-year plan**
South Atlantic Snapper-Grouper	Goliath Grouper (Jewfish)	SAFMC		No ⁷	Yes		N/A	continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	Nassau Grouper	SAFMC		No ⁷	Yes		N/A	continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	MUTTON SNAPPER	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	GREATER AMBERJACK	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	Wreckfish	SAFMC		No	No		Unknown ⁸	N/A	N/A
South Atlantic Snapper-Grouper	Yellowedge Grouper	SAFMC		No	No		Unknown ⁸	N/A	N/A
South Atlantic Snapper-Grouper	Scamp	SAFMC		No	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	WHITE GRUNT	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	GRAY (MANGROVE) SNAPPER	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Lane Snapper	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	GRAY TRIGGERFISH	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Queen Triggerfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Ocean Triggerfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellow Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	BLUE RUNNER	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	CREVALLE JACK	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Bar Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Lesser Amberjack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Almaco Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Banded Rudderfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	SPADEFISH	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Black Margate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Porkfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Margate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Tomtate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Smallmouth Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	French Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Spanish Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Cottonwick	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Sailors Choice	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	BLUE STRIPE GRUNT	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Hogfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Puddingwife	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Black Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Queen Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Schoolmaster	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Blackfin Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Cubera Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Mahogany Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Dog Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Silk Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Blueline Tilefish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Sand Tilefish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Bank Sea Bass	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Rock Sea Bass	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Rock Hind	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Graysby	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Coney	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Red Hind	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Misty Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellowmouth Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Tiger Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellowfin Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	SHEEPSHEAD	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Grass Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Jolthead Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Saucereye Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Whitebone Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Knobbed Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Longspine Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Scup	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
Atlantic Coast Red Drum	RED DRUM	SAFMC		Yes ⁷	Yes		N/A	reduce mortality continue rebuilding	year 11 of plan*
South Atlantic Corals ⁹	Fire Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Hydrocorals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Octocorals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Stony Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
South Atlantic Corals ⁹	Black Corals	SAFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Stone Crab	STONE CRAB	GMFMC		No	No		No	N/A	N/A
Gulf of Mexico Shrimp	BROWN SHRIMP	GMFMC	No			No	No	N/A	N/A
Gulf of Mexico Shrimp	PINK SHRIMP	GMFMC	No			No	No	N/A	N/A
Gulf of Mexico Shrimp	WHITE SHRIMP	GMFMC	No			No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Mexico Shrimp	ROYAL RED SHRIMP		GMFMC	No		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals ¹⁰	Fire Corals		GMFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals ¹⁰	Hydrocorals		GMFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals ¹⁰	Octocorals		GMFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals ¹⁰	Stony Corals		GMFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals ¹⁰	Black Corals		GMFMC	No ⁷		Undefined		Unknown	N/A	N/A
Gulf of Mexico / South Atlantic Spiny Lobster	SPINY LOBSTER		SAFMC / GMFMC		No	No		No	N/A	N/A
Gulf of Mexico / South Atlantic Spiny Lobster	Slipper Lobster		SAFMC / GMFMC	Undefined		Undefined		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	KING MACKEREL	GULF GROUP	SAFMC / GMFMC		No	Yes		N/A	continue rebuilding	year 16 of plan*
		ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	SPANISH MACKEREL	GULF GROUP	SAFMC / GMFMC		No	No		No	N/A	N/A
		ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	DOLPHIN	SAFMC / GMFMC		No	No		No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	COBIA	SAFMC/ GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	CERO	SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	LITTLE TUNNY	SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	BLUEFISH (GULF OF MEXICO ONLY)	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	RED SNAPPER	GMFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	11/29-year plan**
Reef Fish Resources of the Gulf of Mexico	RED GROUPER	GMFMC		Yes		Yes	N/A	reduce mortality rebuild program	under development
Reef Fish Resources of the Gulf of Mexico	Nassau Grouper	GMFMC		No ⁷	Yes		N/A	continue rebuilding	year 4 of plan*
Reef Fish Resources of the Gulf of Mexico	Goliath Grouper (Jewfish)	GMFMC		No ⁷	Yes		N/A	continue rebuilding	year 11 of plan*
Reef Fish Resources of the Gulf of Mexico	GREATER AMBERJACK	GMFMC		No	Yes		Unknown ⁸	rebuild program	not submitted ¹¹

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	GAG	GMFMC		Yes	No		Yes	reduce mortality	N/A
Reef Fish Resources of the Gulf of Mexico	VERMILION SNAPPER	GMFMC		Yes	Unknown		Unknown	reduce mortality	N/A
Reef Fish Resources of the Gulf of Mexico	GRAY TRIGGERFISH	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Lesser Amberjack	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Almaco Jack	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Banded Rudderfish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Queen Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	MUTTON SNAPPER	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Schoolmaster	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Blackfin Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Cubera Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	GRAY (MANGROVE) SNAPPER	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Dog Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	Mahogany Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	LANE SNAPPER	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Silk Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	YELLOWTAIL SNAPPER	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Wenchman	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Goldface Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	BLACKLINE TILEFISH	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Anchor Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Blueline Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Rock Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Speckled Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	YELLOWEDGE GROUPER	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	Red Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Misty Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Warsaw Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Snowy Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	BLACK GROUPE	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Yellowmouth Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Scamp	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Yellowfin Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Hogfish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Dwarf Sand Perch	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Sand Perch	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Gulf of Mexico Red Drum	RED DRUM	GMFMC		Yes ⁷	Yes		N/A	continue rebuilding	year 11 of plan*
Caribbean Spiny Lobster ¹²	SPINY LOBSTER	CFMC	No		No		No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Nassau Grouper	CFMC	No ⁷		Yes		N/A	continue rebuilding	year 11 of plan*
Caribbean Reef Fish ¹³	Goliath Grouper (Jewfish)	CFMC	No ⁷		Yes		N/A	continue rebuilding	year 8 of plan*
Caribbean Reef Fish ¹³	Ocean Surgeonfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Doctorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blue Tang	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Frogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Flamefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Conchfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Trumpetfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Scrawled Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Queen Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Whitespotted Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Ocean Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Black Durgon	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sargassum Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Redlip Blenny	CFMC	Unknown		Unknown		Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Peacock Flounder	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellow Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blue Runner	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Horse-eye Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Black Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Bar Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Greater Amberjack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Almaco Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Longsnout Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Foureye Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Spotfin Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Banded Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Redspotted Hawkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Flying Gurnard	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Atlantic Spadefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Neon Goby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Rusty Goby	CFMC	Unknown		Unknown		Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Royal Gramma	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Porkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Margate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Tomtate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	French Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	White Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Bluestriped Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Longspine Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blackbar Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Cardinal Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Spanish Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Creole Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowcheek Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowhead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Clown Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Puddingwife	CFMC	Unknown		Unknown		Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Pearly Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Green Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Bluehead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Black Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Queen Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Mutton Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Schoolmaster	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blackfin Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Gray Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Dog Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Mahogany Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Lane Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Silk Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowtail Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Wenchman	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Vermilion Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Blackline Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sand Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellow Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Spotted Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Chain Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Green Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Goldentail Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Batfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Goldspotted Eel	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowhead Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Dusky Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Spotted Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Honeycomb Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Scrawled Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Smooth Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Cherubfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Queen Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Rock Beauty	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Gray Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	French Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sergeant Major	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blue Chromis	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sunshinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowtail Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Dusky Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Beaugregory	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Bicolor Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Threespot Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Bigeye	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Glasseye Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Midnight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Blue Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Striped Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Rainbow Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Princess Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Queen Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Redband Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Redtail Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Redfin Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Stoplight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	High-hat	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Jackknife-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Spotted Drum	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Scorpionfishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Rock Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Graysby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowedge Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Coney	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Red Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Red Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Misty Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Butter Hamlet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Swissguard Basslet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Yellowfin Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Tiger Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Creole-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Greater Soapfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Orangeback Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Lantern Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Tobaccofish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Harlequin Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Chalk Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Caribbean Tonguefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sea Bream	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Jolthead Porgy	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sheepshead Porgy	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Pluma	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish ¹³	Seahorses	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Pipefishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sand Diver	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Sharpnose Puffer	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish ¹³	Porcupinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	QUEEN CONCH	CFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	year 5 of plan*
Caribbean Queen Conch ¹⁴	Atlantic Triton's Trumpet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Cameo Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Caribbean Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Caribbean Vase	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Flame Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Green Star Shell	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Hawkwing Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Milk Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Roostertail Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	True Tulip	CFMC	Undefined		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Queen Conch ¹⁴	West Indian Fighting Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch ¹⁴	Whelk (West Indian Top Shell)	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Hydrocorals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Soft Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Gorgonian Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Hard Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Black Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	False Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Sponges	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Hydroids	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Colonial Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Annelid Worms	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Other Gastropods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Bivalves	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Cephalopods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Crustaceans	CFMC	Unknown		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Corals ¹⁵	Bryozoans	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Feather Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Sea Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Brittle and Basket Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Sea Urchins	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Sea Cucumbers	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Tunicates	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Green Algae	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Red Algae	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals ¹⁵	Seagrasses	CFMC	Undefined		Undefined		Unknown	N/A	N/A
	CALIFORNIA CENTRAL VALLEY CHINOOK								
WA, OR, CA Salmon	SACRAMENTO RIVER FALL	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	Sacramento River Spring (Central Valley Spring - ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Sacramento River Winter (ESA Endangered 1994)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
	NORTHERN CALIFORNIA COAST CHINOOK								

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	Eel, Mattole, Mad, and Smith Rivers ¹⁷ (Fall and Spring) (Eel, Mattole, and Mad River stocks - (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	KLAMATH RIVER FALL (KLAMATH AND TRINITY RIVERS)	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	Klamath River Spring (Klamath and Trinity Rivers)	PFMC		Unknown ¹⁸		Unknown ¹⁸	Unknown	N/A	N/A
	OREGON COAST CHINOOK								
WA, OR, CA Salmon	SOUTHERN OREGON (Aggregate of fall and spring stocks in all streams south of Elk River; Rogue River fall stock is used to indicate relative abundance and ocean contribution rates)	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	CENTRAL AND NORTHERN OREGON (Aggregate of fall and spring stocks in all streams from the Elk River to just south of the Columbia River)	PFMC		No		No	No	N/A	N/A
	COLUMBIA RIVER BASIN CHINOOK								
WA, OR, CA Salmon	NORTH LEWIS RIVER FALL (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	LOWER RIVER HATCHERY FALL	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	LOWER RIVER HATCHERY SPRING	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	Upper Willamette Spring (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Mid-River Bright Hatchery (Fall)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	SPRING CREEK HATCHERY (FALL)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Klickitat, Warm Springs, John Day, and Yakima Rivers (Spring)	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	SNAKE RIVER FALL (ESA Threatened 1992)	PFMC		N/A ¹⁶ Exception 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Snake River Spring / Summer (ESA Threatened 1992)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Upper River Bright (Fall)	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Upper River Summer	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Upper River Spring (ESA Endangered 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
	WASHINGTON COAST CHINOOK								
WA, OR, CA Salmon	Willapa Bay Fall (natural)	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	Willapa Bay Fall (hatchery)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Grays Harbor Fall	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Grays Harbor Spring	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Quinalt Fall	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Queets Fall	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Queets Spring / Summer	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Hoh Fall	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Hoh Spring / Summer	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Quillayute Fall	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Quillayute Spring / Summer	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	Hoko Summer / Fall (Western Strait of Juan de Fuca)	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
	PUGET SOUND CHINOOK								
WA, OR, CA Salmon	Eastern Strait of Juan de Fuca Summer / Fall (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Skokomish Summer / Fall (Hood Canal) (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Nooksack Spring (early) (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Skagit Summer / Fall (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Skagit Spring (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Stillaguamish Summer / Fall (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Snohomish Summer / Fall (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Cedar River Summer / Fall (Lake Washington) (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	White River Spring (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	Green River Summer / Fall (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Nisqually River Summer / Fall (South Puget Sound) (ESA Threatened 1999)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
	SOUTHERN BRITISH COLUMBIA CHINOOK								
WA, OR, CA Salmon	Coastal Stocks ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Fraser River ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
	OREGON PRODUCTION INDEX AREA COHO								
WA, OR, CA Salmon	Central California Coast (ESA Threatened 1996)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Northern California (ESA Threatened 1997)	PFMC		N/A ¹⁶ Exception 2 & 3		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	OREGON COASTAL NATURAL comprised of Southern, South-Central, North- Central, and Northern Oregon stocks. Southern Stock - ESA Threatened 1998)	PFMC		No ²⁰		No	No	N/A	N/A
WA, OR, CA Salmon	COLUMBIA RIVER LATE (HATCHERY)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Salmon	COLUMBIA RIVER EARLY (HATCHERY)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Columbia River (Natural)	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
	WASHINGTON COASTAL COHO								
WA, OR, CA Salmon	WILLAPA BAY (HATCHERY)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	GRAYS HARBOR	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	QUINAULT (HATCHERY)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	QUEETS	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	HOH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	QUILLAYUTE FALL	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	QUILLAYUTE SUMMER (HATCHERY)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	WESTERN STRAIT OF JUAN DE FUCA (Sekiu, Hoko, Clallam, Pysht, East and West, and Lyre Rivers and miscellaneous streams west of the Elwha River)	PFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	PUGET SOUND COHO								
WA, OR, CA Salmon	EASTERN STRAIT OF JUAN DE FUCA (Streams east of Salt Creek through Chimacum Creek)	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	HOOD CANAL	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	SKAGIT	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	STILLAGUAMISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	SNOHOMISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Salmon	South Puget Sound (Hatchery)	PFMC		N/A ¹⁶ Exception 1		N/A	N/A	N/A	N/A
	SOUTHERN BRITISH COLUMBIA COAST COHO								
WA, OR, CA Salmon	Coastal Stocks ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Fraser River ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
	PINK (ODD-NUMBERED YEARS)								
WA, OR, CA Salmon	Puget Sound ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Fraser River ¹⁹	PFMC		N/A ¹⁶ Exception 2		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	OTHER SALMONIDS	PFMC							
WA, OR, CA Salmon	Sockeye Salmon	PFMC		N/A ²¹		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Chum Salmon	PFMC		N/A ²¹		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Pink Salmon (even-numbered years)	PFMC		N/A ²¹		N/A	N/A	N/A	N/A
WA, OR, CA Salmon	Steelhead	PFMC		N/A ²¹		N/A	N/A	N/A	N/A
Coastal Pelagic Species	PACIFIC (CHUB) MACKEREL	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	PACIFIC SARDINE	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	JACK MACKEREL	PFMC		No	Undefined		Unknown	N/A	N/A
Coastal Pelagic Species	NORTHERN ANCHOVY (CENTRAL SUBPOPULATION)	PFMC		No	Undefined		Unknown	N/A	N/A
Coastal Pelagic Species	NORTHERN ANCHOVY (NORTHERN SUBPOPULATION)	PFMC	Undefined		Undefined		Unknown	N/A	N/A
Coastal Pelagic Species	MARKET SQUID	PFMC	Undefined		Undefined		Unknown	N/A	N/A
WA, OR, CA Groundfish	LINGCOD	PFMC		No		Yes	N/A	continue rebuilding	plan under development ²²
WA, OR, CA Groundfish	PACIFIC OCEAN PERCH	PFMC		No		Yes	N/A	continue rebuilding	2/42-year interim plan ²²
WA, OR, CA Groundfish	BOCACCIO	PFMC		No		Yes	N/A	continue rebuilding	2/34-year interim plan ²²

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Groundfish	CANARY ROCKFISH	PFMC		No		Yes	N/A	continue rebuilding	2/57-year interim plan ²²
WA, OR, CA Groundfish	Cowcod	PFMC		No		Yes	N/A	continue rebuilding	2/95-year interim plan ²²
WA, OR, CA Groundfish	DARKBLOTCHED ROCKFISH	PFMC		No		Yes	N/A	rebuild program	under development ²³
WA, OR, CA Groundfish	WIDOW ROCKFISH	PFMC		No		Yes	N/A	rebuild program	under development ²³
WA, OR, CA Groundfish	YELLOWEYE ROCKFISH	PFMC		No		No	Yes	N/A	N/A
WA, OR, CA Groundfish	BANK ROCKFISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	SHORTSPINE THORNYHEAD	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	LONGSPINE THORNYHEAD	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	YELLOWTAIL ROCKFISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	PACIFIC WHITING	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	SABLEFISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	DOVER SOLE	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	ENGLISH SOLE	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	PETRALE SOLE	PFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Groundfish	CHILIPEPPER ROCKFISH	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	Shortbelly Rockfish	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	ARROWTOOTH FLOUNDER	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	BLACK ROCKFISH (NORTH)	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	SILVERGREY ROCKFISH	PFMC		No		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	PACIFIC COD	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Butter Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Curlfin Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Flathead Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	PACIFIC SANDDAB	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	REX SOLE	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Rock Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	SAND SOLE	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	STARRY FLOUNDER	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Aurora Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Black-and-Yellow Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	BLACKGILL ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Groundfish	BLUE ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Bronzespotted Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Brown Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Calico Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	China Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	COPPER ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Dusty Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Flag Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Gopher Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Grass Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Greenblotched Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Greenspotted Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	GREENSTRIPED ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Harlequin Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Honeycomb Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Kelp Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Mexican Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Groundfish	Olive Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Pink Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Quillback Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Redbanded Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	REDSTRIPE ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Rosethorn Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Rosy Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Rougheye Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	SHARPCHIN ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Shortraker Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Speckled Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	SPLITNOSE ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Squarespot Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Starry Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Stripetail Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Tiger Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	VERMILION ROCKFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
WA, OR, CA Groundfish	Yellowmouth Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Leopard Shark	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Soupin Shark	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	SPINY DOGFISH	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	BIG SKATE	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	CALIFORNIA SKATE	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	LONGNOSE SKATE	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Ratfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Finescale Codling	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Pacific Rattail	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Cabezon	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Kelp Greenling	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	California Scorpionfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Treefish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Western Pacific Crustaceans	SPINY LOBSTER (2 species)	WPFMC	No		No		Unknown ⁸	N/A	N/A
Western Pacific Crustaceans	Slipper Lobster	WPFMC	No		No		Unknown ⁸	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Western Pacific Crustaceans	Kona Crab	WPFMC	Undefined		Undefined		Unknown	N/A	N/A
Western Pacific Corals ²⁴	Pink Corals (3 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals ²⁴	Gold Corals (4 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals ²⁴	Bamboo Corals (2 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals ²⁴	Black Corals (3 species)	WPFMC		No		No	No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Pelagic Armorhead	WPFMC	Undefined		Yes		N/A	continue rebuilding	16/19-year plan**
Bottomfish and Seamount Groundfish of the Western Pacific	Seabass (Main Hawaiian Islands)	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Squirrelfish Snapper (Northwest and Main Hawaiian Islands)	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Longtail Snapper (Northwest and Main Hawaiian Islands)	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Silverjaw Jobfish	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Gray Jobfish	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Bluestripe Snapper	WPFMC	Undefined		No		No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bottomfish and Seamount Groundfish of the Western Pacific	Yellowtail Snapper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	PINK SNAPPER	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Yelloweye Snapper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper <u>Pristipomoides sieboldii</u>	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper <u>Pristipomoides zonatus</u>	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Giant Trevally	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Black Jack	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Thick Lipped Trevally	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Amberjack	WPFMC	Undefined		No		No	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bottomfish and Seamount Groundfish of the Western Pacific	Blacktip Grouper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Seabass (Northwest Hawaiian Islands)	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Lunartail Grouper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Ambon Emperor	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Redgill Emperor	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Alfonsin	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Ratfish	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	YELLOWFIN TUNA (CENTRAL WESTERN PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	ALBACORE (SOUTH PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	ALBACORE (NORTH PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	YELLOWFIN TUNA (EASTERN TROPICAL PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	SKIPJACK TUNA (CENTRAL WESTERN PACIFIC)	WPFMC	Undefined		No		No	N/A	N/A

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				Pre SFA	Post SFA	Pre SFA	Post SFA			
Western Pacific Pelagics	SKIPJACK TUNA (EASTERN TROPICAL PACIFIC)		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	Striped Marlin		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	Black Marlin		WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	BIGEYE TUNA (PACIFIC)		WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	Other tuna relatives	<u>Auxis spp.</u>	WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
		<u>Scomber spp.</u>	WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
		<u>Allothunnus spp.</u>	WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	SWORDFISH (PACIFIC)		WPFMC	Undefined		No		Unknown ⁸	N/A	N/A
Western Pacific Pelagics	Pomfret		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Sailfish (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Shortbill Spearfish (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Wahoo (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Mahimahi (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Pelagic Sharks (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Blue Marlin (Pacific)		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Opah		WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Oilfish		WPFMC	Undefined		Unknown		Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Western Pacific Pelagics	Escolar	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Gulf of Alaska Groundfish	WESTERN / CENTRAL WALLEYE POLLOCK	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	PACIFIC COD	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	SABLEFISH	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	SHORTSPINE THORNYHEAD	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	ARROWTOOTH FLOUNDER	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	WESTERN PACIFIC OCEAN PERCH	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	CENTRAL PACIFIC OCEAN PERCH	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	EASTERN PACIFIC OCEAN PERCH	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	Northern Rockfish	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	EASTERN WALLEYE POLLOCK	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	ATKA MACKEREL	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	ALASKA PLAICE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	BUTTER SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Deepsea Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	DOVER SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	ENGLISH SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	FLATHEAD SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Greenland Turbot	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	REX SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	NORTHERN ROCK SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	SOUTHERN ROCK SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sand Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	STARRY FLOUNDER	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	YELLOWFIN SOLE	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	DUSKY ROCKFISH	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yelloweye Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Aurora Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blackgill Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bocaccio	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Chilipepper	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Darkblotched Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Greenstriped Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	HARLEQUIN ROCKFISH	NPFMC		No		Unknown	Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Pygmy Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Redbanded Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Redstripe Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Rougheye Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	SHARPCHIN ROCKFISH	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Shortbelly Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	SHORTRAKER ROCKFISH	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Silvergrey Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Splitnose Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Stripetail Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Vermilion Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowmouth Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	C-O Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Curlfin Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Hybrid Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longhead Dab	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Pacific Sanddab	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A

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			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Petrale Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Roughscale Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Slender Sole	NPFMC		Unknown ²⁵		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	BLACK ROCKFISH	NPFMC		Unknown ²⁶		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blue Rockfish	NPFMC		Unknown ²⁶		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Widow Rockfish	NPFMC		Unknown ²⁶		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowtail Rockfish	NPFMC		Unknown ²⁶		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Canary Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	China Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Copper Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Quillback Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Rosethorn Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Tiger Rockfish	NPFMC		Unknown ²⁷		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Broad Banded Thornyhead	NPFMC		Unknown ²⁸		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longspine Thornyhead	NPFMC		Unknown ²⁸		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blue Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Brown Cat Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Pacific Sleeper Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Salmon Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sixgill Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Spiny Dogfish Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Alaska Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Aleutian Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bering Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Big Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Black Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Commander Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longnose Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Mud Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Whiteblotched Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Armorhead Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bigmouth Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blackfin Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Dusky Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Great Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Red Irish Lord	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Ribbed Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Roughspine Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Spinyhead Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Tadpole Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Thorny Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellow Irish Lord	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Ocotpus <u>Octopus dofleini</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Octopus <u>Octopus leioderma</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Octopus <u>Opisthoteuthis californica</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	SQUID <u>BERRYTEUTHIS MAGISTER</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid <u>Gonatopsis borealis</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid <u>Gonatopsis makko</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid <u>Gonatus sp.</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid <u>Loligo opalescens</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid <u>Moroteuthis robusta</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	SQUID <u>ONYCHOTEUTHIS</u> <u>BOREALIJAPONICUS</u>		NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Alaska High Seas Salmon	PINK SALMON		NPFMC		No	No		No	N/A	N/A
Alaska High Seas Salmon	SOCKEYE SALMON		NPFMC		No	No		No	N/A	N/A
Alaska High Seas Salmon	CHUM SALMON		NPFMC		No	No		No	N/A	N/A
Alaska High Seas Salmon	COHO SALMON		NPFMC		No	No		No	N/A	N/A
Alaska High Seas Salmon	CHINOOK SALMON		NPFMC		No	No		No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	WALLEYE POLLOCK	EASTERN BERING SEA	NPFMC		No		No	No	N/A	N/A
		ALEUTIAN ISLANDS	NPFMC		No		Unknown	Unknown	N/A	N/A
		BOGOSLOF	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	PACIFIC COD		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	YELLOWFIN SOLE		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	GREENLAND TURBOT		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ARROWTOOTH FLOUNDER		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ROCK SOLE		NPFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	FLATHEAD SOLE	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	EASTERN BERING SEA SABLEFISH	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ALEUTIAN ISLANDS SABLEFISH	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	EASTERN BERING SEA PACIFIC OCEAN PERCH	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ALEUTIAN ISLANDS PACIFIC OCEAN PERCH	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ATKA MACKEREL	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	ALASKA PLAICE	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	SQUID <u>BERRYTEUTHIS MAGISTER</u>	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	SQUID <u>ONYCHOTEUTHIS BOREALIJAPONICUS</u>	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longspine Thornyhead	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	SHORTSPINE THORNYHEAD	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Northern Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bering Flounder	NPFMC		Unknown ²⁹		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Kamchatka Flounder	NPFMC		Unknown ³⁰		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sharpchin Rockfish	NPFMC		Unknown ³¹		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Shortraker Rockfish	NPFMC		Unknown ³²		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Rougheye Rockfish	NPFMC		Unknown ³²		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Arctic Flounder	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	BUTTER SOLE	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	C-O Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	California Tonguefish	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Curlfin Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	DOVER SOLE	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	English Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Hybrid Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Longhead Dab	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Sanddab	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Petrale Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	REX SOLE	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Roughscale Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sand Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Slender Sole	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	STARRY FLOUNDER	NPFMC		Unknown ³³		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aurora Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Black Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blackgill Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blue Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bocaccio	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Brown Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Canary Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Chameleon Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Chilipepper	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Copper Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Darkblotched Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	DUSKY ROCKFISH	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Gray Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Greenstriped Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Harlequin Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pink Rose Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pygmy Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Redbanded Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Redstripe Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Rosethorn Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Rosy Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Silvergrey Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Splitnose Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Stripetail Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Tiger Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Vermilion Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Widow Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yelloweye Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellowmouth Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellowtail Rockfish	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Broad Banded Thornyhead	NPFMC		Unknown ³⁴		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Antlered Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Armorhead Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bigmouth Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blackfin Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blob Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Brown Irish Lord	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Butterfly Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Calico Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Crested Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Dusky Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Great Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Staghorn Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Plain Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Red Irish Lord	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Ribbed Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Scissortail Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Shorthorn Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Spinyhead Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Tadpole Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Thorny Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Warty Sculpin	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellow Irish Lord	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Alaska Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aleutian Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bering Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Big Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Black Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Commander Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Golden Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longnose Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Mud Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Okhotsk Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	White-Blotched Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Whitebrow Skate	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Sleeper Shark	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Salmon Shark	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Spiny Dogfish Shark	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Octopus <u>Octopus dofleini</u>	NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
				Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Octopus <i>Opisthoteuthis californica</i>		NPFMC		Unknown ³⁵		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	BLUE KING CRAB	PRIBILOF ISLANDS	NPFMC		No ⁷		No	No	N/A	N/A
		SAINT MATTHEWS ISLAND	NPFMC		No ⁷		Yes	N/A	continue rebuilding	2/10-year plan
		SAINT LAWRENCE ISLAND	NPFMC		No ⁷		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	GOLDEN KING CRAB	ALEUTIAN ISLANDS	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		PRIBILOF ISLANDS	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		NORTHERN DISTRICT	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	RED KING CRAB	BRISTOL BAY	NPFMC		No		No	No	N/A	N/A
		NORTON SOUND	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		PRIBILOF ISLANDS	NPFMC		No ⁷		No	Unknown ⁸	N/A	N/A
		ALEUTIAN ISLANDS	NPFMC		No ⁷		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	ALEUTIAN ISLANDS SCARLET KING CRAB		NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	BERING SEA SNOW CRAB		NPFMC		No		No - rebuilding	No	continue rebuilding ²	2/10-year plan

Fishery Management Plan	Stock (Species in Bold are Major Stocks)		Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress	
				Pre SFA	Post SFA	Pre SFA	Post SFA				
Bering Sea / Aleutian Islands King and Tanner Crabs	TANNER CRAB	BERING SEA	NPFMC		No ⁷		Yes	N/A	continue rebuilding	2/10-year plan	
		BERING SEA TRIANGLE	NPFMC		No ⁷		Unknown	Unknown	N/A	N/A	
		BERING SEA GROOVED	NPFMC		Unknown		Unknown	Unknown	Unknown	N/A	N/A
		EASTERN ALEUTIAN ISLANDS	NPFMC		Unknown		Unknown	Unknown	Unknown	N/A	N/A
		EASTERN ALEUTIAN ISLANDS TRIANGLE	NPFMC		Unknown		Unknown	Unknown	Unknown	N/A	N/A
		EASTERN ALEUTIAN ISLANDS GROOVED	NPFMC		Unknown		Unknown	Unknown	Unknown	N/A	N/A
		ADAK (WESTERN ALEUTIANS)	NPFMC		No ⁷		Unknown	Unknown	Unknown	N/A	N/A
		WESTERN ALEUTIAN ISLANDS GROOVED	NPFMC		No ⁷		Unknown	Unknown	Unknown	N/A	N/A
Alaska Scallops	ALASKA SCALLOPS	NPFMC		No		No	No	No	N/A	N/A	
Atlantic Billfishes	Blue Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶		
Atlantic Billfishes	White Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶		
Atlantic Billfishes	Sailfish (West Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶		
Atlantic Billfishes	Spearfish (West Atlantic)	HMS		Unknown		Unknown	Unknown	N/A	N/A		

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	BIGEYE TUNA (ATLANTIC)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented ³⁶
Atlantic Tunas, Swordfish and Sharks	ALBACORE (NORTH ATLANTIC)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	Preferred alternative discussed in draft EA for swordfish
Atlantic Tunas, Swordfish and Sharks	BLUEFIN TUNA (WEST ATLANTIC)	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	4/20-year plan ³⁷
Atlantic Tunas, Swordfish and Sharks	SWORDFISH (NORTH ATLANTIC)	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	3/10-year plan ³⁸
Atlantic Tunas, Swordfish and Sharks	SANDBAR SHARK	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	BLACKTIP SHARK	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	SPINNER SHARK	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	SILKY SHARK	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Dusky Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Bull Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Bignose Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Narrowtooth Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Galapagos Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Night Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Caribbean Reef Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Lemon Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Bigeye Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Nurse Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Scalloped Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Great Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Smooth Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Whale Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	Basking Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	White Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan ³⁹
Atlantic Tunas, Swordfish and Sharks	YELLOWFIN TUNA (WEST ATLANTIC)	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	ATLANTIC SHARPNOSE SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Caribbean Sharpnose Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	FINETOOTH SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	BLACKNOSE SHARK	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smalltail Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bonnethead Shark	HMS		No		No ⁴⁰	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Atlantic Angel Shark	HMS		No		No	No	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	SKIPJACK TUNA (WEST ATLANTIC)	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	SHORTFIN MAKO SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	PORBEAGLE SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	BLUE SHARK	HMS		Unknown		Unknown ⁴¹	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Longfin Mako Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Thresher Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigeye Thresher Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Oceanic Whitetip Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Sevengill Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Sixgill Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigeye Sixgill Sharks	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Iceland Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smallfin Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Deepwater Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Broadgill Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Marbled Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Blotched Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Chain Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Dwarf Catshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Japanese Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Little Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Kitefin Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Flatnose Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Portuguese Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Greenland Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Lined Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Broadband Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Caribbean Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Great Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smooth Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Fringefin Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Green Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Cookiecutter Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigtooth Cookiecutter	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smallmouth Velvet Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Pygmy Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Roughskin Spiny Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Blainville's Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Cuban Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bramble Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	American Sawshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Florida Smoothhound	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smooth Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A

* Pre-SFA rebuilding plan with no timeline defined.

** Pre-SFA Rebuilding Plan with a timeline defined.

1. A formal rebuilding program was not required or submitted because either no fishing is allowed in this fishery, or incidental harvest is limited to levels necessary to meet Endangered Species Act (ESA) requirements. A recovery plan under the ESA is being developed.
2. This stock is currently above the minimum stock size threshold; however, it was previously below this level and rebuilding must continue until the stock is at a level consistent with MSY.
3. There is no specific rebuilding plan for this stock, but it is indirectly rebuilding under the rebuilding program for other groundfish stocks.
4. The New England Fishery Management Council will be notified upon publication of this report that this stock is overfished and they are required to submit a rebuilding program within one year of that date.
5. White Hake was listed as overfished in the 1999 Report and in a state of rebuilding in the 2000 Report. For this year's report, the stock size and fishing mortality rate were re-estimated using provisionally accepted reference points against the current overfishing definition, and the stock size is again listed as Overfished based on the revised criteria (SAW-33).
6. Last year's listing as Overfished was incorrect. There is no definition to determine the overfished status of this stock.
7. Fishery in the EEZ is closed.
8. While the biomass level is known, determining whether the stock is approaching an overfished condition requires an additional level of analysis which has not been done.
9. The full name for this FMP is the Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic Region.
10. The full name for this FMP is the Coral and Coral Reefs of the Gulf of Mexico.
11. The Gulf of Mexico Fishery Management Council was notified on February 12, 2001 that this stock is overfished and they are required to submit a rebuilding program within one year of that date.
12. The full name for this FMP is the Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands.
13. The full name for this FMP is the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands.
14. The full name for this FMP is the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.

15. The full name for this FMP is the Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin Islands.
16. The Salmon FMP contains three exceptions to the application of overfishing criteria and subsequent Council actions for stocks or stock complexes with conservation objectives: Exceptions: (1) hatchery stocks, (2) stocks for which Council management actions have inconsequential impacts, and (3) stocks listed under the ESA.
17. The Smith River Chinook is not part of the California Coastal Chinook ESU, which includes the Eel, Mattole, and Mad River stocks. However, there are no conservation objectives defined for the northern coastal chinook stocks. These stocks are managed consistent with NMFS jeopardy standard / recovery plans for the California Coastal Chinook ESU. The Smith River stock is therefore also managed under the NMFS jeopardy standard / recovery plans.
18. Amendment 14 to the Salmon FMP added Klamath River spring chinook to the list of stocks managed under the FMP but did not identify a conservation objective. The PFMC has not yet developed an objective. Prior to Amendment 14, Klamath River spring chinook were regarded as one of several sub-basin stocks protected by the Klamath River fall chinook objective. The NMFS chinook status review included Klamath River fall and spring chinook as part of the same ESU.
19. The PFMC manages these fisheries consistent with provisions of the Pacific Salmon Treaty. These stocks originate in either U.S. or Canadian waters and are managed as mixed stock fisheries.
20. Oregon Coastal Natural (OCN) coho are managed subject to the provisions of Amendment 13 to the Salmon FMP. The southern stock complex of the Oregon Coastal Natural coho is listed under the ESA as part of the Southern Oregon / Northern California Coasts Coho ESU and meets exception 3. The northern components were delisted as a result of the recent Alsea Valley v. Evans court decision. However, the OCN stocks have met their management objectives in recent years.
21. The Salmon FMP contains no fishery management objectives for sockeye, chum, even-year pink, and steelhead stocks because impacts are very limited and considered inconsequential.
22. A recent court ruling (National Resource Defense Council, Inc. v. Evans) determined that rebuilding plans under the Pacific Coast Groundfish Fishery Management Plan must be in the form of plan amendments or proposed regulations. Therefore, portions of Amendment 12 to the FMP that provided a framework for rebuilding plans were set aside. New Draft FMP amendment(s) that address the rebuilding measures are being developed, and should be presented as final amendment(s) for adoption at the Council's June 2002 meeting.
23. The Pacific Fishery Management Council was notified on January 11, 2001 that this stock is overfished and they are required to submit a rebuilding program within one year of that date.
24. The full name for this FMP is the Precious Corals Fishery of the Western Pacific Region.

25. The fishing mortality rate determination for this species complex (Shallow Water Flatfish complex) is “not overfished” based on Alaska Plaice, Butter Sole, English Sole, Northern Rock Sole, Southern Rock Sole, Sand Sole, Starry Flounder, and Yellowfin Sole; no fishing mortality rate determination can be made about the other species.
26. The fishing mortality rate determination for this species complex (Pelagic Shelf Rockfish complex) is “not overfished” based on Dusky Rockfish; no fishing mortality rate determination can be made about the other species.
27. The fishing mortality rate determination for this species complex (Demersal Shelf Rockfish complex) is “not overfished” based on Yelloweye Rockfish; no fishing mortality rate determination can be made about the other species.
28. The fishing mortality rate determination for this species complex (Thornyhead Rockfish complex) is “not overfished” based on Shortspine Thornyhead; no fishing mortality rate determination can be made about the other species.
29. The fishing mortality rate determination for this species complex (Flathead Sole complex) is “not overfished” based on Flathead Sole; no fishing mortality rate determination can be made about the other species.
30. The fishing mortality rate determination for this species complex (Arrowtooth Flounder complex) is “not overfished” based on Arrowtooth Flounder; no fishing mortality rate determination can be made about the other species.
31. The fishing mortality rate determination for this species complex (Sharpchin / Northern Rockfish complex) is “not overfished” based on Northern Rockfish; no fishing mortality rate determination can be made about the other species.
32. The fishing mortality rate determination for this species complex (Shortraker / Rougheye Rockfish complex) is “not overfished” based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.
33. The fishing mortality rate determination for this species complex (Other Flatfish complex) is “not overfished” based on Alaska Plaice; no fishing mortality rate determination can be made about the other species.
34. The fishing mortality rate determination for this species complex (Other Rockfish complex) is “not overfished” based on Longspine Thornyhead and Shortspine Thornyhead; no fishing mortality rate determination can be made about the other species.
35. The fishing mortality rate determination for this species complex (Other Species complex) is “not overfished” based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.

36. For the overfished Atlantic billfish (blue and white marlins), Amendment One to the Atlantic Billfish FMP established a foundation to develop an international rebuilding plan. Such an international plan was adopted in 2000 by ICCAT. For the overfished Atlantic bigeye tuna, the HMS FMP established the foundation to develop an international 10-year rebuilding program. While steps have been taken internationally to pursue recovery of this stock, an international rebuilding program has not yet been adopted.

37. International rebuilding program implemented in 1999.

38. International rebuilding program implemented in 2000.

39. Although a rebuilding program was developed, it could not be implemented under a court-approved settlement that prevented a commercial quota reduction until a peer review was completed. The independent peer review was conducted in accordance with the court settlement and found that the scientific conclusions and management recommendations contained in the last stock assessment were not based on scientifically reasonable uses of the appropriate fisheries stock assessment techniques. A new stock assessment is expected in early 2002, and the rebuilding program will be adjusted in accord with the new assessment.

40. A new stock assessment is expected in early 2002.

41. An international stock assessment is expected in 2003.

Table 5. Summary of Stock Status for Species Contained in Federal Fishery Management Plans, But Not Contained in the Management Unit

Fishery Management Plan	Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
South Atlantic Golden Crab	Red Crab	SAFMC	Undefined	Undefined	Unknown
South Atlantic Golden Crab	Jonah Crab	SAFMC	Undefined	Undefined	Unknown
Gulf of Mexico Shrimp	ROCK SHRIMP	GMFMC	Undefined	Undefined	Unknown
Gulf of Mexico Shrimp	SEABOB SHRIMP	GMFMC	Undefined	Undefined	Unknown

Table 6. Summary of Stock Status for Species not Contained in Federal Fishery Management Plans

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
American Eel	ASMFC	Unknown ¹	Unknown ¹	Unknown
AMERICAN LOBSTER	ASMFC	Yes	Undefined	Unknown
ATLANTIC CROAKER	ASMFC	Unknown ²	Unknown ²	Unknown
ATLANTIC MENHADEN	ASMFC	No	No	Unknown
Atlantic Sturgeon	ASMFC	No ³	Yes ⁴	N/A
HORSESHOE CRAB	ASMFC	Unknown ¹	Unknown ¹	Unknown
NORTHERN SHRIMP	ASMFC	Yes	Undefined ⁵	Unknown
SPOT	ASMFC	Unknown ⁶	Unknown ⁶	Unknown
SPOTTED SEATROUT	ASMFC	Unknown ⁶	Unknown ⁶	Unknown
STRIPED BASS	ASMFC	No ⁴	No ⁴	Unknown
TAUTOG	ASMFC	Yes	Undefined	Unknown
WEAKFISH	ASMFC	Undefined	No	No
Queen Triggerfish	GMFMC	Unknown ¹	Unknown ¹	Unknown
GULF MENHADEN	GSMFC	No ⁴	No ⁴	Unknown
BLACK DRUM	GSMFC	Unknown ⁶	Unknown ⁶	Unknown

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
PACIFIC BONITO	PFMC	Unknown ¹	Unknown ¹	Unknown
California Barracuda	PFMC	Unknown ¹	Unknown ¹	Unknown
WHITE SEABASS	PFMC	Unknown ¹	Unknown ¹	Unknown
WHITE CROAKER	PFMC	Unknown ¹	Unknown ¹	Unknown
YELLOWTAIL	PFMC	Unknown ¹	Unknown ¹	Unknown
Giant Squid	PFMC	Unknown ¹	Unknown ¹	Unknown
Mackerel Scad	WPFMC	Unknown ¹	Unknown ¹	Unknown
Bigeye Scad	WPFMC	Unknown ¹	Unknown ¹	Unknown
PACIFIC HALIBUT	PFMC and NPFMC ⁷	No	Undefined	Unknown
Rattails	NPFMC	Unknown ¹	Unknown ¹	Unknown
Sea Snails	NPFMC	Unknown ⁶	Unknown ⁶	Unknown
BONITO (ATLANTIC)	HMS	Unknown ¹	Unknown ¹	Unknown

1. There is no definition for determining the overfished status in Our Living Oceans.
2. Prior listings were based on status determinations contained in Our Living Oceans (OLO). These status determinations were likely based on regional stock assessments that were conducted prior to 1995, not a coastwide assessment of the stock. Since no coastwide assessment has been conducted and determinations contained in OLO are outdated, it would be more accurate to list the status as Unknown, until more information becomes available.
3. Fishing for Atlantic Sturgeon is prohibited, therefore, there is no fishing mortality.
4. Used assessment from Our Living Oceans.
5. Previous reports listed the status of the Northern Shrimp as not overfished, but approaching an overfished condition, based on results from the NEFSC autumn bottom trawl survey and the ASMFC summer shrimp survey. For the purposes of this report, determinations regarding whether or not a stock is overfished or approaching an overfished condition are based on stock level size (biomass).

Because the Northern Shrimp FMP does not contain reference points to measure the status of the biomass relative to the level at which the stock becomes overfished, determinations regarding the approaching or overfished status cannot be made, and previous listings were in error. Until such reference points can be developed, no assessments can be made relative to the stock level size.

6. The definition for determining the overfished status is based on the definition in Our Living Oceans.

Table 7. Species Contained in Federal Fishery Management Plans Under Development

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
Deep Sea Red Crab	NEFMC	Unknown ¹	Unknown ¹	Unknown
WINTER SKATE	NEFMC	No	No	Unknown
BARNDOR SKATE	NEFMC	No	Yes	N/A
THORNY SKATE	NEFMC	Yes	Yes	N/A
SMOOTH SKATE	NEFMC	No	No	No
LITTLE SKATE	NEFMC	No	No	No
CLEARNOSE SKATE	NEFMC	No	No	No
ROSETTE SKATE	NEFMC	No	No	No
CALICO SCALLOPS	SAFMC	Unknown ¹	Unknown ¹	Unknown
Sargassum	SAFMC	Unknown ²	Unknown ²	Unknown
WAHOO	SAFMC/GMFMC/CFMC	Unknown ²	Unknown ²	Unknown
BLUEFIN TUNA (NORTH PACIFIC) ³	PFMC	Unknown ²	Unknown ²	Unknown

1. The definition for determining the overfished status is based on the definition in Our Living Oceans.
2. There is no definition for determining the overfished status in Our Living Oceans.
3. In addition to Bluefin Tuna, this FMP under development will cover West Coast based fisheries for several tuna, billfish, and shark species already listed in the Western Pacific Pelagics FMP (Table 3).

APPENDIX 1. REPORT FORMAT AND DESCRIPTION OF METHODOLOGY FOR DETERMINING OVERFISHING STATUS

The format of the report is the same as the 2000 report. Information on necessary management actions to be taken and progress being made in rebuilding overfished stocks is provided. Determinations are presented separately for those stocks where overfishing is occurring, i.e., the fishing mortality rate is above an identified threshold; and for those stocks that are overfished, i.e., the biomass of the stock is below an identified threshold. Data concerning each of these categories are not additive and could result in double counting if added together to determine the combined status of the stocks. The categories not overfished and approaching an overfished condition are mutually exclusive. Any stock listed as approaching an overfished condition (because it is estimated that it will become overfished within 2 years) is not included in the not overfished category, even though it is currently not overfished. This is to eliminate double-counting of the stocks analyzed in this report. Overfishing and overfished definitions are listed in Appendix 2.

Determining Status of Stocks

If the fishing mortality rate is above the threshold, then overfishing is occurring. If the stock size is below the minimum threshold, then the stock is overfished. The overfishing and overfished categories are separate determinations and should not be added together, because this would result in double-counting for many of the stocks.

In addition, if a stock size is expected to fall below the threshold level necessary to produce MSY within 2 years, then it is listed as approaching an overfished condition. Determinations are based on the criterion in the FMP for the overfished (biomass) component and trends in various indicators relative to that criterion. For some stocks, pre-SFA definitions, including proxy MSYs and minimum stock size threshold, were used as a basis in determining whether a stock was approaching an overfished condition.

For salmon stocks contained in the WA, OR, CA FMP, determining whether a stock is approaching a condition of being overfished is based on a different, albeit analogous, set of criteria. A conservation alert is triggered during the annual preseason process if a natural stock or stock complex is projected to fall short of its conservation objective (MSY, MSY proxy, MSP, or floor, in the case of some harvest rate objectives) for one year. The criteria used by the PFMC is more conservative than recommended under the National Standard Guidelines, and a one-year departure from the MSY/MSP spawner objectives does not necessarily mean that the stock will be unable to produce MSY in the long-term.

Stock assessments may be based on fully approved overfishing definitions that specify both a maximum fishing mortality rate threshold and a minimum stock size threshold, or assessments may be based on partially approved or fully disapproved definitions. If a partially approved definition exists in the FMP, the determinations were made using the approved portion of the definition and the pre-SFA definition in the FMP for the disapproved portion of the definition, if available. Many of these pre-SFA definitions have been contained in their respective FMPs for years, were approved prior to the SFA amendments, and remain the operative definition, if the proposed SFA definition was disapproved. In some cases, a pre-SFA definition is not available to base a determination on, causing undefined to be noted in the appropriate column. For fully disapproved definitions, this year's report again uses the pre-SFA definition. If neither post- nor pre-SFA overfishing and overfished definitions are contained in the FMP, the stock will be listed as undefined in both of these categories.

Pre-SFA and Post-SFA Definitions

This report divides the overfishing and overfished columns into pre- and post-SFA overfishing definitions to make the basis for the determinations as clear as possible. The approaching an overfished condition column does not make a distinction between pre- and post-SFA. Since a stock is considered to be approaching an overfished condition if it is likely to become overfished in two years, it is generally based on stock level indicators. The type of overfishing definition (pre- or post-SFA) used to determine if a stock is approaching an overfished condition is based on the criteria associated with the biomass (overfished) component of the definition.

Final Conclusions

Because the overfishing definitions used to assess stocks contained in this report have changed over the years, it is difficult to make year-to-year comparisons of stocks. Removal of the third column (overfished) that was used in reports prior to 2000 also makes direct comparisons difficult. Nevertheless, the determinations in the fishing mortality rate column in previous year's reports can be compared with the determinations in the overfishing column this year. Likewise, the determinations in previous year's biomass column can be compared to the overfished column in the 2001 report.

Rebuilding Progress

Information is provided about those stocks for which rebuilding programs are required. By identifying the type of management action required when overfishing is occurring or when a stock is overfished, it is possible to correctly note which stocks require reduction of the fishing mortality rate and which stocks actually require rebuilding plans. The progress of each rebuilding plan is indicated in the last column of the table, giving information about the number of years the program has been in place, and the total number of years the program is expected to exist. Some plans were approved prior to the SFA amendments and are footnoted accordingly, and those for which there is no defined time line are also noted. For purposes of this report, December 2001 is used as the cutoff date for determining the year in which the rebuilding plan is currently in.

Any stock that has previously been listed, or is currently listed, as overfished is required to have a rebuilding program until the stock has been rebuilt to levels that are consistent with supporting MSY on a sustainable basis. Stocks that are overfished that do not have a rebuilding program are listed as "rebuild program" in the Management Action Required column, which indicates that a rebuilding program is required for this stock. Overfished stocks that are listed as "continue rebuilding" in the Management Action Required column are currently rebuilding under an approved rebuilding program. Stocks that are listed as not overfished - rebuilding were previously below the minimum stock size threshold, are now above that level, but have not been rebuilt to the target levels specified in their rebuilding plans. These stocks are currently rebuilding under an approved rebuilding plan, and are listed as "continue rebuilding" in the Management Action Required column. Three exceptions are Gulf of Maine Haddock, Cape Cod Yellowtail Flounder, and Georges Bank Winter Flounder, which are rebuilding under rebuilding programs for other groundfish stocks. The status of these stocks is likely to improve as a result of these measures, but because they were previously listed as overfished, a formal rebuilding program is still required for them. It is important to note that the status of rebuilding stocks should not be considered as healthy until they have been fully rebuilt.

METHODOLOGY FOR STATUS DETERMINATIONS

Basis for Determining Status of Overfishing

As required by section 304(e)(1) of the Magnuson-Stevens Act, the status determination for those stocks managed under an FMP or international agreement was based on the criteria (i.e., the overfishing definition) specified in the FMP or agreement, whenever possible (see Appendices 2-5). Prior to requirements under the SFA, most existing overfishing definitions were based wholly or in part on either a fishing mortality rate or stock biomass, but not both. The SFA requires that status determination criteria must specify both a maximum fishing mortality threshold or reasonable proxy thereof, and a minimum stock size threshold or reasonable proxy thereof. Thus, stocks must be assessed according to whether the maximum fishing mortality threshold is being exceeded and whether the stock is below the minimum stock size threshold. Overfishing is determined to be occurring for those stocks for which the fishing mortality rate exceeds the fishing mortality rate or level required to produce the maximum sustainable yield (MSY) on a continuing basis. Overfished stocks are those whose biomass is below the minimum stock size required to produce MSY on a continuing basis.

In conformance with SFA requirements, this report identifies the status determination of stocks based on both the fishing mortality rate and stock biomass, wherever possible. The National Standard Guidelines require NMFS to determine whether the fishing mortality rate threshold is being exceeded or the biomass is below the established threshold for each stock. If either overfishing is occurring or a stock is being overfished, management action is required. For stocks in which overfishing is occurring, fishing mortality must be reduced so that stocks can produce MSY on a continuing basis; for stocks that are overfished, rebuilding plans must be implemented so that stocks can be rebuilt to the level necessary to produce MSY on a continuing basis. The following is a description of the basis for status determinations under a variety of scenarios associated with fully approved, partially approved, or fully disapproved definitions.

Fully Approved Definitions under the SFA: For those stocks contained in FMPs for which overfishing definitions were fully approved, status determinations were based on assessments using both the fishing mortality rate and biomass definitions, wherever possible. If the fishing mortality rate exceeded the established fishing mortality rate threshold, the stock was listed as “overfishing is occurring.” If the biomass was below the established biomass threshold, the stock was listed as “overfished.” Stocks listed as unknown are those for which there is an approved overfishing definition, but for which no determination can be made because of insufficient information.

Partially Approved Definitions under the SFA: For those stocks contained in FMPs for which overfishing definitions were partially approved (i.e., for which only one of the two necessary criteria was approved), status determinations were based on the definitions that are currently in the FMP. For some stocks, determinations were made using a combination of the SFA approved definition, such as the fishing mortality rate, and the pre-SFA definition, such as stock level size. For other stocks, the only overfishing definition contained in the FMP is one component (fishing mortality or biomass) that meets SFA requirements. For these stocks, determinations were made using the SFA approved criterion, and the other component was listed as undefined. Stocks listed as undefined are those for which there is no status criterion by which to make a determination.

Definitions under the SFA that are Fully Disapproved or Still Under Review: For those stocks contained in FMPs for which the overfishing definitions were fully disapproved or are still under review, status determinations were based on previously existing definitions, and were assessed under pre-SFA guidelines. Similar to partially approved definitions, the overfishing or overfished determination was based solely on the status criterion that is available. When a status criterion is not available the stock is listed as undefined.

Stocks contained in Federal FMPs for which Definitions do not Apply: Some stocks contained in federal FMPs have never had an overfishing or overfished definition. Such stocks are usually minor and are contained in federal FMPs in which overfishing definitions exist, but the definitions do not apply to these stocks. The status of such stocks are listed as undefined.

Fully or Partially Approved Definitions contained in Non-Federal FMPs managed by Interstate Fishery Management Commissions: While there are no SFA requirements for stocks contained in non-federal FMPs to have both a fishing mortality rate and biomass definition, some may contain one or both of these components. For stocks in which both components were approved, the status determination is based on these definitions. For stocks in which there is only one component to make a determination (either overfishing or overfished criteria), the status determination is based on the approved criteria, and the other component is listed as undefined. Pacific Halibut, which is managed through an international treaty between the United States and Canada is listed according to these same guidelines. Management measures are coordinated jointly by the PFMC and NPFMC in U.S. waters, and it is likely that this regime will continue.

Stocks not contained in FMPs, stocks contained in FMPs under development, and stocks contained in Non-Federal FMPs managed by Interstate Fishery Management Commissions for which there are no Definitions: For these cases, if overfishing definitions are available for either component, they will be used to make the status determinations. If definitions are not available the stock will be listed according to the status determination in OLO. If there is no basis for making a determination listed in OLO, the stock is listed as unknown.

The 1999 edition of Our Living Oceans (OLO) was used to determine the status relative to overfishing for stocks (1) for which there are no FMPs or international agreements and there are no overfishing definitions, but that are under the Councils' geographic area of authority or under the Secretary's management authority for Atlantic highly migratory species; (2) that are contained in FMPs under development and do not have overfishing definitions; and (3) that are contained in non-federal FMPs managed by an Interstate Fishery Management Commission and there are no overfishing definitions. In OLO, the terms overfished and overfishing are not used, but similar concepts are. Long Term Potential Yield (LTPY), as used in OLO, is analogous to MSY. Thus, the conclusions reached in OLO approximate the conclusions that would be drawn if an assessment had been made using the SFA's definition of overfished. Stocks that are listed in OLO as below stock levels necessary to produce LTPY are considered overfished, and those listed as near and above stock levels necessary to produce LTPY are considered not overfished. In determining whether overfishing is occurring, the existing fishing effort or fishery utilization level was compared to the level necessary to achieve LTPY. Stocks that are listed in OLO as over are stocks for which overfishing is occurring, and those that are listed as under or fully are stocks for which no overfishing is occurring. Because OLO does not make a determination of whether the stock is approaching an overfished condition, that determination could not be made for those stocks assessed using OLO. For stocks not contained in FMPs that have no overfishing definition or for which there is no determination of stock status in OLO, the overfished status is listed as unknown.

Many of the stocks listed as overfished in this report have experienced excessive levels of fishing effort in recent years, and appropriate measures have been taken to reduce fishing mortality on these stocks. Other stocks listed as overfished may be due to prevailing environmental conditions, habitat degradation, or natural fluctuations in the stocks. These factors may have reduced the stock biomass to levels below that which is necessary to produce MSY on a continuing basis. Sometimes, management measures have little impact on the status of the stocks. For example, many of the Pacific salmon stocks under the PFMC jurisdiction are not significantly impacted in fisheries within the Council's jurisdiction. Other stocks are listed as threatened or endangered under the Endangered Species Act and management for these stocks is conducted under the ESA. Fishing effort has been appropriately reduced or eliminated, but the stocks remain overfished due to factors beyond the Council's control. While the Councils, NMFS, and any management regime will make every effort to implement appropriate management measures, rebuilding programs may not necessarily restore some stocks to a healthy level, until these other factors are effectively dealt with.

Information regarding the status of stocks is continually evolving and additional information has become available for some stocks since the most recent publication of OLO. For those stocks for which there is updated information in a citable form, that information was used to determine the status of that stock in this report. It is recognized that this approach does not include all "preliminary" information for each stock. However, this approach has been taken to minimize potential confusion as conclusions about stock conditions change with changes in "preliminary" information.

APPENDIX 2. OVERFISHING DEFINITIONS CONTAINED IN FEDERAL FISHERY MANAGEMENT PLANS

The following definitions are as contained in the Fishery Management Plans, with minor editing changes to maintain consistency of terms. See Appendix 6 for definitions of acronyms used in this appendix.

Atlantic Sea Scallop – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Georges Bank - Overfishing occurs when F exceeds F_{max} (proxy for F_{msy}), when the stock biomass is equal to or greater than B_{msy} or when F is greater than zero if stock is below $\frac{1}{4}B_{msy}$. The best available estimate of F_{max} is 0.24.

A stock is overfished when stock biomass is below $\frac{1}{4}B_{msy}$. Proxy for B_{msy} is defined as 8.16 kg/tow (SAW-32, 2001).

Middle Atlantic - Overfishing occurs when F exceeds F_{max} (proxy for F_{msy}), when the stock biomass is equal to or greater than B_{msy} or when F is greater than zero if stock is below $\frac{1}{4}B_{msy}$. The best available estimate of F_{max} is 0.24.

A stock is overfished when stock biomass is below $\frac{1}{4}B_{msy}$. Proxy for B_{msy} is defined as 3.90 kg/tow (SAW-32, 2001).

Atlantic Salmon - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing is currently not defined (fishing mortality is set equal to zero).

A stock is overfished when the stock biomass falls below B_{MSY} (54,000 spawning salmon is set as a proxy for B_{MSY}). The estimate of B_{MSY} has not been revised since the 2000 report.

Northeast Multispecies

Cod - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

(Gulf of Maine) - Overfishing occurs when F exceeds F_{msy} . The best available estimate of F_{msy} is 0.23.

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{msy}$. The best available estimate of B_{msy} is 90,300 mt (SAW-33, 2001).

(Georges Bank) - Overfishing occurs when F exceeds F_{msy} . The best available estimate of F_{msy} is 0.32.

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{msy}$. The best available estimate of B_{msy} is 27,000 mt.

Haddock – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

(Gulf of Maine) - Overfishing occurs when the relative exploitation index (catch/autumn biomass index) exceeds 0.29 (F_{msy} proxy).

A stock is overfished when the total stock biomass is less than the survey proxy for $\frac{1}{2}B_{msy}$ (4.13 kg/tow).

(Georges Bank)- Overfishing occurs when F exceeds $F_{0.1}$ (0.26).

A stock is overfished when the spawning stock biomass is less than $\frac{1}{2}B_{target}$ (53,000).

American Plaice – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{0.1}$. The best available (current) estimate of $F_{0.1}$ is 0.19.

A stock is overfished when the spawning stock biomass is less than $\frac{1}{4}B_{msy}$ at $F_{0.1}$. The best available estimate of $B_{threshold}$ is 6,050 mt.

Redfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{20\%}$. The best available estimate of $F_{20\%}$ is 0.12.

A stock is overfished when the spawning stock biomass is less than $\frac{1}{2}B_{msy}$. B_{msy} cannot be estimated, however a ratio of current biomass to B_{msy} was used to determine the stock status relative to the overfishing definition (SAW-33, 2001).

Witch Flounder – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy} . The best available (current) estimate of F_{msy} (biomass weighted) is 0.106.

A stock is overfished when the total stock biomass is less than $42\%B_{msy}$. B_{msy} is estimated at 25,000 mt (SAW-19, 1999).

Yellowtail Flounder – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

(Georges Bank) – Overfishing occurs when F exceeds F_{msy} . The best available (current) estimate of F_{msy} is 0.33 (biomass weighted, ages 1+).

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{msy}$. The best available (current) estimate of $\frac{1}{4}B_{msy}$ is (10,870 mt). (TRAC, 2001).

(Southern New England) - Overfishing occurs when F exceeds F_{msy} (0.23).

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{msy}$ (12,800 mt).

(Cape Cod) – Overfishing occurs when F exceeds F_{msy} . The best available estimate of F_{msy} is 0.40 (biomass weighted); and 0.54 (fully recruited).

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{msy}$. The best available estimate of B_{msy} is 6,100 mt. (SAW-28,1999).

(Middle Atlantic) - Overfishing occurs when F exceeds F_{msy} , which is defined as MSY/B_{target} . The best available estimate of F_{msy} proxy is 0.36.

A stock is overfished when the total stock biomass is less than the survey proxy for $\frac{1}{2}B_{msy}$. The best available estimate of B_{msy} proxy is 4.58 kg/tow .

White Hake – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy} . The best available estimate of F_{msy} is 0.29.

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{msy}$. The best available estimate of B_{msy} is 14,700 mt (SAW-33, 2001).

Pollock – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{20\%}$. The best available estimate of $F_{20\%}$ (F_{msy} proxy) is 0.65.

A stock is overfished when the spawning stock biomass is less than $\frac{1}{4}B_{msy}$. The best available estimate of B_{msy} is 26,000 mt.

Ocean Pout – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy} proxy. The best available estimate of the F_{msy} proxy is 0.31 catch / survey index.

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{msy}$ proxy. The best available estimate of the B_{msy} proxy is 2.4 kg/tow.

Atlantic Halibut - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{0.1}$. Maximum rebuilding time is undefined for this stock. No fishing mortality is permitted ($F = 0$) until the stock is rebuilt (provisional control law). The best available estimate of $F_{0.1}$ is 0.06.

A stock is overfished when the total stock biomass is less than the biomass threshold of $\frac{1}{2}B_{MSY}$. The best available estimate of B_{MSY} is 5,400 mt.

Windowpane Flounder – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

(Gulf of Maine / Georges Bank) - Overfishing occurs when F exceeds F_{msy} proxy of a relative exploitation index. The best available estimate of the F_{msy} proxy is 1.11 catch / survey index.

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{msy}$. The best available estimate of the B_{msy} proxy is 0.47 kg/tow.

(Southern New England / Middle Atlantic) – Overfishing occurs when F exceeds F_{msy} proxy of a relative exploitation index. The best available estimate of the F_{msy} proxy is 2.24 catch / survey index.

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{msy}$. The best available estimate of the B_{msy} proxy is 0.10 kg/tow.

Winter Flounder (Gulf of Maine) - The overfishing definition was disapproved under SFA guidelines. The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Overfishing occurs when the fishing mortality rate exceeds the rate associated with 20% MSP by NEFMC and 40% by ASMFC.

Winter Flounder - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

(Georges Bank) - Overfishing occurs when F exceeds F_{MSY} . Best available estimates of F_{MSY} proxy is 1.12.

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{MSY}$. Best available estimates of B_{MSY} proxy is 2.730 (SAW-28, 1999).

(Southern New England) - Overfishing occurs when F exceeds F_{MSY} . Best available estimates of F_{MSY} is 0.37 (biomass weighted).

A stock is overfished when the total stock biomass is less than $\frac{1}{4}B_{MSY}$. Best available estimates of B_{MSY} is 27,800 mt.

Silver Hake - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

(Gulf of Maine / Northern Georges Bank, Southern Georges Bank / Middle Atlantic) - Overfishing occurs when F exceeds F_{MSY} , the proxy for which is $F_{0.1}$. The best available estimates of $F_{0.1}$ are 0.41 for Gulf of Maine / Northern Georges Bank Silver Hake, and 0.39 for Southern Georges Bank / Middle Atlantic Silver Hake.

B_{MSY} proxies are estimated at 3.31 (Northern), and 0.89 (Southern) (SAW-32, 2000).

Offshore Hake - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the 3-year moving average weight per individual in the autumn survey falls below the 25th percentile of the average weight per individual from the autumn survey time series 1963-1997 (0.236).

A stock is overfished when the 3-year moving average of the abundance of immature fish less than 30 cm falls below the median value of the 1963-1997 autumn survey abundance of fish less than 30 cm (0.33 #/tow).

Red Hake (Gulf of Maine / Northern Georges Bank) - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{MSY} . The best available estimate of F_{MSY} is 0.65.

A stock is overfished when the biomass is less than $\frac{1}{2}B_{MSY}$ proxy. The best available estimate of B_{MSY} proxy is 1.6 kg/tow.

Red Hake (Southern Georges Bank / Middle Atlantic) - The following overfishing definition has been partially approved under SFA guidelines and was used to make the assessment contained in this report. The definition contains only a fishing mortality rate (F) component.

Overfishing is defined by a combination of the mean individual weight less than 0.12 kg and the recruitment index of fish <25 cm less than 4.72 kg/tow.

Overfished is undefined. The 2000 Report incorrectly indicated an overfished component to this stock's overfishing definition.

Atlantic Herring - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the fishing mortality rate exceeds F_{msy} . The best available estimate of F_{msy} is 0.30.

A stock is overfished when the total stock biomass is less than $\frac{1}{2}B_{msy}$. The best available estimate of B_{msy} is 1.07 million mt.

Monkfish - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Northern stock – Overfishing occurs when F exceeds $F_{threshold}$, which is the average F during 1970-1979. Current estimates place the value at 0.051.

A stock is overfished when the survey index is less than $B_{threshold}$, which is the 33rd percentile of the 1963-1994 NEFSC autumn trawl survey catch. Current estimates are 1.45 kg/tow.

Southern stock - Overfishing occurs when F exceeds $F_{threshold}$, which is the average F during 1970-1979 (0.21).

A stock is overfished when the survey index is less than $B_{threshold}$, which is the 33rd percentile of the 1963-1994 NEFSC autumn trawl survey catch. Best available estimate of $B_{threshold}$ is 0.70 kg/tow (SAW-31, 2000).

Spiny Dogfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component. The biomass target was disapproved. Overfishing occurs when F exceeds $F_{threshold}$, the mortality rate that stabilizes the population at SSB_{max} when recruitment is at 27.5 inches (70cm). The current estimate of $F_{threshold}$ is 0.11.

A stock is overfished when the biomass is less than $\frac{1}{2}SSB_{max}$. The current estimate of $B_{threshold}$ is 100,000 mt female biomass.

Summer Flounder, Scup, and Black Sea Bass

Summer Flounder - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold of F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.26.

A stock is overfished when total biomass falls below the minimum biomass threshold of $\frac{1}{2}B_{msy}$. The best available estimate of B_{msy} is 106,000 mt (SAW-31, 2000).

Scup - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.26.

A stock is overfished when the minimum biomass index for rebuilding is less than $B_{threshold}$, which is the maximum value of a 3-year moving average of the Northeast Fisheries Science Center's spring survey catch per tow of spawning stock biomass (SSB). The best available estimate of $B_{threshold}$ is 2.77 kg/tow, the average of 1977-1979.

Black Sea Bass - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.32.

A stock is overfished when the minimum biomass index for rebuilding is less than $B_{threshold}$, which is the maximum value of a 3-year moving average of the Northeast Fisheries Science Center's spring survey exploitable biomass index (fish >22 cm). The best available estimate of $B_{threshold}$ is 0.9 kg/tow.

Bluefish (except Gulf of Mexico) - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{MSY} . The best available estimate of F_{MSY} is 0.4.

A stock is overfished when the minimum biomass is less than $\frac{1}{2}B_{MSY}$. The best available estimate of B_{MSY} is 107,600 mt.

Surfclams and Ocean Quahogs

Surfclam - The overfishing definition was disapproved under SFA guidelines. The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

The overfishing definition for surfclams is the fishing mortality rate of $F_{20\%}$ (20% of MSP). The best available estimate of $F_{20\%}$ is 0.18 (SAW-30, 2000).

Ocean Quahog – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the overfishing target is exceeded, which is $F_{\text{target}} = F_{0.1}$ for the exploited region and $\frac{1}{2}$ the virgin biomass. The best available estimate of $F_{0.1}$ is 0.22.

A stock is overfished when the minimum biomass is less than the biomass threshold of $\frac{1}{2}B_{\text{msy}}$ or $\frac{1}{4}$ of the virgin biomass. The best available estimate of B_{msy} is 1 million mt (SAW-31, 2000).

Atlantic Mackerel, Squid, and Butterfish

Illex Squid - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{msy} . The best available estimate of F_{msy} is 1.22.

A stock is overfished when the minimum biomass is less than $\frac{1}{2}B_{\text{msy}}$. The best available estimate of B_{msy} is 39,300 mt.

Loligo Squid - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{max} (F_{max} is a proxy for F_{msy}). Current estimates for $F_{\text{max}} = 0.7$ and 1.2 for winter and summer cohorts, respectively.

A stock is overfished when the minimum biomass is less than the biomass threshold of $\frac{1}{2}B_{\text{msy}}$. The best available estimate of B_{msy} is 80,000 mt (SAW-19, 1999).

Atlantic Mackerel – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{msy} (0.45). To avoid low levels of

recruitment, the threshold F decreases linearly from 0.45 at 445,000 mt SSB to zero at 225,000 mt SSB ($\frac{1}{4}B_{msy}$).

A stock is overfished when the SSB is less than 890,000 mt. The estimates of the component parts of this overfishing definition were not re-estimated from past levels and therefore remain the best available estimates (SAW-30, 2000).

Butterfish (Atlantic) – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the catch associated with a threshold F of F_{msy} is exceeded. F_{msy} is currently estimated at 1.01, and has not been re-estimated since the 2000 Report.

A stock is overfished when the minimum biomass is less than the biomass threshold of $\frac{1}{2}B_{msy}$. Estimates of B_{msy} are unknown.

Golden Tilefish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the catch associated with a threshold F of F_{msy} is exceeded. The current estimate of F_{msy} is 0.22.

A stock is overfished when the total stock biomass falls below the minimum biomass threshold ($B_{threshold}$) of $\frac{1}{2}B_{msy}$. The current estimate of $B_{threshold}$ is 4,200 mt.

Golden Crab of the South Atlantic - The following overfishing definition was partially approved under SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Overfishing is defined as any rate of fishing mortality in excess of F_{msy} for golden crab in the South Atlantic Council's management area.

Shrimp Fishery of the South Atlantic - The following overfishing definitions were partially approved under SFA guidelines and were used to make the assessments contained in this report. For the fishing mortality rate (F) component, the pre-SFA definition was used to make the assessments.

White Shrimp – The South Atlantic white shrimp resource is overfished and overfishing occurs when the overwintering white shrimp population within a state's water declines by 80% or more following severe winter weather resulting in prolonged cold water temperatures.

Rock Shrimp – The South Atlantic rock shrimp resource is overfished and overfishing occurs when the annual landings exceed the value which is two standard deviations above mean landings for the period 1986-1994.

Brown Shrimp and Pink Shrimp – The South Atlantic brown and pink resources are overfished and overfishing occurs when annual landings fall below two standard deviations below mean landings for the period 1957-1993 for 3 consecutive years.

South Atlantic Snapper-Grouper - For the following overfishing definitions, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessments contained in this report. The biomass (B) component was approved under SFA guidelines for **Black Sea Bass** and **Red Porgy**. For all other stocks, Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Goliath Grouper (Jewfish), Nassau Grouper - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 40% Static SPR.

Overfished is defined as SPR less than 40%. Based on qualitative information, it is believed that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Vermilion Snapper, Gag, Red Snapper, Speckled Hind, Snowy Grouper, Warsaw Grouper, Golden Tilefish, Yellowtail Snapper, Red Grouper, Black Grouper, Mutton Snapper, Greater Amberjack, Wreckfish, Yellowedge Grouper, Scamp, White Grunt, Gray (Mangrove) Snapper, Lane Snapper, Gray Triggerfish, Queen Triggerfish, Ocean Triggerfish, Yellow Jack, Blue Runner, Crevalle Jack, Bar Jack, Lesser Amberjack, Almaco Jack, Banded Rudderfish, Spadefish, Black Margate, Porkfish, Margate, Tomtate, Smallmouth Grunt, French Grunt, Spanish Grunt, Cottonwick, Sailors Choice, Blue Stripe Grunt, Hogfish, Puddingwife, Black Snapper, Queen Snapper, Schoolmaster, Blackfin Snapper, Cubera Snapper, Mahogany Snapper, Dog Snapper, Silk Snapper, Blueline Tilefish, Sand Tilefish, Bank Sea Bass, Rock Sea Bass, Rock Hind, Graysby, Coney, Red Hind, Misty Grouper, Yellowmouth Grouper, Tiger Grouper, Yellowfin Grouper, Sheepshead, Grass Porgy, Jolthead Porgy, Saucereye Porgy, Whitebone Porgy, Knobbed Porgy, Longspine Porgy, Scup - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR.

Except for black sea bass and red porgy, overfished is defined as SPR less than 30% based on pre-SFA criteria.

Red Porgy - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 35% Static SPR (F=0.43).

Overfished is defined as a stock size less than the minimum stock size threshold (7.34 million pounds).

Black Sea Bass - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR (0.72).

Overfished is defined as a stock size less than the minimum stock size threshold (3.72 million pounds).

Atlantic Coast Red Drum - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR.

Overfished is defined as SPR less than 30%.

Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic Region - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Fire Corals, Hydrocorals, Octocorals, Stony Corals, Black Corals - Overfishing is defined as an annual level of harvest that exceeds optimum yield (OY). OY for coral reefs, stony corals, hydrocorals, black corals, seafans, and live rock is zero, except as may be authorized for scientific and educational purposes. Harvest of allowable octocorals in the EEZ is specified by the South Atlantic Council each year.

Overfished is not defined.

Stone Crab Fishery of the Gulf of Mexico - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. The pre-SFA definition was used to make the assessment of overfished status.

Overfishing occurs and a stock is overfished when the realized egg production per recruit is reduced below 70% of potential production. This will be avoided when there is a minimum claw length (length of prodopus) that assures survival of the crabs to achieve 70% egg production per recruit potential.

Shrimp Fishery of the Gulf of Mexico - For the following overfishing definitions, the biomass (B) component has been approved for **Brown Shrimp**, **Pink Shrimp**, and **White Shrimp** under SFA guidelines, and was used to make the assessments contained in this report. For **Royal Red Shrimp**, there is no biomass component of the overfishing definition to make an assessment. For the fishing mortality rate (F) component, the pre-SFA definitions were used to make the assessments for all of the shrimp.

Brown Shrimp - Overfishing is occurring and the stock is overfished when the parent stock levels are reduced below 125 million shrimp (MSST). This value is slightly lower than the 1983 level of parent stock, which is the lowest observed value since 1960. Parent stock is defined for brown shrimp as the number of age 7+ (months) shrimp during the November through February period.

Pink Shrimp - Overfishing is occurring and the stock is overfished when parent stock levels are reduced below 100 million shrimp (MSST). Parent stock is defined for pink shrimp as the number of 5+ (months) shrimp during the July through June period. Pink shrimp in the western U.S. Gulf were not included in this definition because mixed catches of brown and pink shrimp are not separated and are landed, sold, and statistically treated as brown shrimp.

White Shrimp - Overfishing is occurring and the stock is overfished when parent stock levels are reduced below 330 million shrimp (MSST). Parent stock is defined for pink shrimp as the number of age 7+ (months) shrimp during the May through August period.

Royal Red Shrimp - Overfishing is occurring and the stock is overfished when landings exceed optimum yield (OY). OY is set at MSY (maximum sustainable yield), which was estimated to be 392,000 pounds of tails over 1,290 days fished. Royal red shrimp differ from penaeid shrimp in that they are not estuarine dependent but exist in a relatively constant environment in the deeper waters of the Gulf of Mexico (100 to 300 fathoms). Thus, they conform more closely to a classical Schaefer-type fishery.

Overfished is undefined.

Coral and Coral Reefs of the Gulf of Mexico - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Fire Corals, Hydrocorals, Octocorals, Stony Corals, Black Corals - Overfishing is defined as an annual level of harvest that exceeds optimum yield (OY). OY for coral reefs, stony corals, hydrocorals, black corals, seafans, and live rock is zero, except as may be authorized for scientific and educational purposes. Harvest of allowable octocorals in the EEZ is not to exceed 50,000 colonies per year (Gulf and South Atlantic EEZ combined).

Overfished is undefined.

Spiny Lobster Fishery of the South Atlantic and Gulf of Mexico - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Spiny Lobster - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 20% SPR.

The stock is overfished when the SPR is less than 20%.

Slipper Lobster - No overfishing definition exists in the FMP.

Coastal Migratory Pelagics of the South Atlantic and Gulf of Mexico - The overfishing definitions for the following South Atlantic stocks have been fully approved under SFA guidelines, and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Atlantic group King Mackerel and Atlantic group Spanish Mackerel - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the stock size is less than the minimum stock size threshold (MSST).

For the following stocks, the fishing mortality rate (F) component of the overfishing definition has been approved under SFA guidelines, and was used to make the assessments contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Gulf group King Mackerel, Gulf group Spanish Mackerel, and Dolphin - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Cobia, Cero, Little Tunny, Bluefish (Gulf of Mexico only) - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Reef Fish of the Gulf of Mexico - For all of the following stocks except **Red Snapper**, the fishing mortality rate (F) component of the overfishing definition has been approved under SFA guidelines, and was used to make the assessments contained in this report. For the fishing mortality rate (F) component for **Red Snapper**, the pre-SFA definition was used to make the assessments. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status for all stocks except **Red Grouper**, and was approved under pre-SFA guidelines. For **Red Grouper**, the overfished determination is based on the biomass-based thresholds contained in the 1999 and 2000 stock assessments documents.

Red Snapper - Overfishing occurs when the fishing mortality rates exceeds that associated with a 20% static SPR.

The stock is overfished when the transitional SPR is less than 20%.

Red Grouper - The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

The overfished determination is based on the biomass-based thresholds contained in the 1999 and 2000 stock assessments documents.

Nassau Grouper, Goliath Grouper (Jewfish) - The maximum fishing mortality threshold is the rate corresponding to a 40% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 40% static SPR.

A stock is overfished when the transitional SPR is less than 20%. Qualitative information suggests that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Greater Amberjack, Gag, Vermilion Snapper, Gray Triggerfish, Lesser Amberjack, Almaco Jack, Banded Rudderfish, Queen Snapper, Mutton Snapper, Schoolmaster, Blackfin Snapper, Cubera Snapper, Gray (Mangrove) Snapper, Dog Snapper, Mahogany Snapper, Lane Snapper, Silk Snapper, Yellowtail Snapper, Wenchman, Goldface Tilefish, Blackline Tilefish, Anchor Tilefish, Blueline Tilefish, Tilefish, Rock Hind, Speckled Hind, Yellowedge Grouper, Red Hind, Misty Grouper, Warsaw Grouper, Snowy Grouper, Black Grouper, Yellowmouth Grouper, Scamp, Yellowfin Grouper, Hogfish, Dwarf Sand Perch, Sand Perch - The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Red Drum (Gulf of Mexico) - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Spiny Lobster (Caribbean) - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and transitional Spawning Potential Ratio (SPR) component.

When a spiny lobster stock or stock complex is overfished, overfishing is defined as the harvesting rate that is not consistent with a program that has been established to rebuild the stock or stock complex to the 20% SPR. When a spiny lobster stock or stock complex is not overfished, overfishing is defined as a harvesting rate that, if continued, would lead to a state that would not allow harvest at OY on a continuing basis. The SPR for spiny lobsters is measured in terms of eggs per recruit. For monitoring the SPR, the method described by Gregory *et al.* (1982) will be used to compare female fecundity by length class within fished areas to that in unfished areas.

A spiny lobster stock or stock complex is overfished when it is below the level of 20% of the Spawning Potential Ratio (SPR).

Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and transitional Spawning Potential Ratio (SPR) component.

Goliath Grouper (Jewfish), Nassau Grouper - Overfishing occurs when the fishing mortality rates exceeds that corresponding to a 20% SPR level.

A stock is overfished when the transitional SPR is less than 20%. Qualitative information suggests that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Ocean Surgeonfish, Doctorfish, Blue Tang, Frogfish, Flamefish, Conchfish, Trumpetfish, Scrawled Filefish, Queen Triggerfish, Whitespotted Filefish, Ocean Triggerfish, Black Durgon, Sargassum Triggerfish, Redlip Blenny, Peacock Flounder, Yellow Jack, Blue Runner, Horse-eye Jack, Black Jack, Bar Jack, Greater Amberjack, Almaco Jack, Longsnout Butterflyfish, Four-eye Butterflyfish, Spotfin Butterflyfish, Banded Butterflyfish, Redspotted Hawkfish, Flying Gurnard, Atlantic Spadefish, Neon Goby, Rusty Goby, Royal Gramma, Porkfish, Margate, Tomtate, French Grunt, White Grunt, Bluestriped Grunt, Squirrelfish, Longspine Squirrelfish, Blackbar Soldierfish, Cardinal Soldierfish, Spanish Hogfish, Creole Wrasse, Yellowcheek Wrasse, Yellowhead Wrasse, Clown Wrasse, Puddingwife, Pearly Razorfish, Green Razorfish, Hogfish, Bluehead Wrasse, Black Snapper, Queen Snapper, Mutton Snapper, Schoolmaster, Blackfin Snapper, Gray Snapper, Dog Snapper, Mahogany Snapper, Lane Snapper, Silk Snapper, Yellowtail Snapper, Wenchman, Vermilion Snapper, Blackline Tilefish, Sand Tilefish, Yellow Goatfish, Spotted Goatfish, Chain Moray, Green Moray, Goldentail Moray, Batfish, Goldspotted Eel, Yellowhead Jawfish, Dusky Jawfish, Spotted Trunkfish, Honeycomb Cowfish, Scrawled Cowfish, Trunkfish, Smooth Trunkfish, Cherubfish, Queen Angelfish, Rock Beauty, Gray Angelfish, French Angelfish, Sergeant Major, Blue Chromis, Sunshinefish, Yellowtail Damselfish, Dusky Damselfish, Beaugregory, Bicolor Damselfish, Threespot Damselfish, Bigeye, Glasseye Snapper, Midnight Parrotfish, Blue Parrotfish, Striped Parrotfish, Rainbow Parrotfish, Princess Parrotfish, Queen Parrotfish, Redband Parrotfish, Redtail Parrotfish, Redfin Parrotfish, Stoplight Parrotfish, High-hat, Jackknife-fish, Spotted Drum, Scorpionfishes, Rock Hind, Graysby, Yellowedge Grouper, Coney, Red Hind, Red Grouper, Misty Grouper, Butter Hamlet, Swissguard Basslet, Yellowfin Grouper, Tiger Grouper, Creole-fish, Greater Soapfish, Orangeback Bass, Lantern Bass, Tobaccofish, Harlequin Bass, Chalk Bass, Caribbean Tonguefish, Sea Bream, Jolthead Porgy, Sheepshead Porgy, Pluma, Seahorses, Pipefishes, Sand Diver, Sharpnose Puffer, Porcupinefish -
Overfishing occurs when the fishing mortality rates exceeds that corresponding to a 20% SPR level.

A stock is overfished when the transitional SPR is less than 20%.

Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and biomass (B) component.

Queen Conch - When a queen conch stock is overfished, overfishing is defined as harvesting at a rate that is not consistent with a program that has been established to rebuild the stock to the 20% SSBR level. When a queen conch stock is not overfished, overfishing is defined as a harvesting rate that, if continued, would lead to a state of the stock or stock complex that would not at least allow a harvest of OY on a continuing basis.

A queen conch stock is overfished when it is below the level of 20% of the spawning stock biomass per recruit (SSBR) that would occur in the absence of fishing.

Atlantic Triton's Trumpet, Cameo Helmet, Caribbean Helmet, Caribbean Vase, Flame Helmet, Green Star Shell, Hawkwing Conch, Milk Conch, Roostertail Conch, True Tulip, West Indian

Fighting Conch, Whelk (West Indian Top Shell) - No overfishing definition exists in the FMP.

Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin Islands -The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Hydrocorals, Soft Corals, Gorgonian Corals, Hard Corals, Black Corals, False Corals, Sponges, Hydroids, Anemones, Colonial Anemones, Annelid Worms, other Gastropods, Bivalves, Cephalopods, Crustaceans, Bryozoans, Feather Stars, Sea Stars, Brittle and Basket Stars, Sea Urchins, Sea Cucumbers, Tunicates - Overfishing is defined as an annual level of harvest that exceeds OY. OY for stony corals, octocorals, live-rock and seagrasses is set at zero, except as may be authorized for scientific research, education and restoration purposes.

Green Algae, Red Algae, Seagrasses - No overfishing definition exists in the FMP.

Washington, Oregon, and California Salmon - The following overfishing definition was approved under post-SFA guidelines and was used to make the assessments contained in this report. This definition was used to make determinations for both the fishing mortality rate and stock level.

CALIFORNIA CENTRAL VALLEY CHINOOK (includes Sacramento River Fall, Sacramento River Spring, and Sacramento River Winter), NORTHERN CALIFORNIA COAST CHINOOK (includes Eel, Mattole, Mad, and Smith Rivers, Klamath River Fall, and Klamath River Spring), OREGON COAST CHINOOK (includes Southern Oregon, and Central and Northern Oregon), COLUMBIA RIVER BASIN CHINOOK (includes North Lewis River Fall, Lower River Hatchery Fall, Lower River Hatchery Spring, Upper Willamette Spring, Mid-River Bright Hatchery (Fall), Spring Creek Hatchery (Fall), Klickitat, Warm Springs, John Day, and Yakima Rivers (Spring), Snake River Fall, Snake River Spring / Summer, Upper River Bright (Fall), Upper River Summer, and Upper River Spring), WASHINGTON COAST CHINOOK (includes Willapa Bay Fall (natural), Willapa Bay Fall (hatchery), Grays Harbor Fall, Grays Harbor Spring, Quinault Fall, Queets Fall, Queets Spring / Summer, Hoh Fall, Hoh Spring / Summer, Quillayute Fall, Quillayute Spring / Summer, and Hoko Summer / Fall), PUGET SOUND CHINOOK [includes Eastern Strait of Juan de Fuca Summer / Fall, Skokomish Summer / Fall (Hood Canal), Nooksack Spring (early), Skagit Summer / Fall, Skagit Spring, Stillaguamish Summer / Fall, Snohomish Summer / Fall, Cedar River Summer / Fall (Lake Washington), White River Spring, Green River Summer / Fall, and Nisqually River Summer / Fall (South Puget Sound)], SOUTHERN BRITISH COLUMBIA CHINOOK [includes Coastal Stocks, and Fraser River), OREGON PRODUCTION INDEX AREA COHO (includes Central California Coast, Northern California, Oregon Coastal Natural, Columbia River Late (Hatchery), Columbia River Early (Hatchery), and Columbia River (Natural)], WASHINGTON COASTAL COHO [includes Willapa Bay (Hatchery), Grays Harbor, Quinault (Hatchery), Queets, Hoh, Quillayute Fall, Quillayute Summer (Hatchery), and Western Strait of Juan deFuca), PUGET SOUND COHO (includes Eastern Strait of Juan de Fuca, Hood Canal, Skagit, Stillaguamish, Snohomish, South Puget Sound (Hatchery)], SOUTHERN BRITISH COLUMBIA COAST COHO (includes Coastal Stocks, and Fraser River) and PINK (ODD-NUMBERED YEARS) (includes PUGET SOUND, and Fraser River) - With NMFS approval of Amendment 14 to the Pacific Coast Salmon Plan (Salmon FMP) on September 27, 2000, the Council's criteria for an overfishing concern are met if, in three consecutive years, the post-season estimates

indicate a natural stock has fallen short of its conservation objective (MSY, maximum sustainable production (MSP), or spawner floor as noted for some harvest rate objectives) as listed in Table 3-1 of the Salmon FMP. It is possible that this situation could represent normal variation, as has been seen in the past for several previously referenced salmon stocks which were reviewed under the Council's former overfishing definition. However, the occurrence of three consecutive years of reduced stock size or spawner escapements, depending on the magnitude of the short-fall, could signal the beginning of a critical downward trend which may result in fishing that jeopardizes the capacity of the stock to produce MSY over the long term if appropriate actions are not taken to ensure the automatic rebuilding feature of the conservation objectives is achieved.

Chinook or king salmon (*Oncorhynchus tshawytscha*) and coho or silver salmon (*O. kisutch*) are the main species caught in Council-managed ocean salmon fisheries. In odd-numbered years, catches of pink salmon (*O. gorbuscha*) can also be significant, primarily off Washington and Oregon. Therefore, while all species of salmon fall under the jurisdiction of this plan, it currently contains conservation objectives only for chinook, coho, pink (odd-numbered years only), and any salmon species listed under the Endangered Species Act (ESA) that is measurably impacted by Council fisheries. To the extent practicable, the Council has partitioned this coastwide aggregate of chinook, coho and pink salmon into various stock components with specific conservation objectives. A detailed listing of the individual stocks or stock complexes managed under the Salmon FMP, along with pertinent stock information and conservation objectives, is provided in Chapter 3 of the Salmon FMP.

The Salmon FMP contains no fishery management objectives for even-numbered year pink salmon, chum (*O. keta*), sockeye (*O. nerka*), steelhead (*O. mykiss*), or sea-run cutthroat (*O. clarki*). The Council does not manage fisheries for these species and incidental catches are inconsequential (low hundreds of fish each year) to very rare.

To achieve optimum yield, prevent overfishing, and assure rebuilding of salmon stocks whose abundance has been depressed to an overfished level, the Salmon FMP establishes, to the extent practicable, conservation objectives to perpetuate the coastwide aggregate of salmon stocks covered by the Salmon FMP. The Council's stock conservation objectives (to be achieved annually) and other pertinent stock management information are contained in Table 3-1. Specific objectives are listed for natural and hatchery stocks that are part of the Council's pre-season fishery option development process, including all stocks listed under the federal ESA. The objectives may be applicable to a single stock or a complex of interrelated stocks (those sharing similarities in life-history traits, geographic distribution, habitat preferences and genetic characteristics). Stocks that are not included in the pre-season analyses may lack specific conservation objectives because the stock is not significantly impacted by ocean fisheries or insufficient management information is available from which to assess ocean fishery impacts directly. In the latter case, the conservation objective for a managed stock may serve to provide for the conservation of a closely related stock unless, or until, more specific management information can be developed.

The Council's conservation objectives for natural stocks may (1) be based on estimates for achieving MSY, an MSY proxy, or MSP, or (2) represent special data gathering or rebuilding strategies to approach MSY and to eventually develop MSY or MSP objectives. The objectives have generally been developed through extensive analysis by the fishery management entities with direct management authority for the stock, or through joint efforts coordinated through the Council, or with other state, tribal or federal entities. Most of the objectives for stocks north of Cape Falcon, OR, have been included in U.S. District Court orders. Under those orders for Washington coastal and Puget Sound stocks (U.S. v. Washington, 626 F. Supp. 1405 [1985] and Hoh v. Baldrige No. 81-742 [R] C), the treaty tribes and Washington

Department of Fish and Wildlife may agree to annual spawner targets that differ from the MSP or MSY objectives. Details of the conservation objectives are available in PFMC (1984), in individual amendment documents, and as referenced in Table 3-1.

The Salmon FMP contains three exceptions to the application of overfishing criteria and subsequent Council actions for stocks or stock complexes with conservation objectives in Table 3-1: (1) hatchery stocks, (2) stocks for which Council management actions have inconsequential impacts, and (3) stocks listed under the Endangered Species Act (ESA).

Salmon stocks important to ocean fisheries and comprised exclusively of hatchery production generally have conservation objectives expressed as an egg-take or the number of spawners returning to the hatchery rack to meet program objectives. The Salmon FMP recognizes these objectives and strives to meet them. However, these artificially produced stocks generally do not need the protection of overfishing criteria and special Council rebuilding programs to maintain long-term production. Because hatchery stocks can generally sustain significantly higher harvest exploitation rates than natural stocks, ocean fisheries rarely present a threat to their long-term survival. Therefore, hatchery stocks that meet this criteria are the first exception to the application of overfishing criteria.

Several natural stock components identified within the Salmon FMP are subject to minimal harvest impacts in Council fisheries because of migration timing and/or distribution and therefore are exceptions to the application of overfishing criteria. As a result, the Council's ability to affect the overall trend in the abundance of these components through harvest restrictions is limited. Components in this second exception are identified by a cumulative adult equivalent exploitation rate of less than 5% in ocean fisheries under Council jurisdiction during base periods utilized by the fishery regulation assessment models (1979-1982 for chinook and 1979-1981 for coho).

The Council regards stocks listed as endangered or threatened under the ESA as a third exception to the application of overfishing criteria of the Magnuson-Stevens Act. The ESA requires federal agencies whose actions may jeopardize listed salmon to consult with NMFS. Because NMFS implements ocean harvest regulations, it is both the action and consulting agency for actions taken under the Salmon FMP. To ensure there is no jeopardy, NMFS conducts internal consultations with respect to the effects of ocean harvest on listed salmon. The Council implements NMFS' guidance as necessary to avoid jeopardy, as well as in recovery plans approved by NMFS. As a result of NMFS' consultation, an incidental take statement may be issued which authorizes take of listed stocks under the FMP that would otherwise be prohibited under the ESA. The Council believes that the requirements of the ESA are sufficient to meet the intent of the Magnuson-Stevens Act overfishing provisions. Those provisions are structured to maintain or rebuild stocks to levels at or above MSY and require the Council to identify and develop rebuilding plans for overfished stocks.

OTHER SALMONIDS (includes Sockeye Salmon, Chum Salmon, Pink Salmon (even-numbered years), and Steelhead) - Stocks without specified goals in the FMP are also provided significant protection against overfishing because the Council bases its management on the stock that is first reduced to its annual specified goal level by the fisheries. Such a stock could be the weakest stock or an abundant stock that is heavily impacted by ocean salmon fisheries.

Coastal Pelagics Species - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. For Pacific (Chub) Mackerel

and Pacific Sardine, the definition contains both a fishing mortality rate (F) and biomass (B) component. For Jack Mackerel and Northern Anchovy (Central subpopulation), the overfishing definition contains only a fishing mortality rate (F) component. There are no overfishing definitions for Northern Anchovy (Northern subpopulation) and Market Squid.

Pacific (Chub) Mackerel, Pacific Sardine - In operational terms, overfishing occurs whenever catch exceeds ABC, which is the annual value of the MSY control rule adopted for Pacific mackerel and Pacific sardine, which are actively managed species under the Coastal Pelagic Species FMP.

A stock is overfished when the biomass level is low enough to jeopardize the capacity of the stock to produce MSY on a continuing basis. For Pacific (Chub) Mackerel, the stock is overfished if the stock biomass is 18,200 mt or less. For Pacific Sardine, the stock is overfished if the 1+ stock biomass on July 1 is 50,000 mt or less.

Jack Mackerel, Northern Anchovy (Central subpopulation) - In operational terms, overfishing occurs whenever catch exceeds ABC, which, based on the default MSY control rule used for monitored species, is set at 25% of estimated MSY.

There is no threshold level of stock biomass defining “overfished.”

Northern Anchovy (Northern subpopulation), Market Squid - No overfishing definition exists in the FMP.

Washington, Oregon, and California Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Lingcod, Pacific Ocean Perch, Bocaccio, Canary Rockfish, Cowcod, Darkblotched Rockfish, Widow Rockfish, Yelloweye Rockfish, Bank Rockfish, Shortspine Thornyhead, Longspine Thornyhead, Yellowtail Rockfish, Pacific Whiting, Sablefish, Dover Sole, English Sole, Petrale Sole, Chilipepper Rockfish, Shortbelly Rockfish, Arrowtooth Flounder, Black Rockfish (North), Silvergrey Rockfish, Pacific Cod, Butter Sole, Curlfin Sole, Flathead Sole, Pacific Sanddab, Rex Sole, Rock Sole, Sand Sole, Starry Flounder, Aurora Rockfish, Black-and-Yellow Rockfish, Blackgill Rockfish, Blue Rockfish, Bronzespotted Rockfish, Brown Rockfish, Calico Rockfish, China Rockfish, Copper Rockfish, Dusty Rockfish, Flag Rockfish, Gopher Rockfish, Grass Rockfish, Greenblotched Rockfish, Greenspotted Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Honeycomb Rockfish, Kelp Rockfish, Mexican Rockfish, Olive Rockfish, Pink Rockfish, Quillback Rockfish, Redbanded Rockfish, Redstripe Rockfish, Rosethorn Rockfish, Rosy Rockfish, Rougheye Rockfish, Sharpchin Rockfish, Shortraker Rockfish, Speckled Rockfish, Splitnose Rockfish, Squarespot Rockfish, Starry Rockfish, Stripetail Rockfish, Tiger Rockfish, Vermilion Rockfish, Yellowmouth Rockfish, Leopard Shark, Soupfin Shark, Spiny Dogfish, Big Skate, California Skate, Longnose Skate, Ratfish, Finescale Codling, Pacific Rattail, Cabezon, Kelp Greenling, California Scorpionfish, Treefish – Overfishing occurs when the catch exceeds the fishing mortality rate needed to produce the maximum sustainable yield (F_{msy}). For flatfish and whiting $F_{40\%}$, for rockfish (including thornyheads) $F_{50\%}$, and for other groundfish such as sablefish and lingcod $F_{45\%}$.

A stock is overfished if its current biomass is less than 25% of the unfished biomass level or if the current biomass is less than 50% of the biomass that would produce the maximum sustainable yield (MSY).

Overfishing and overfished parameters cannot be estimated for all species because of the wide range of knowledge available for the species managed under the PCGFMP. Three categories of species are identified. The first includes the few species for which a quantitative stock assessment can be conducted on the basis of catch-at-age or other data. The second category includes a large number of species for which some biological indicators are available, but a quantitative analysis cannot be completed. The third category includes minor species that are caught, but for which there is, at best, only partial information on landed biomass.

Crustaceans of the Western Pacific - The overfishing definitions were disapproved under SFA guidelines. The following overfishing definitions were approved under pre-SFA guidelines and were used to make the assessments contained in this report. These definitions contain both a fishing mortality rate (F) and biomass (B) component.

Spiny Lobster - Lobster stocks shall be deemed overfished with regard to recruitment when the spawning potential ratio (measured for a specific area) is 0.2 or below.

Overfishing is currently not defined (fishing mortality is set equal to zero).

Slipper Lobster - Lobster stocks shall be deemed overfished with regard to recruitment when the spawning potential ratio (measured for a specific area) is 0.2 or below.

Overfishing is currently not defined (fishing mortality is set equal to zero).

Kona Crab - No overfishing definition exists in the FMP.

Precious Corals of the Western Pacific - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Pink Corals, Gold Corals, Bamboo Corals, Black Corals – Overfishing is defined as a fishing mortality rate that exceeds the maximum fishing mortality rate threshold ($F = 0.066$).

A stock is overfished when the total spawning biomass is less than or equal to 20% of its unfished condition ($SPR \leq 20\%$), based on cohort analysis of the pink coral.

Bottomfish and Seamount Groundfish of the Western Pacific - The overfishing definitions were disapproved under SFA guidelines. The following overfishing definition was approved under pre-SFA guidelines and were used to make the assessments contained in this report. These definitions contain only a biomass (B) component.

Pelagic Armorhead, Seabass (Main Hawaiian Islands), Squirrelfish Snapper (Northwest and Main Hawaiian Islands), Longtail Snapper (Northwest and Main Hawaiian Islands), Silverjaw Jobfish, Gray Jobfish, Bluestripe Snapper, Yellowtail Snapper, Pink Snapper, Yelloweye Snapper, Snapper Pristipomoides sieboldii, Snapper Pristipomoides zonatus, Giant Trevally, Black Jack, Thick Lipped Trevally, Amberjack, Blacktip Grouper, Seabass (Northwest Hawaiian Islands), Lunartail Grouper, Ambon Emperor, Redgill Emperor, Alfonsin, Ratfish - A bottomfish species is recruitment overfished when the Spawning Potential Ratio (i.e., the ratio of the spawning stock biomass per recruit at the current level of fishing ($SSBR_f$) to the spawning stock biomass per recruit that would occur in the absence of fishing ($SSBR_u$)), is equal to or less than .20.

Pelagic Fisheries of the Western Pacific - The overfishing definitions were disapproved under SFA guidelines. The following overfishing definitions were approved under pre-SFA guidelines and were used to make the assessments contained in this report. These definitions contain only a biomass (B) component.

Yellowfin Tuna (Central Western Pacific), Albacore (South Pacific), Albacore (North Pacific), Yellowfin Tuna (Eastern Tropical Pacific), Skipjack Tuna (Central Western Pacific), Skipjack Tuna (Eastern Tropical Pacific), Striped Marlin, Black Marlin, Bigeye Tuna (Pacific), other Tuna relatives: Auxis spp., Scomber spp., Allothunnus spp., Swordfish (Pacific), Pomfret, Sailfish (Pacific), Shortbill Spearfish (Pacific), Wahoo (Pacific), Mahimahi (Pacific), Blue Marlin (Pacific), Opah, Oilfish, Escolar - A stock is overfished when its spawning potential ratio (SPR) is equal to or less than 0.20. SPR may be estimated in several ways, using estimates of spawning stock biomass, spawning stock biomass per recruit, spawning stock catch per unit of effort, and exploitable stock biomass. The common element for all calculations is the attempt to assess the status of current spawning potential against the spawning potential of an unfished population. The use of a specific measure will depend on the availability of data for the stock and fisheries involved.

Pelagic Sharks - A stock is overfished when its spawning potential ratio (SPR) is equal to or less than 0.35. SPR may be estimated in several ways, using estimates of spawning stock biomass, spawning stock biomass per recruit, spawning stock catch per unit of effort, and exploitable stock biomass. The common element for all calculations is the attempt to assess the status of current spawning potential against the spawning potential of an unfished population. The use of a specific measure will depend on the availability of data for the stock and fisheries involved.

Gulf of Alaska Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Western / Central Walleye Pollock, Pacific Cod, Sablefish, Shortspine Thornyhead, Arrowtooth Flounder, Western Pacific Ocean Perch, Central Pacific Ocean Perch, Eastern Pacific Ocean Perch, Northern Rockfish, Eastern Walleye Pollock, Atka Mackerel, Alaska Plaice, Butter Sole, Deepsea Sole, Dover Sole, English Sole, Flathead Sole, Greenland Turbot, Rex Sole, Northern Rock Sole, Southern Rock Sole, Sand Sole, Starry Flounder, Yellowfin Sole, Dusky Rockfish, Yelloweye Rockfish, Aurora Rockfish, Blackgill Rockfish, Bocaccio, Chilipepper, Darkblotched Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Pygmy Rockfish, Redbanded Rockfish, Redstripe Rockfish, Roughey Rockfish, Sharpchin Rockfish, Shortbelly Rockfish, Shortraker Rockfish, Silvergrey Rockfish, Splitnose Rockfish, Stripetail Rockfish, Vermilion Rockfish, Yellowmouth

Rockfish, C-O Sole, Curlfin Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Roughscale Sole, Slender Sole, Black Rockfish, Blue Rockfish, Widow Rockfish, Yellowtail Rockfish, Canary Rockfish, China Rockfish, Copper Rockfish, Quillback Rockfish, Rosethorn Rockfish, Tiger Rockfish, Broad Banded Thornyhead, Longspine Thornyhead, Blue Shark, Brown Cat Shark, Pacific Sleeper Shark, Salmon Shark, Sixgill Shark, Spiny Dogfish Shark, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Longnose Skate, Mud Skate, Whiteblotched Skate, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Dusky Sculpin, Great Sculpin, Red Irish Lord, Ribbed Sculpin, Roughspine Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Yellow Irish Lord, Octopus Octopus dofleini, Octopus Octopus leioderma, Octopus Opisthoteuthis californica, Squid Berryteuthis magister, Squid Gonatopsis borealis, Squid Gonatopsis makko, Squid Gonatus sp., Squid Loligo opalescens, Squid Moroteuthis robusta, Squid Onychoteuthis borealijaponicus - Overfishing is defined as any rate of fishing in excess of the maximum fishing mortality threshold (MFMT). The catch corresponding to fishing at a rate equal to the MFMT is referred to as the “overfishing level” (OFL). This MFMT is prescribed through a set of six tiers [which are listed in Appendix 5] in descending order of preference, corresponding to descending order of information availability. The SSC will have final authority for determining whether a given item of information is “reliable” for the purpose of this definition, and may use either objective or subjective criteria in making such determinations. For tier 1, a “pdf” refers to a probability density function. For tiers 1-2, if a reliable pdf of B_{MSY} is available, the preferred point estimate of B_{MSY} is the geometric mean of its pdf. For tiers 1-5, if a reliable pdf of B is available, the preferred point estimate is the geometric mean of its pdf. For tiers 1-3, the coefficient α is set at a default value of 0.05, with the understanding that the SSC may establish a different value for a specific stock or stock complex as merited by the best available scientific information. For tiers (2-4), a designation of the form “ $F_{X\%}$ ” refers to the F associated with an equilibrium level of spawning per recruit (SPR) equal to $X\%$ of the equilibrium level of spawning per recruit in the absence of any fishing. If reliable information sufficient to characterize the entire maturity schedule of a species is not available, the SSC may choose to view SPR calculations based on a knife-edge maturity assumption as reliable. For tier 3, the term $B_{40\%}$ refers to the long-term average biomass that would be expected under average recruitment and $F=F_{40\%}$.

A stock is overfished when it falls below its minimum stock size threshold (MSST), defined as whichever of the following is greater: $\frac{1}{2}$ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock were exploited at the MFMT. The MSY level is interpreted as B_{MSY} in Tiers 1-2 and $B_{35\%}$ in Tier 3. No MSY level, and therefore no MSST, can be specified for Tiers 4-6.

Alaska Salmon - For the following overfishing definitions, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessments contained in this report. The biomass (B) component was approved under pre-SFA guidelines.

Salmon Fisheries in the EEZ off the Coast of Alaska - These overfishing definitions separate the salmon stocks caught in the southeast Alaska (SEAK) EEZ into three tiers. Tier 1 stocks are chinook stocks covered by the Pacific Salmon Treaty (PST)¹. The overfishing definition is based on a harvest based on a relationship between a pre-season relative abundance index generated by the Pacific Salmon

¹Chapter 3 of Annex IV of the Pacific Salmon Treaty (PST) as amended June 30, 1999 (also referred to as the US/Canada bilateral agreement for the Southeast Alaska all-gear chinook catch)

Commission's Chinook Technical Committee and a harvest control rule specified in the PST. Tier 2 are coho salmon stocks. Tier 3 stocks are coho, pink, chum, and sockeye salmon stocks managed as mixed-species complexes, with coho salmon stocks as indicator stocks.

Tier 1: Chinook stocks

- 1) Under the PST, the MSY control rule consists of a segmented linear relationship between catch and relative abundance.
- 2) The fishing mortality rate for these stocks is expressed as cumulative catch per generation time:
- 3) The maximum fishing mortality threshold is 1.075 times the fishing mortality rate associated with the MSY control rule.
- 4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stocks are being subjected to overfishing.
- 5) The productive capacity of a stock group is measured as the sum of the indicator stocks' escapements from the most recent generation.
- 6) The minimum stock size threshold for a stock group is equal to one-half the sum of the indicator stocks' MSY escapement goals from the most recent generation, where each MSY escapement goal is set at the midpoint of the respective escapement goal range established by the Chinook Technical Committee.
- 7) Should a stock group's productive capacity fall below the MSST in any year, it will be determined that the stock group is overfished.

Tier 2: Coho stocks managed as individual units

- 1) The MSY control rule is of the "constant escapement" form. Specifically, the catch corresponding to the control rule in any given year is equal to the amount that would result in a post-harvest run size equal to the MSY escapement goal, unless the pre-harvest run size fails to exceed the MSY escapement goal, in which case the catch corresponding to the control rule is zero.
- 2) The fishing mortality rate for these stocks is expressed as an exploitation rate, and is computed as a weighted average of run-specific exploitation rates observed in the stock from the most recent generation.
- 3) The maximum fishing mortality threshold for these stocks is computed as a weighted average of run-specific exploitation rates corresponding to the MSY control rule from the most recent generation.
- 4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stock is being subjected to overfishing.
- 5) The productive capacity of a stock is measured as the sum of the stock's escapements from the most recent generation.
- 6) The minimum stock size threshold for a stock is equal to one-half the sum of the stock's MSY

escapement goals from the most recent generation.

7) Should a stock's productive capacity fall below the MSST in any year, it will be determined that the stock is overfished.

Tier 3: Coho, sockeye, pink, and chum salmon stocks managed as complexes

The MSY control rule is of the "constant escapement" form. The difference with respect to Tier 2 is not the *form* of the control rule, but rather the level of aggregation at which it is applied. Using the same definitions and criteria described under Tier 2, a determination that one or more indicator coho stocks is being subjected to overfishing or is overfished will constitute a determination that the respective stock complex is being subjected to overfishing or is overfished, except that overfishing of one or more stocks in a stock complex may be permitted, and will not result in a determination that the entire stock complex is being subjected to overfishing, under the conditions set forth in 50 CFR §600.310(d)(6)).

Pink Salmon, Sockeye Salmon, Chum Salmon, Coho Salmon, Chinook Salmon - A stock is overfished when fishing results in the chronic inability to maintain escapements within the stock's escapement target. Escapement targets are set by Alaska Department of Fish and Game and the U.S.-Canada Pacific Salmon Commission so that escapement will not be significantly less than needed to produce MSY. Escapement targets for major stocks of Alaska salmon are continuously evaluated based on new information. The overfishing definition notwithstanding, it is recognized that failure to meet spawner escapements may also be the result of nonfishing mortality and that fishery management actions may not adequately address the situation.

Bering Sea / Aleutian Islands Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Eastern Bering Sea Walleye Pollock, Aleutian Islands Walleye Pollock, Bogoslof Walleye Pollock, Pacific Cod, Yellowfin Sole, Greenland Turbot, Arrowtooth Flounder, Rock Sole, Flathead Sole, Eastern Bering Sea Sablefish, Aleutian Islands Sablefish, Eastern Bering Sea Pacific Ocean Perch, Aleutian Islands Pacific Ocean Perch, Atka Mackerel, Alaska Plaice, Squid Berryteuthis magister, Squid Onychoteuthis borealijaponicus, Longspine Thornyhead, Shortspine Thornyhead, Northern Rockfish, Bering Flounder, Kamchatka Flounder, Sharpchin Rockfish, Shortraker Rockfish, Roughey Rockfish, Arctic Flounder, Butter Sole, C-O Sole, California Tonguefish, Curlfin Sole, Deepsea Sole, Dover Sole, English Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Rex Sole, Roughscale Sole, Sand Sole, Slender Sole, Starry Flounder, Aurora Rockfish, Black Rockfish, Blackgill Rockfish, Blue Rockfish, Bocaccio, Brown Rockfish, Canary Rockfish, Chameleon Rockfish, Chilipepper, Copper Rockfish, Darkblotched Rockfish, Dusky Rockfish, Gray Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Pink Rose Rockfish, Pygmy Rockfish, Redbanded Rockfish, Redstripe Rockfish, Rosethorn Rockfish, Rosy Rockfish, Silvergrey Rockfish, Splitnose Rockfish, Stripetail Rockfish, Tiger Rockfish, Vermilion Rockfish, Widow Rockfish, Yelloweye Rockfish, Yellowmouth Rockfish, Yellowtail Rockfish, Broad Banded Thornyhead, Antlered Sculpin, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Blob Sculpin, Brown Irish Lord, Butterfly Sculpin, Calico Sculpin, Crested Sculpin, Dusky Sculpin, Great Sculpin, Pacific Staghorn Sculpin, Plain Sculpin, Red Irish Lord, Ribbed Sculpin, Scissortail Sculpin, Shorthorn Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Warty Sculpin,

Yellow Irish Lord, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Deepsea Skate, Golden Skate, Longnose Skate, Mud Skate, Okhotsk Skate, White-Blotched Skate, Whitebrow Skate, Pacific Sleeper Shark, Salmon Shark, Spiny Dogfish Shark, Octopus Octopus dofleini, Octopus Opisthoteuthis californica) - Overfishing is defined as any rate of fishing in excess of the maximum fishing mortality threshold (MFMT). The catch corresponding to fishing at a rate equal to the MFMT is referred to as the “overfishing level” (OFL). This MFMT is prescribed through a set of six tiers [which are listed in Appendix 5] in descending order of preference, corresponding to descending order of information availability. The SSC will have final authority for determining whether a given item of information is “reliable” for the purpose of this definition, and may use either objective or subjective criteria in making such determinations. For tier (1), a “pdf” refers to a probability density function. For Tiers 1-2, if a reliable pdf of B_{MSY} is available, the preferred point estimate of B_{MSY} is the geometric mean of its pdf. For Tiers 1-5, if a reliable pdf of B is available, the preferred point estimate is the geometric mean of its pdf. For Tiers 1-3, the coefficient α is set at a default value of 0.05, with the understanding that the SSC may establish a different value for a specific stock or stock complex as merited by the best available scientific information. For Tiers 2-4, a designation of the form “ $F_{X\%}$ ” refers to the F associated with an equilibrium level of spawning per recruit (SPR) equal to $X\%$ of the equilibrium level of spawning per recruit in the absence of any fishing. If reliable information sufficient to characterize the entire maturity schedule of a species is not available, the SSC may choose to view SPR calculations based on a knife-edge maturity assumption as reliable. For Tier 3, the term $B_{40\%}$ refers to the long-term average biomass that would be expected under average recruitment and $F = F_{40\%}$.

A stock is overfished when it falls below its minimum stock size threshold (MSST), defined as whichever of the following is greater: $\frac{1}{2}$ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock were exploited at the MFMT. The MSY level is interpreted as B_{MSY} in Tiers 1-2 and $B_{35\%}$ in Tier 3. No MSY level, and therefore no MSST, can be specified for Tiers 4-6.

Bering Sea / Aleutian Islands King and Tanner Crabs - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Blue King Crab (Pribilof Islands, Saint Matthew Island, Saint Lawrence Island), Golden King Crab (Aleutian Islands, Pribilof Islands, Northern District), Red King Crab (Bristol Bay, Norton Sound, Pribilof Islands, Aleutian Islands), Aleutian Islands Scarlet King Crab, Bering Sea Snow Crab, Tanner Crab [Bering Sea, Bering Sea Triangle, Bering Sea Grooved, Eastern Aleutian Islands, Eastern Aleutian Islands Triangle, Eastern Aleutian Islands Grooved, Adak (Western Aleutians), Western Aleutian Islands Grooved] -Overfishing is defined as any rate of fishing mortality in excess of M , where $M = 0.2$ for all species of king crab and $M = 0.3$ for all *Chionoecetes* species.

A stock is overfished when it falls below the minimum stock size threshold (MSST), which is equal to $\frac{1}{2}$ the MSY stock size. MSY stock size equals the average mature biomass observed over the past 15 years, from 1983-1997.

Alaska Scallop - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing is defined as level of fishing mortality that jeopardizes the long-term capacity of a stock or stock complex to produce MSY on a continuing basis. Overfishing is established as a fishing rate in excess of the natural mortality rate (M). Hence, $F_{\text{overfishing}} \geq M = 0.13$. MSY is the largest long-term average catch that can be taken from a stock under prevailing ecological and environmental conditions. MSY for weathervane scallops is 1.24 million pounds of shucked adductor muscles. MSY is calculated based on the average catch from 1990-1997 (1995 data not included as only an abbreviated scallop season occurred). MSY control rule is a harvest strategy expected to result in a long-term average catch approximating MSY. The MSY control rule is based on natural mortality, using the estimate of $M = 0.13$, the MSY control rule is $F_{\text{msy}} = M$. No control rule for spiny, pink, or rock scallops is recommended at this time.

A stock is overfished when it falls below the minimum stock size threshold (MSST), which is equal to $\frac{1}{2}$ MSY stock size = 4.76 million pounds.

Atlantic Billfishes - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Blue Marlin (North Atlantic), White Marlin (North Atlantic), Sailfish (West Atlantic), Spearfish (West Atlantic) – Overfishing occurs when the MFMT exceeds F_{MSY} . The relative fishing mortality rates are as follows: Blue Marlin (North Atlantic) ($F_{1995}/F_{\text{MSY}} = 1.21$), White Marlin (North Atlantic) ($F_{1995}/F_{\text{MSY}} = 2.37$), and Sailfish ($F_{1995}/F_{\text{MSY}} = 1.4$).

A stock is overfished when the stock biomass level falls below the MSST, which is set at $(1-M)B_{\text{MSY}}$, where M is the instantaneous natural mortality rate. The relative biomass levels are as follows: Blue Marlin (North Atlantic) ($B_{1996}/B_{\text{MSY}} = 0.608$), White Marlin (North Atlantic) ($B_{1996}/B_{\text{MSY}} = 0.321$), and Sailfish / Spearfish (West Atlantic) ($B_{1992/96}/B_{\text{MSY}} = 0.62$).

Atlantic Tunas, Swordfish, and Sharks - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Bigeye Tuna (Atlantic), Albacore (North Atlantic), Bluefin Tuna (West Atlantic), Swordfish (North Atlantic), Sandbar Shark, Blacktip Shark, Dusky Shark, Spinner Shark, Silky Shark, Bull Shark, Bignose Shark, Narrowtooth Shark, Galapagos Shark, Night Shark, Caribbean Reef Shark, Tiger Shark, Lemon Shark, Sand Tiger Shark, Bigeye Sand Tiger Shark, Nurse Shark, Scalloped Hammerhead Shark, Great Hammerhead Shark, Smooth Hammerhead Shark, Whale Shark, Basking Shark, White Shark, Yellowfin Tuna (West Atlantic), Atlantic Sharpnose Shark, Caribbean Sharpnose Shark, Finetooth Shark, Blacknose Shark, Smalltail Shark, Bonnethead Shark, Atlantic Angel Shark, Skipjack Tuna (West Atlantic), Shortfin Mako Shark, Longfin Mako Shark, Porbeagle Shark, Thresher Shark, Bigeye Thresher Shark, Blue Shark, Oceanic Whitetip

Shark, Sevengill Shark, Sixgill Shark, Bigeye Sixgill Shark, Iceland Cat Shark, Smallfin Cat Shark, Deepwater Cat Shark, Broadgill Cat Shark, Marbled Cat Shark, Blotched Cat Shark, Chain Dogfish, Dwarf Catshark, Japanese Gulper Shark, Gulper Shark, Little Gulper Shark, Kitefin Shark, Flatnose Gulper Shark, Portuguese Shark, Greenland Shark, Lined Lanternshark, Broadband Dogfish, Caribbean Lanternshark, Great Lanternshark, Smooth Lanternshark, Fringefin Lanternshark, Green Lanternshark, Cookiecutter Shark, Bigtooth Cookiecutter, Smallmouth Velvet Dogfish, Pygmy Shark, Roughskin Spiny Dogfish, Blainville's Dogfish, Cuban Dogfish, Bramble Shark, American Sawshark, Florida Smoothhound, Smooth Dogfish -

Overfishing occurs when the MFMT is exceeded, which is set at $F_{\text{limit}} = F_{\text{MSY}}$. The relative fishing mortality rates ($F_{\text{year}}/F_{\text{MSY}}$) are as follows: North Atlantic Swordfish ($F_{98}/F_{\text{msy}} = 1.34$), West Atlantic Bluefin Tuna (F_{97}/F_{MSY} two-line = 1.73), Bigeye Tuna ($F_{98}/F_{\text{MSY}} = 1.50 - 1.82$), North Atlantic Albacore Tuna ($F_{97}/F_{\text{MSY}} = 1.39$ (uncertain)), Yellowfin Tuna ($F_{97}/F_{\text{MSY}} = \text{variable}$, probably exceeds 1.0), Blacktip Shark ($F_{97}/F_{\text{MSY}} = 3.52$ (baseline)), Sandbar Shark ($F_{97}/F_{\text{MSY}} = 2.70$ (baseline)), Large Coastal Sharks ($F_{97}/F_{\text{MSY}} = 6.34$ (baseline)), and Small Coastal Sharks ($F_{86-91}/F_{\text{MSY}} = 0.89$).

A stock is overfished when the stock level biomass falls below MSST, which is set at $\text{MSST} = B_{\text{limit}} = (1 - M)B_{\text{MSY}}$ when $M < 0.5$; $\text{MSST} = B_{\text{limit}} = 0.5B_{\text{MSY}}$ when $M \geq 0.5$. For Yellowfin Tuna, $\text{MSST} = 0.5B_{\text{MSY}}$. The relative biomass levels are as follows: ($B_{\text{year}}/B_{\text{MSY}}$) for North Atlantic Swordfish ($B_{98}/B_{\text{MSY}} = 0.65$), West Atlantic Bluefin Tuna ($\text{SSB}_{97}/\text{SSB}_{\text{MSY}}$ two-line = 0.48), Bigeye Tuna ($B_{98}/B_{\text{MSY}} = 0.57-0.63$), North Atlantic Albacore Tuna ($B_{97}/B_{\text{MSY}} = 0.47$ (0.34-0.63)), Yellowfin Tuna ($B_{97}/B_{\text{MSY}} = 0.92-1.35$), Blacktip Shark* ($N_{98}/N_{\text{MSY}} = 0.50$ (baseline)), Sandbar Shark* ($N_{98}/N_{\text{MSY}} = 0.58$ (baseline)), Large Coastal Sharks* ($N_{98}/N_{\text{MSY}} = 0.30$ (baseline)), and Small Coastal Sharks ($B_{91}/B_{\text{MSY}} = 1.12$).

*N is the number of fish, rather than biomass or yield in weight.

APPENDIX 3. OVERFISHING DEFINITIONS FOR SPECIES NOT CONTAINED IN FEDERAL FISHERY MANAGEMENT PLANS

American Lobster - The following overfishing definition was approved under pre-SFA guidelines and the assessments contained in this report are based on this definition. This definition contains only a fishing mortality rate (F) component.

The American lobster resource is considered recruitment overfished when, throughout its range, the fishing mortality rate (F), given the regulations in place at that time under the suite of regional management measures, results in a reduction in estimated egg production per recruit to 10% or less of a non-fished population (F 10%).

Atlantic Menhaden - The overfishing definition contained in the FMP has F-based and SSB-based benchmarks. The F-based benchmarks are $F_{\text{threshold}} = 1.3$ and $F_{\text{target}} = 1.0$, and the SSB-based benchmarks are $SSB_{\text{threshold}} = 20,570$ mt and $SSB_{\text{target}} = 37,400$ mt.

Northern Shrimp - There is currently no approved ASMFC overfishing definition, however, the SARC has recommended an interim management target $F(1999-2000) = 0.34 = F40\%$.

Tautog - The overfishing definition is contained in the ASMFC Tautog FMP and was used to make the assessment contained in this year's report. This definition contains only a fishing mortality rate (F) component.

Overfishing occurs when F exceeds the threshold, or the interim, fishing rate of 0.24. The FMP established a target fishing rate equal to that of natural mortality ($F=M=0.15$).

Weakfish - The overfishing definition contained in the FMP under development has not been formally approved, but was used to make the assessment regarding stock level in this year's report.

A stock is overfished when the biomass is less than B_{MSY} . The best available estimate of B_{MSY} proxy is 53,6000 mt.

Pacific Halibut - A rate of fishing that exceeds the constant exploitation yield. The constant exploitation yield is computed using a harvest rate of 0.20 of the exploitable biomass (8-year+ Pacific halibut).

APPENDIX 4. OVERFISHING DEFINITIONS FROM FISHERY MANAGEMENT PLANS UNDER DEVELOPMENT

Skates

The following overfishing definitions have not been approved, but are the working definitions that currently exist in the FMP under development. The regular stock assessment process was used to assess these stocks and status determinations were made on the basis of these proposed overfishing definitions.

Winter Skate - Overfishing exists when F is greater than $F=M=0.10$, the SFA threshold fishing mortality reference point.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Middle Atlantic offshore region during 1967-1998. The best available estimate of B_{msy} proxy is 6.46 kg/tow (SAW-30, 2000).

Barndoor Skate - There is no overfishing definition contained in the FMP under development.

A stock is overfished when the biomass is below the mean value of the NEFSC autumn biomass indices for the Gulf of Maine / Southern New England offshore region during 1963-1966. The best available estimate of B_{msy} proxy is 1.62 kg/tow (SAW-30, 2000).

Thorny Skate - There is no overfishing definition contained in the FMP under development.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Southern New England offshore region during 1963-1998. The best available estimate of B_{msy} proxy is 4.4 kg/tow (SAW-30, 2000).

Smooth Skate - There is no overfishing definition contained in the FMP under development.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Southern New England offshore region during 1963-1998. The best available estimate of B_{msy} proxy is 0.32 kg/tow (SAW-30, 2000).

Little Skate - Overfishing exists when F is greater than $F=M=0.40$, the SFA threshold fishing mortality reference point.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Middle Atlantic offshore region during 1982-1999. The best available estimate of B_{msy} proxy is 6.54 kg/tow (SAW-30, 2000).

Clearnose Skate - There is no overfishing definition contained in the FMP under development.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Middle Atlantic inshore and offshore regions during 1975-1998. The best available estimate of B_{msy} proxy is 0.56 kg/tow (SAW-30, 2000).

Rosette Skate - There is no overfishing definition contained in the FMP under development.

A stock is overfished when the biomass is below the 75th percentile value of the NEFSC autumn biomass indices for the Middle Atlantic offshore region during 1967-1998. The best available estimate of B_{msy} proxy is 0.03 kg/tow (SAW-30, 2000).

APPENDIX 5. SIX TIERS COMPRISING THE OVERFISHING DEFINITION FOR GULF OF ALASKA AND BERING SEA /ALEUTIAN ISLANDS GROUND FISH

See Appendix 6 for definitions of acronyms used in this appendix.

- 1) Information available: Reliable point estimates of B and B_{MSY} and reliable pdf of F_{MSY} .
 - 1a) Stock status: $B/B_{MSY} > 1$
 $F_{OFL} = \mu_A$, the arithmetic mean of the pdf
 $F_{ABC} \leq \mu_H$, the harmonic mean of the pdf
 - 1b) Stock status: $\alpha < B/B_{MSY} \leq 1$
 $F_{OFL} = \mu_A \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
 $F_{ABC} \leq \mu_H \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
 - 1c) Stock status: $B/B_{MSY} \leq \alpha$
 $F_{OFL} = 0$
 $F_{ABC} = 0$
- 2) Information available: Reliable point estimates of B , B_{MSY} , F_{MSY} , $F_{35\%}$, and $F_{40\%}$.
 - 2a) Stock status: $B/B_{MSY} > 1$
 $F_{OFL} = F_{MSY}$
 $F_{ABC} \leq F_{MSY} \times (F_{40\%}/F_{35\%})$
 - 2b) Stock status: $\alpha < B/B_{MSY} \leq 1$
 $F_{OFL} = F_{MSY} \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
 $F_{ABC} \leq F_{MSY} \times (F_{40\%}/F_{35\%}) \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
 - 2c) Stock status: $B/B_{MSY} \leq \alpha$
 $F_{OFL} = 0$
 $F_{ABC} = 0$
- 3) Information available: Reliable point estimates of B , $B_{40\%}$, $F_{35\%}$, and $F_{40\%}$.
 - 3a) Stock status: $B/B_{40\%} > 1$
 $F_{OFL} = F_{35\%}$
 $F_{ABC} \leq F_{40\%}$
 - 3b) Stock status: $\alpha < B/B_{40\%} \leq 1$
 $F_{OFL} = F_{35\%} \times (B/B_{40\%} - \alpha) / (1 - \alpha)$
 $F_{ABC} \leq F_{40\%} \times (B/B_{40\%} - \alpha) / (1 - \alpha)$
 - 3c) Stock status: $B/B_{40\%} \leq \alpha$
 $F_{OFL} = 0$
 $F_{ABC} = 0$
- 4) Information available: Reliable point estimates of B , $F_{35\%}$, and $F_{40\%}$.
 $F_{OFL} = F_{35\%}$
 $F_{ABC} \leq F_{40\%}$
- 5) Information available: Reliable point estimates of B and natural mortality rate M .
 $F_{OFL} = M$
 $F_{ABC} \leq 0.75 \times M$
- 6) Information available: Reliable catch history from 1978 through 1995.
 $OFL =$ the average catch from 1978 through 1995, unless an alternative value is established by the SSC on the basis of the best available scientific information.
 $ABC \leq 0.75 \times OFL$

APPENDIX 6. ACRONYMS USED IN APPENDICES

α - The threshold stock size .05.

ABC - Allowable Biological Catch - A term that refers to the range of allowable catch for a species or species group. It is set each year by a scientific group. The ABC estimates are used to set the annual total allowable catch (TAC).

ASMFC - Atlantic States Marine Fisheries Commission - Serves as a deliberative body of the Atlantic coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell, and anadromous species.

B - The weight (biomass) of a group of fish.

B_{MSY} - The weight (biomass) of a group of fish necessary to produce MSY.

CFMC - Caribbean Fishery Management Council.

CPUE - Catch Per Unit of Effort - The number of fish caught by an amount of effort. Typically, effort is a combination of gear type, gear size, and length of time gear is used. Catch per unit of effort is often used as a measurement of relative abundance.

EEZ - Exclusive Economic Zone - All waters from the seaward boundary of coastal states out to 200 nautical miles.

EPR - Eggs-Per-Recruit - The average number of eggs produced by an individual fish that has been recruited, i.e., that moved into a certain class, such as the spawning class or fishing-size class. Used as an index of abundance.

F - Fishing Mortality Rate - A measurement of the rate of removal of fish from a population by fishing. Fishing mortality rate can be reported as either annual or instantaneous. Annual mortality is the percentage of fish dying in one year. Instantaneous mortality is that percentage of fish dying at any one point in time.

F_{ABC} - The level of fishing mortality that results in the allowable biological catch.

F_{MAX} - The level of fishing mortality that results in the greatest yield from the fishery.

F_{MSY} - The level of fishing mortality that results in the maximum sustainable yield.

F_{OF} - The level of fishing mortality defined as overfishing.

F_{OFL} - The level of fishing mortality associated with the average catch from 1978 through 1995 for Gulf of Alaska Groundfish and Bering Sea / Aleutian Islands Groundfish.

F_{20%} - The level of fishing mortality that results in a spawning potential ratio of 20% of the maximum.

E_{25%} - The level of fishing mortality that results in a spawning potential ratio of 25% of the maximum.

E_{30%} - The level of fishing mortality that results in a spawning potential ratio of 30% of the maximum.

E_{40%} - The level of fishing mortality that results in a spawning potential ratio of 40% of the maximum.

E_{0.1} - The point on the spawning per recruit curve at which the level of spawning per recruit is 35% of 40% of the maximum.

FMP - Fishery Management Plan - A plan to achieve specified management goals for a fishery prepared under the authority of the Magnuson-Stevens Fishery Conservation and Management Act.

GMFMC - Gulf of Mexico Fishery Management Council.

GSMFC - Gulf States Marine Fisheries Commission - Serves as a deliberative body of the Gulf of Mexico coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell, and anadromous species.

HMS - Highly Migratory Species Division - Develops fishery policies designed to manage any highly migratory species (tuna species, marlin, oceanic sharks, sailfishes, and swordfish) fishery that is within the geographical authority of more than one Council.

MAFMC - Middle-Atlantic Fishery Management Council.

MFMT – Maximum Fishing Mortality Threshold – The level or rate of fishing mortality, that if exceeded, will result in overfishing and jeopardize the capacity of a stock or stock complex to produce MSY on a continuing basis.

MSP - Maximum Spawning Potential - See SPR.

MSST – Minimum Stock Size Threshold – The minimum size of the stock or stock complex that is required to produce MSY, below which the stock would be considered overfished. The threshold should equal whichever of the following is greater: ½ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock were exploited at the maximum fishing mortality threshold.

MSY - Maximum Sustainable Yield - The largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

NEFMC - New England Fishery Management Council.

NEFSC - NMFS, Northeast Fisheries Science Center.

NPFMC - North Pacific Fishery Management Council.

OY - Optimum Yield - The amount of fish that: (1) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (2) is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factors; (3) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the MSY in such fishery.

pdf - Probability Density Function - A description of the probability that a variable takes a specified value.

PFMC - Pacific Fishery Management Council.

SAFE - Stock Assessment and Fishery Evaluation - A document or set of documents that provides Councils with a summary of the most recent biological condition of species in the fishery management unit, and the social and economic condition of the recreational and commercial fishing interests and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks and fisheries being managed under Federal regulation.

SAFMC - South Atlantic Fishery Management Council.

SARC - Stock Assessment Review Committee.

SPR - Spawning Potential Ratio - The number of eggs that could be produced by an average recruit in a fished stock, divided by the number of eggs that could be produced by an average recruit in an unfished stock. SPR can also be expressed as the spawning stock biomass per recruit (SSBR) of a fished stock divided by the SSBR of the stock before it was fished.

SSB - Spawning Stock Biomass - The total weight of the fish in a stock that are old enough to spawn.

SSBR - Spawning Stock Biomass Per Recruit - The spawning stock biomass divided by the number of recruits to the stock, or how much spawning biomass an average recruit would be expected to produce.

SSC - Scientific and Statistical Advisory Committee - A group of scientific and technical people giving advice to a council.

WPFMC - Western Pacific Fishery Management Council.