

**REPORT TO CONGRESS**

**STATUS OF FISHERIES OF THE  
UNITED STATES**

**PREPARED BY**

**NATIONAL MARINE FISHERIES SERVICE**

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# Report on the Status of Fisheries of the United States

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# REPORT TO CONGRESS ON STATUS OF FISHERIES OF THE UNITED STATES

## EXECUTIVE SUMMARY

The Sustainable Fisheries Act (SFA), Public Law 104-297 of October 11, 1996, reauthorized and amended the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The reauthorized MSA requires the Secretary of Commerce to report to Congress annually on the status of fisheries within each Council's geographical area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. This is the fourth annual report.

The SFA requires the identification of overfished stocks to be based on the current overfishing definitions found in Fishery Management Plans (FMPs). The SFA also defined "overfished" and "overfishing," and required that FMP definitions, amended to be consistent with the new statutory definition, be submitted to the Secretary by October 11, 1998. Many of the new definitions contained in FMPs have been submitted and approved consistent with the National Standard Guidelines (50 CFR 600.305), and additional stocks have been identified as overfished.

This report covers 905 stocks in the U.S. EEZ. Based on the criteria in the MSA, the Report on the Status of Fisheries finds that 72 stocks were found to have overfishing occurring (the harvest rate was above a prescribed threshold), 92 were determined to be overfished (the stock size was below a prescribed threshold). Of those stocks, 57 were found to have both overfishing occurring and to be overfished.

The number of stocks that were experiencing overfishing declined from 77 in 1999 to 72 in 2000. Coincidentally, the stocks for which there was no overfishing increased from 159 in 1999 to 210 in 2000. In terms of being overfished, the stocks for which the biomass was below the prescribed threshold increased from 64 in 1999 to 92 in 2000. Of the 37 additional stocks identified as overfished this year (9 were removed from the overfished list), 23 were so classified because of a change in the overfishing definition utilized rather than a decline in the size of the stock. While the stocks that are overfished increased this year, 148 stocks were determined to be not overfished, compared to 122 in 1999. Five stocks were determined to be approaching an overfished condition, the same as in 1999.

In order to provide information on the most important stocks, this year's report separates the stocks into major and minor categories. This division was based on whether a stock had annual landings of more than 200,000 pounds. In 2000, 287 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 618 minor stocks. Forty-seven major stocks were determined to have overfishing occurring; 139 stocks had harvesting rates below the approved threshold. Fifty-six major stocks were determined to be overfished and 106 were not overfished. The five stocks that were approaching an overfished condition were major stocks.

Also of note is that the status of a large number of stocks continues to be classified as either unknown

or undefined, i.e., an overfishing definition was not available. Of the 905 stocks in the report, the status of more than 600 was either unknown or was classified as undefined. The vast majority of these unknown or undefined stocks are classified as minor stocks. Minor stocks, in fact, accounted for 83 percent of the stocks whose status were either unknown or undefined, while only 17 percent of the unknown and undefined stocks were categorized as major.

This report identifies 75 rebuilding programs that are either currently implemented or approved. To enhance understanding of the rebuilding programs in effect, this year's report includes 31 rebuilding programs that were implemented prior to the enactment of SFA. Forty-four of the programs were approved after enactment of the SFA, however, 27 of those have not been implemented, pending international agreement on management programs. There are two rebuilding programs under Secretarial review and two under development. Five overfished stocks have not had rebuilding programs submitted, and one program was disapproved.

## **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 fourth annual report on the status of stocks and overfishing that NMFS has provided to Congress and the Regional Fishery Management Councils (Councils). It serves not only to describe the status of stocks in regards to overfishing, but also contains information on the status of rebuilding plans.

As is explained in more detail below, the format and content of this year's report have been changed, in response to comments received on previous reports from the Councils, NMFS Regions and Science Centers, and the public. More detail is provided on each stock and the basis for its classification, new tables summarize whether stocks are major or minor, and detailed sections on methodology for classification of stocks have been moved to appendices to improve overall readability.

This year's report is arranged around six tables. The first two provide summary information and the last four provide more detailed information on each listed stock and fishery management plan (FMP).

- Table 1. Summary of stocks by Council area, compared for 1999 and 2000.
- Table 2. Description of major and minor stocks by Council for 2000.
- Table 3. Stocks in a management unit identified in an FMP.
- Table 4. Stocks in an FMP, but not the management unit.
- Table 5. Stocks not in an FMP.
- Table 6. Stocks in an FMP 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 policy changes; methodology for defining over fishing.
- Appendix 2. Overfishing definitions in FMPs.
- Appendix 3. Overfishing definitions for non-FMP stocks.
- Appendix 4. Overfishing definitions for FMPs under development
- Appendix 5. Overfishing definitions for Alaska groundfish fisheries.
- Appendix 6. Acronym guide.

## **Listing of Stocks**

As in past reports, 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 40 approved and implemented federal FMPs, eight 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 14 new stocks. Some are in FMPs under development or are not within an FMP, while others have resulted from separating one stock into two or more stocks for separate analysis. Also, last year's report listed seven stocks of skates not contained in FMPs. The same seven stocks are now in an FMP under development, and three, Brier Skate, Leopard Skate, and Smooth-tailed Skate, are referred to now as Clearnose Skate, Rosette Skate, and Smooth Skate, respectively. Gulf of Mexico Rock Shrimp and Seabob Shrimp are no longer contained in the management unit, even though they are in the FMP. American Lobster is now managed by the Atlantic States Marine Fisheries Commission and is no longer under a Federal FMP.

Thirteen stocks have been removed from the report. Eulachon, Capelin, and Rainbow Smelt in the Gulf of Alaska Groundfish and Bering Sea/Aleutian Islands Groundfish FMPs are now classified as forage fish and no longer contained in the groundfish management unit. Little Tunny was inadvertently listed twice in two separate tables, and is now listed only with the Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic FMP. Gulf of Mexico Pigfish, Grass Porgy, Tomtate, Jolthead Porgy, Gulf of Alaska Bering Flounder, and Gulf of Alaska Kamchatka Flounder are no longer contained in the FMP or the management unit, and have been deleted from this report.

## **Major and Minor Stocks**

This year's report distinguishes major from minor stocks, in terms of their importance to U.S. fishermen and the industry. Stocks are classified based on landings data that 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. The amount of landings reflects the size of the stock and 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. The separation of major from minor stocks represents an initial attempt to highlight species important to domestic fisheries, but for which the status remains unknown. It also could serve as a useful guide on where to place new research funds as they become available.

## **Format Changes**

Several format changes have been made to help avoid some of the confusion experienced with the 1999 report. They are summarized below and detailed in Appendix 1.

1. Information is presented more clearly on necessary management actions and progress in rebuilding overfished stocks. Determinations are presented separately for those stocks where overfishing is occurring (fishing mortality rate is above a prescribed threshold), and for those stocks that are overfished (biomass is below a prescribed threshold).
2. The column (titled overfished) from last year's tables has been deleted, that provided a combined determination of the findings of the biomass column and the fishing mortality rate column. This was done to avoid confusion stemming from situations in which a stock had a fishing mortality rate exceeding the prescribed threshold and had a biomass that was above the prescribed minimum stock size threshold (MSST), but, nonetheless, was listed as overfished. The remaining two columns clearly distinguish between when a stock is overfished and when overfishing is occurring.
3. Last year's report did not distinguish between fishing mortality rate and stock size in determining if a stock was "approaching an overfished condition." This year, the determination is based on criteria in the FMP. For some stocks, proxies for maximum sustainable yield (MSY) and MSST are used to determine if a stock is approaching an overfished condition as defined in Appendix 2.
4. This year's report divides the overfishing and overfished columns into pre- and post-SFA overfishing definitions to clarify the basis for making the determinations.
5. This year's report provides additional information about those stocks for which rebuilding programs are required. Required management actions are identified and progress in

rebuilding is indicated with numbers of years the program has been in place and how long it is expected to last.

6. A complete description of the methodology used for determining status of stocks is available as part of Appendix 1.

## **RESULTS**

### **Overfishing**

The number of stocks for which harvest rates exceed the overfishing threshold declined from 77 in 1999 to 72 in 2000. The number of stocks found to have no overfishing increased from 159 in 1999 to 210 in 2000. The number of stocks for which harvest rates were unknown or for which overfishing thresholds were not defined declined from 665 in 1999 to 623 in 2000. This pattern generally held for stocks contained in FMPs of most Councils, although the stocks for several Councils remained unchanged from 1999. For stocks contained in FMPs of the New England Council and the Atlantic States Marine Fisheries Commission, there was a slight increase in 2000.

### **Overfished**

The number of stocks determined to be overfished rose from 64 in 1999 to 92 in 2000. This resulted primarily from a technical change in the report rather than a sudden decline in the biomass of the stocks. In 1999, 23 stocks were listed as undefined because the biomass portion of the definition under the SFA had been disapproved. However, pre-SFA definitions remain in the FMP, and, in accordance with MSA requirements, should have been used in the determination of whether those stocks were overfished. This situation was primarily noted in the South Atlantic, Gulf of Mexico, and Caribbean Council areas.

While the number of overfished stocks increased in 2000, the number of stocks determined to be not overfished also increased. Stocks found not overfished increased from 122 in 1999, to 148 in 2000. Except for slight declines in Mid-Atlantic and Highly Migratory Species stocks, this increase was spread across all other Councils. Overall, the number of stocks for which the biomass was either unknown or undefined, declined by 56 to 660. In addition, there was a significant shift from stocks that were listed as undefined in 1999 to a listing of unknown in the South Atlantic, Gulf of Mexico, and Caribbean Council areas this year. Most of the stocks in this group were included in definitions adopted prior to the SFA, but their biomass status was unknown.

### **Approaching an Overfished Condition**

Five stocks were found to be “approaching an overfished condition,” the same as in 1999. The criterion for determining whether a stock can be placed in this category has been changed. Last year, a stock could have been placed in this category based on either the harvest rate or biomass. After reviewing the criteria this year, it was determined that essential parts of the determination were the

status and trend of the stock. Unless the status of the stock was known, a determination that the stock would become overfished within two years could not 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 was approaching an overfished condition. In some cases, the pre-SFA definition remained in the FMP and was used as the basis for the determinations. It should also be noted that the number of stocks in the “Approaching Overfished Condition” column for 2000 should always be added to the “Overfished” columns to arrive at a final total, because all determinations are based on the stock size or equivalent.

### **Major and Minor Stocks**

In 2000, major stocks accounted for the vast majority of landings, totaling more than 8 billion pounds, compared to only 9 million pounds for minor stocks. Forty-seven major stocks were determined to have overfishing occurring; 139 stocks had harvesting rates below the approved threshold. Twenty-five minor stocks were experiencing overfishing; 71 stocks had harvest levels below the approved threshold. Fifty-six major stocks were determined to be overfished and 106 were not overfished. In contrast, only 36 minor stocks were overfished and 42 were not overfished. The five stocks that were approaching an overfished condition were major stocks.

Minor stocks accounted for 83 percent of the stocks whose status were either unknown or undefined, while only 17 percent of the unknown and undefined stocks were categorized as major. Thus, there appears to be considerable information about the fishing rates and biomass size for most major stocks, i.e., those with significant landings and economic value. NMFS and the Councils have appropriately targeted these stocks with their data collection and assessment efforts, and most of the remaining major stocks where information is limited are those just above the 200,000-pound landings threshold. Additional effort to fully assess these stocks may not be justified at this time.

### **Rebuilding Programs**

This report identifies 75 rebuilding programs either currently implemented or approved. To enhance understanding of the scope of rebuilding programs, this report includes 31 rebuilding programs that were implemented prior to SFA. Forty-four of the programs were approved after enactment of the SFA, including two stocks in the New England Multispecies fishery that are listed as unspecified. Of these 44 rebuilding programs, 27 have been approved, but not implemented, pending completion of a peer review required by a legal settlement. In addition, two rebuilding programs are under Secretarial review and two are being developed. Five overfished stocks have not had rebuilding programs submitted, and one program was disapproved. Finally, there are 10 stocks for which formal rebuilding programs were not required to be submitted because no fishing is allowed in these fisheries. Because this is the maximum management restriction possible, no further action was required. However, should fishing be allowed at some point, a formal rebuilding program would have to be submitted for approval.

## Specific Stock Determinations

### Changes from 1999

Last year, 34 stocks were listed as overfished because the fishing mortality rate exceeded the established MSST, not because the biomass was below the established minimum biomass threshold. For 23 of those stocks, the biomass determination was listed as undefined because this component of the overfishing definition had either been disapproved or was not available for consideration. Upon review, NMFS determined that a pre-SFA definition remained in effect in the FMPs for these stocks, and this should be used to make a determination this year. Therefore, the change in status determination was made because of the availability of the pre-SFA definition rather than a change in the biomass.

For 2000, the following 23 stocks are now listed as overfished based on the pre-SFA definition in the FMPs:

1. South Atlantic: Jewfish, Nassau Grouper, Vermilion Snapper, Red Porgy, Gag, Red Snapper, Speckled Hind, Snowy Grouper, Warsaw Grouper, Golden Tilefish, Yellowtail Snapper, Red Grouper, Black Grouper, and Red Drum.
2. Gulf of Mexico: King Mackerel, Red Snapper, Red Grouper, Nassau Grouper, Jewfish, and Red Drum.
3. Caribbean: Nassau Grouper, Jewfish, and Queen Conch.

Spiny Dogfish and Atlantic Bigeye Tuna are now listed as overfished based on the fully approved overfishing definition contained in their respective FMPs. Seven of the 34 stocks (Atlantic Sea Scallop - Middle Atlantic, Gulf of Maine Cod, Georges Bank Cod, Gulf of Maine/Northern Georges Bank Silver Hake, Gulf of Maine/Georges Bank Windowpane Flounder, South Atlantic Black Sea Bass, and Pacific Bank Rockfish) are now listed as not overfished, and one is listed as approaching an overfished condition (Pacific Darkblotched Rockfish). For the remaining two stocks, American Lobster was revised to “undefined,” and Pacific Silvergrey Rockfish was determined to be “unknown.”

For nine additional stocks listed as overfished in 1999 based on the biomass level (Cape Cod Yellowtail Flounder, American Plaice, White Hake, Georges Bank Winter Flounder, *Loligo* Squid, Coho Salmon, (Strait of Juan de Fuca), Chinook Salmon (Snohomish River, Summer / Fall), Bering Sea Snow Crab, and Weakfish), the most recent assessments based on the current overfishing definitions support removing them from the overfished list.

A number of stocks are now classified as not overfished because the biomass level exceeds the MSST, 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 they are rebuilt. The stocks include Atlantic Sea Scallops (2 stocks), Cape Cod Yellowtail Flounder, White Hake, Georges Bank Winter Flounder, Georges Bank Cod, Gulf of Maine Cod, Gulf of Maine/

Northern Georges Bank Silver Hake, South Atlantic Black Sea Bass, and Bering Sea Snow Crab.

Thirteen 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 Georges Bank Cod, Gulf of Maine Haddock, Gulf of Maine/Georges Bank Windowpane Flounder, Georges Bank Winter Flounder; South Atlantic Jewfish and Nassau Grouper; Gulf of Mexico King Mackerel, Nassau Grouper, Jewfish, and Red Drum; Caribbean Nassau Grouper and Jewfish; and Bank Rockfish.

There are five stocks whose status has changed from unknown to both “no overfishing occurring” and “not overfished” because enough information is now available to make reliable assessments. They include Pribilof Islands Blue King Crab, Pribilof Islands Red King Crab, Arrowtooth Flounder (Pacific), Black Rockfish (North), and Little Skate.

Finally, the listing of two stocks has changed from “not overfished” to “unknown” because recent assessments conclude that not enough information is available to make a valid conclusion regarding their status. Those stocks are Gulf of Alaska Eastern Walleye Pollock and Bering Sea/Aleutian Islands Bogoslof Walleye Pollock.

#### 2000 Determinations

The 2000 report identifies eight additional stocks for which overfishing is occurring: Middle Atlantic Yellowtail Flounder, Monkfish (separate stock), Gulf of Mexico Red Grouper, Gag, Vermilion Snapper; Yelloweye Rockfish, Tautog, and Winter Skate.

Thirty-seven additional stocks are identified as being overfished:

1. New England / Middle Atlantic Georges Bank Haddock, Southern New England Yellowtail Flounder, Middle Atlantic Yellowtail Flounder, Monkfish (separate stock), Spiny Dogfish, Winter Skate, Barndoor Skate, Thorny Skate, Smooth Skate.
2. South Atlantic Jewfish, Nassau Grouper, Vermilion Snapper, Red Porgy, Gag, Red Snapper, Speckled Hind, Snowy Grouper, Warsaw Grouper, Golden Tilefish, Yellowtail Snapper, Red Grouper, Black Grouper, Red Drum.
3. Gulf of Mexico King Mackerel, Red Snapper, Red Grouper, Nassau Grouper, Jewfish, Red Drum.
4. Caribbean Nassau Grouper, Jewfish, Queen Conch.
5. Pacific Chinook Salmon (Columbia River, Lewis River, Fall), Canary Rockfish, Cowcod
6. Atlantic Bigeye Tuna
7. Other Atlantic Sturgeon.

Three additional stocks are identified as approaching an overfished condition: *Loligo* Squid, Darkblotched Rockfish, and Widow Rockfish. Five stocks were listed as approaching an overfished condition in 1999, and Gulf of Mexico Gag and Northern Shrimp remain on the list. Sea Bass (Main

Hawaiian Islands) has been removed from the list because it is no longer approaching an overfished condition, Gulf of Mexico Vermillion Snapper is now listed as unknown, and Canary Rockfish is now listed as overfished.

For American Plaice, last year's status determination was based on an error contained in Amendment 9. This year's assessment is based on the correct value cited in the Overfishing Definition Review Panel Report, which concluded the stock is not overfished. In addition, the ambiguity of the three-column approach to listing overfished stocks led to *Loligo* Squid inadvertently being listed as overfished by the assessment panel. It should have been assessed as approaching an overfished condition and is listed correctly in this year's report.

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, 1999 AND 2000**

Jurisdiction	Year	Number of Stocks under Council's Geographical Area	Overfishing?				Overfished?				Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	Yes	No	Not Known	Not Defined	
NEFMC	1999	29	13	10	5	1	10	7	1	11	0
	2000	37	10	17	10	0	13	19	4	1	0
MAFMC	1999	11	6	5	0	0	6	4	0	1	0
	2000	11	6	5	0	0	5	3	1	1	1**
NEFMC/ MAFMC	1999	9	2	0	7	0	1	0	8	0	0
	2000	3	3	0	0	0	3	0	0	0	0
SAFMC	1999	86	15	11	59	1	0	1	2	83	0
	2000	89	13	21	55	0	14	2	67	6	0
GMFMC	1999	61	4	2	49	4	0	4	3	54	2*
	2000	57	4	14	39	0	5	5	40	6	1**
SAFMC/ GMFMC	1999	10	1	5	4	0	0	0	1	9	0
	2000	10	0	6	4	0	1	5	4	0	0
CFMC	1999	179	3	1	175	0	0	0	15	164	0
	2000	179	1	9	169	0	3	1	153	22	0
SAFMC/ GMFMC/ CFMC	1999	0	0	0	0	0	0	0	0	0	0
SAFMC/ GMFMC/ CFMC	2000	1	0	0	1	0	0	0	1	0	0
PFMC	1999	109	3	22	71	12	13	17	76	3	1*
	2000	112	3	35	70	4	14	22	72	2	2**
WPFMC	1999	64	0	12	3	49	1	47	15	0	1**
	2000	64	0	15	3	46	1	48	15	0	0
NPFMC	1999	252	0	77	170	5	3	30	219	0	0
	2000	244	0	73	166	5	2	31	211	0	0
PFMC/ NPFMC	1999	1	0	1	0	0	0	0	0	1	0
	2000	1	0	1	0	0	0	0	0	1	0

**Table 1. SUMMARY OF STOCKS BY COUNCIL AREA, 1999 AND 2000, CONTD.**

Jurisdiction	Year	Number of Stocks under Council's Geographical Area	Overfishing?				Overfished?				Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	Yes	No	Not Known	Not Defined	
HMS	1999	84	29	8	47	0	28	9	47	0	0
	2000	83	29	8	46	0	29	8	46	0	0
ASMFC	1999	7	1	4	2	0	2	2	2	0	1**
	2000	12	3	5	4	0	2	3	4	2	1**
GSMFC	1999	2	0	1	1	0	0	1	1	0	0
	2000	2	0	1	1	0	0	1	1	0	0
Total	1999	904	77	159 <sup>1</sup>	593	72	64	122 <sup>1</sup>	390	326	5
	2000	905	72	210	568	55	92	148 <sup>1</sup>	619	41	5

\* 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, 2000**

Jurisdiction	Stock Group	Number of Stocks	Landings (1,000 Pounds)	Overfishing?				Overfished?				Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	Yes	No	Not Known	Not Defined	
NEFMC	Major	32	346,453	9	15	8	0	10	19	2	1	0
	Minor	5	145	1	2	2	0	3	0	2	0	0
	Total	37	346,598	10	17	10	0	13	19	4	1	0
MAFMC	Major	11	241,536	6	5	0	0	5	3	1	1	1
	Minor	0	0	0	0	0	0	0	0	0	0	0
	Total	11	241,536	6	5	0	0	5	3	1	1	1
NEFMC / MAFMC	Major	3	56,539	3	0	0	0	3	0	0	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0
	Total	3	56,539	3	0	0	0	3	0	0	0	0
SAFMC	Major	26	50,738	9	10	7	0	8	2	15	1	0
	Minor	63	1,823	4	11	48	0	6	0	52	5	0
	Total	89	52,561	13	21	55	0	14	2	67	6	0
GMFMC	Major	22	275,584	4	7	11	0	3	5	12	1	1
	Minor	35	1,043	0	7	28	0	2	0	28	5	0
	Total	57	276,627	4	14	39	0	5	5	40	6	1
SAFMC / GMFMC	Major	9	44,247	0	6	3	0	1	5	3	0	0
	Minor	1	0	0	0	1	0	0	0	1	0	0
	Total	10	44,247	0	6	4	0	1	5	4	0	0
CFMC	Major	2	411	1	1	0	0	1	1	0	0	0
	Minor	177	974	0	8	169	0	2	0	153	22	0
	Total	179	1,385	1	9	169	0	3	1	153	22	0
SAFMC/ GMFMC/ CFMC	Major	1	1,183	0	0	1	0	0	0	1	0	0
SAFMC/ GMFMC/ CFMC	Minor	0	0	0	0	0	0	0	0	0	0	0
SAFMC/ GMFMC/ CFMC	Total	1	1,183	0	0	1	0	0	0	1	0	0

**TABLE 2. DESCRIPTION OF MAJOR AND MINOR STOCKS BY COUNCIL, 2000, CONTD.**

Jurisdiction	Stock Group	Number of Stocks	Landings (1,000 Pounds)	Overfishing?				Overfished?				Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	Yes	No	Not Known	Not Defined	
PFMC	Major	63	1,019,532	3	32	24	4	13	20	26	2	2
	Minor	49	2,375	0	3	46	0	1	2	46	0	0
	Total	112	1,021,907	3	35	70	4	14	22	72	2	2
WPFMC	Major	11	27,066	0	2	0	9	0	11	0	0	0
	Minor	53	783	0	13	3	37	1	37	15	0	0
	Total	64	27,849	0	15	3	46	1	48	15	0	0
NPFMC	Major	76	4,317,010	0	50	21	5	2	31	43	0	0
	Minor	168	1,215	0	23	145	0	0	0	168	0	0
	Total	244	4,318,225	0	73	166	5	2	31	211	0	0
PFMC / NPFMC	Major	1	81,099	0	1	0	0	0	0	0	1	0
	Minor	0	0	0	0	0	0	0	0	0	0	0
	Total	1	81,099	0	1	0	0	0	0	0	1	0
HMS	Major	18	36,103	9	5	4	0	9	5	4	0	0
	Minor	65	840	20	3	42	0	20	3	42	0	0
	Total	83	36,943	29	8	46	0	29	8	46	0	0
ASMFC	Major	10	891,868	3	4	3	0	1	3	3	2	1
	Minor	2	4	0	1	1	0	1	0	1	0	0
	Total	12	891,872	3	5	4	0	2	3	4	2	1
GSMFC	Major	2	1,283,521	0	1	1	0	0	1	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0
	Total	2	1,283,521	0	1	1	0	0	1	1	0	0
TOTAL	Major	287	8,672,890	47	139	83	18	56	106	111	9	5
	Minor	618	9,202	25	71	485	37	36	42	508	32	0
	Total	905	8,682,092	72	210	568	55	92	148	619	41	5

**Table 3. 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	<b>Atlantic Sea Scallop</b>	<b>Georges Bank</b>	NEFMC		No		No - rebuilding	No	continue rebuilding <sup>1</sup>	2/10-year plan
		<b>Middle Atlantic</b>	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding <sup>1</sup>	2/10-year plan
Atlantic Salmon	Atlantic Salmon		NEFMC		No		Yes	N/A	rebuild program	not required <sup>2</sup>
Northeast Multispecies	<b>Cod</b>	<b>Gulf of Maine</b>	NEFMC		Yes		No - rebuilding	Unknown <sup>3</sup>	reduce mortality continue rebuilding <sup>1</sup>	year 5 of plan*
		<b>Georges Bank</b>	NEFMC		No		No - rebuilding	No	continue rebuilding <sup>1</sup>	year 5 of plan*
Northeast Multispecies	<b>Haddock</b>	<b>Georges Bank</b>	NEFMC		No		Yes	N/A	rebuild program	year 5 of plan*
		<b>Gulf of Maine</b>	NEFMC		No <sup>4</sup>		Yes	N/A	rebuild program	not submitted
Northeast Multispecies	<b>American Plaice</b>		NEFMC		Yes		No <sup>5</sup>	No	reduce mortality	N/A
Northeast Multispecies	<b>Redfish</b>		NEFMC		No		Unknown	Unknown	N/A	N/A
Northeast Multispecies	<b>Witch Flounder</b>		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	<b>Yellowtail Flounder</b>	<b>Georges Bank</b>	NEFMC		No		No	No	N/A	N/A
		<b>Southern New England</b>	NEFMC		No		Yes	N/A	rebuild program	year 5 of plan*
		<b>Cape Cod</b>	NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding <sup>1</sup>	not submitted <sup>6</sup>
		<b>Middle Atlantic</b>	NEFMC		Yes		Yes	N/A	reduce mortality rebuild program	not submitted
Northeast Multispecies	<b>White Hake</b>		NEFMC		Yes		No - rebuilding	No	reduce mortality continue rebuilding <sup>1</sup>	unspecified <sup>7</sup>
Northeast Multispecies	<b>Pollock</b>		NEFMC		Unknown		Unknown	Unknown	N/A	N/A
Northeast Multispecies	<b>Windowpane Flounder</b>	<b>Gulf of Maine / Georges Bank</b>	NEFMC		No		No	No	N/A	N/A
		<b>Southern New England / Middle Atlantic</b>	NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	<b>Winter Flounder</b>	<b>Georges Bank</b>	NEFMC		No		No - rebuilding	No	continue rebuilding <sup>1</sup>	unspecified <sup>7</sup>
		<b>Gulf of Maine</b>	NEFMC	Unknown		Undefined		Unknown	N/A	N/A
		<b>Southern New England</b>	NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	<b>Silver Hake</b>	<b>Gulf of Maine / Northern Georges Bank</b>	NEFMC		Yes		No - rebuilding	Unknown <sup>3</sup>	reduce mortality continue rebuilding <sup>1</sup>	2/10-year plan
		<b>Southern Georges Bank / Middle Atlantic</b>	NEFMC		Yes		Yes	N/A	reduce mortality rebuild program	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			
Northeast Multispecies	Offshore Hake		NEFMC		Unknown		Unknown	Unknown	N/A	N/A
Northeast Multispecies	<b>Red Hake</b>	<b>Southern Georges Bank / Middle Atlantic</b>	NEFMC		Unknown		Yes	N/A	rebuild program	2/10-year plan
		<b>Gulf of Maine / Northern Georges Bank</b>	NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	Ocean Pout		NEFMC		No		Yes	N/A	rebuild program	not submitted
Northeast Multispecies	Atlantic Halibut		NEFMC		Yes		Yes	N/A	reduce mortality rebuild program	year 2 of plan*
Atlantic Herring	<b>Atlantic Herring</b>		NEFMC		No		No	No	N/A	N/A
Monkfish	<b>Monkfish (North)</b>		NEFMC / MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	2/10-year plan
Monkfish	<b>Monkfish (South)</b>		NEFMC / MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	2/10-year plan
Spiny Dogfish	<b>Spiny Dogfish</b>		NEFMC / MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	1/5-year plan
Summer Flounder, Scup, and Black Sea Bass	<b>Scup</b>		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	disapproved
Summer Flounder, Scup, and Black Sea Bass	<b>Summer Flounder</b>		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	6/10-year plan
Summer Flounder, Scup, and Black Sea Bass	<b>Black Sea Bass</b>		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	5/10-year plan
Atlantic Bluefish	<b>Bluefish (except Gulf of Mexico)</b>		MAFMC		Yes		Yes	N/A	reduce mortality rebuild program	2/9-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 Surfclam and Ocean Quahog	<b>Surfclam</b>		MAFMC	No		Undefined		Unknown	N/A	N/A
Atlantic Surfclam and Ocean Quahog	<b>Ocean Quahog</b>		MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	<b>Squid</b>	<i>Illex</i>	MAFMC		No		Unknown	Unknown	N/A	N/A
		<i>Loligo</i>	MAFMC		Yes		No <sup>8</sup>	Yes	reduce mortality	N/A
Atlantic Mackerel, Squid, and Butterfish	<b>Atlantic Mackerel</b>		MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	<b>Butterfish (Atlantic)</b>		MAFMC		No		No	No	N/A	N/A
South Atlantic Golden Crab	<b>Golden Crab</b>		SAFMC		No	Undefined		Unknown	N/A	N/A
South Atlantic Shrimp	<b>White Shrimp</b>		SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Shrimp	<b>Rock Shrimp</b>		SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Shrimp	<b>Brown Shrimp</b>		SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Shrimp	<b>Pink Shrimp</b>		SAFMC	No			Unknown	Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Jewfish		SAFMC		No <sup>9</sup>	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	Nassau Grouper		SAFMC		No <sup>9</sup>	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	<b>Vermilion Snapper</b>		SAFMC		Yes	Yes		N/A	rebuild program**	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			
South Atlantic Snapper-Grouper	Red Porgy	SAFMC		Yes		Yes	N/A	rebuild program**	1/18-year plan
South Atlantic Snapper-Grouper	<b>Gag</b>	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	<b>Red Snapper</b>	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	Speckled Hind	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	<b>Snowy Grouper</b>	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	Warsaw Grouper	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	<b>Golden Tilefish</b>	SAFMC		Yes	Yes		N/A	rebuild program**	9/15-year plan
South Atlantic Snapper-Grouper	<b>Yellowtail Snapper</b>	SAFMC		Yes	Yes		N/A	rebuild program**	9/10year-plan
South Atlantic Snapper-Grouper	<b>Red Grouper</b>	SAFMC		Yes	Yes		N/A	rebuild program**	10/15-year plan
South Atlantic Snapper-Grouper	Black Grouper	SAFMC		Yes	Yes		N/A	rebuild program**	1/15-year plan
South Atlantic Snapper-Grouper	<b>Black Sea Bass</b>	SAFMC		Yes		No - rebuilding	No	continue rebuilding**1	1/10-year plan
South Atlantic Snapper-Grouper	<b>Mutton Snapper</b>	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	Wreckfish	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	Scamp	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	<b>White Grunt</b>	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	<b>Greater Amberjack</b>	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	<b>Gray (Mangrove) Snapper</b>	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	<b>Gray Triggerfish</b>	SAFMC		No	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellowedge Grouper	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	<b>Blue Runner</b>	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	<b>Crevalle Jack</b>	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Bar Jack	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	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
South Atlantic Snapper-Grouper	<b>Spadefish</b>	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

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	<b>Blue Stripe Grunt</b>	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
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

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	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
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	<b>Sheepshead</b>	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

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	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
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	<b>Red Drum</b>	SAFMC		Yes <sup>9</sup>	Yes		N/A	rebuild program**	year 10 of plan*
South Atlantic Corals <sup>10</sup>	Fire Corals	SAFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
South Atlantic Corals <sup>10</sup>	Hydrocorals	SAFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
South Atlantic Corals <sup>10</sup>	Octocorals	SAFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
South Atlantic Corals <sup>10</sup>	Stony Corals	SAFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
South Atlantic Corals <sup>10</sup>	Black Corals	SAFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico Stone Crab	<b>Stone Crab</b>	GMFMC		No	No		No	N/A	N/A
Gulf of Mexico Shrimp	<b>Brown Shrimp</b>	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	<b>Pink Shrimp</b>		GMFMC	No		No		No	N/A	N/A
Gulf of Mexico Shrimp	<b>White Shrimp</b>		GMFMC	No		No		No	N/A	N/A
Gulf of Mexico Shrimp	<b>Royal Red Shrimp</b>		GMFMC	No		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals <sup>11</sup>	Fire Corals		GMFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals <sup>11</sup>	Hydrocorals		GMFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals <sup>11</sup>	Octocorals		GMFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals <sup>11</sup>	Stony Corals		GMFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals <sup>11</sup>	Black Corals		GMFMC	No <sup>9</sup>		Undefined		Unknown	N/A	N/A
Gulf of Mexico / South Atlantic Spiny Lobster	<b>Spiny Lobster</b>		SAFMC / GMFMC		No	No		No	N/A	N/A
Gulf of Mexico / South Atlantic Spiny Lobster	Slipper Lobster		SAFMC / GMFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	King Mackerel	<b>Gulf Group</b>	SAFMC / GMFMC		No	Yes		N/A	rebuild program**	year 15 of plan*
		<b>Atlantic Group</b>	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	Spanish Mackerel	<b>Gulf Group</b>	SAFMC / GMFMC		No	No		No	N/A	N/A
		<b>Atlantic Group</b>	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	<b>Dolphin</b>		SAFMC / GMFMC		No	No		No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	<b>Cobia</b>		SAFMC/ GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	<b>Cero</b>		SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	<b>Little Tunny</b>		SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	<b>Bluefish (Gulf of Mexico only)</b>		GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	<b>Red Snapper</b>		GMFMC	Yes		Yes		N/A	rebuild program**	10/29-year plan
Reef Fish Resources of the Gulf of Mexico	<b>Red Grouper</b>		GMFMC		Yes		Yes	N/A	rebuild program	not submitted
Reef Fish Resources of the Gulf of Mexico	Nassau Grouper		GMFMC		No <sup>9</sup>	Yes		N/A	rebuild program**	year 3 of plan*
Reef Fish Resources of the Gulf of Mexico	Jewfish		GMFMC		No <sup>9</sup>	Yes		N/A	rebuild program**	year 10 of 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			
Reef Fish Resources of the Gulf of Mexico	<b>Gag</b>	GMFMC		Yes	No		Yes	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	<b>Vermilion Snapper</b>	GMFMC		Yes	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	<b>Greater Amberjack</b>	GMFMC		No	No		Unknown <sup>3</sup>	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	<b>Gray Triggerfish</b>	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	<b>Mutton Snapper</b>	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	<b>Gray (Mangrove) Snapper</b>	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	Dog Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
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	<b>Lane Snapper</b>	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	<b>Yellowtail Snapper</b>	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	<b>Blackline Tilefish</b>	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

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	<b>Yellowedge Grouper</b>	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
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	<b>Black Grouper</b>	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	<b>Red Drum</b>	GMFMC		No <sup>9</sup>	Yes		N/A	rebuild program**	year 10 of 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			
Caribbean Spiny Lobster <sup>13</sup>	<b>Spiny Lobster</b>	CFMC	No		No		No	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Nassau Grouper	CFMC	No <sup>9</sup>		Yes		N/A	rebuild program**	year 10 of plan*
Caribbean Reef Fish <sup>14</sup>	Jewfish	CFMC	No <sup>9</sup>		Yes		N/A	rebuild program**	year 7 of plan*
Caribbean Reef Fish <sup>14</sup>	Ocean Surgeonfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Doctorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blue Tang	CFMC	Unknown	..	Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Frogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Flamefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Conchfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Trumpetfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Scrawled Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Queen Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Whitespotted Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Ocean Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Black Durgon	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sargassum Triggerfish	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 <sup>14</sup>	Redlip Blenny	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Peacock Flounder	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellow Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blue Runner	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Horse-eye Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Black Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Bar Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Greater Amberjack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Almaco Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Longsnout Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Foureye Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Spotfin Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Banded Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Redspotted Hawkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Flying Gurnard	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Atlantic Spadefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Neon Goby	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 <sup>14</sup>	Rusty Goby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Royal Gramma	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Porkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Margate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Tomtate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	French Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	White Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Bluestriped Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Longspine Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blackbar Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Cardinal Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Spanish Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Creole Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowcheek Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowhead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Clown Wrasse	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 <sup>14</sup>	<b>    </b> Puddingwife	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Pearly Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Green Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Bluehead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Black Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Queen Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Mutton Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Schoolmaster	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blackfin Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Gray Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Dog Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Mahogany Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Lane Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Silk Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowtail Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Wenchman	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 <sup>14</sup>	Vermilion Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blackline Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sand Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellow Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Spotted Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Chain Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Green Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Goldentail Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Batfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Goldspotted Eel	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowhead Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Dusky Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Spotted Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Honeycomb Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Scrawled Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Smooth Trunkfish	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 <sup>14</sup>	Cherubfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Queen Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Rock Beauty	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Gray Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	French Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sergeant Major	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blue Chromis	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sunshinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowtail Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Dusky Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Beaugregory	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Bicolor Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Threespot Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Bigeye	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Glasseye Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Midnight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Blue 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 <sup>14</sup>	Striped Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Rainbow Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Princess Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Queen Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Redband Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Redtail Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Redfin Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Stoplight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	High-hat	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Jackknife-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Spotted Drum	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Scorpionfishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Rock Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Graysby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowedge Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Coney	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Red Hind	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 <sup>14</sup>	Red Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Misty Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Butter Hamlet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Swissguard Basslet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Yellowfin Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Tiger Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Creole-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Greater Soapfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Orangeback Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Lantern Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Tobaccofish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Harlequin Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Chalk Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Caribbean Tonguefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sea Bream	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Jolthead Porgy	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sheepshead Porgy	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 <sup>14</sup>	Pluma	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Seahorses	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Pipefishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sand Diver	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Sharpnose Puffer	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish <sup>14</sup>	Porcupinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	<b>Queen Conch</b>	CFMC	Yes		Yes		N/A	rebuild program	year 4 of plan*
Caribbean Queen Conch <sup>15</sup>	Atlantic Triton's Trumpet	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Cameo Helmet	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Caribbean Helmet	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Caribbean Vase	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Flame Helmet	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Green Star Shell	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Hawkwing Conch	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Milk Conch	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Roostertail Conch	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	True Tulip	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		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 <sup>15</sup>	West Indian Fighting Conch	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Queen Conch <sup>15</sup>	Whelk (West Indian Top Shell)	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Hydrocorals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Soft Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Gorgonian Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Hard Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Black Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	False Corals	CFMC	No		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Sponges	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Hydroids	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Colonial Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Annelid Worms	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Other Gastropods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Bivalves	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Cephalopods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	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 <sup>16</sup>	Bryozoans	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Feather Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Sea Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Brittle and Basket Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Sea Urchins	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Sea Cucumbers	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Tunicates	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Green Algae	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Red Algae	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Caribbean Corals <sup>16</sup>	Seagrasses	CFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
WA, OR, CA Salmon	<b>Chinook Salmon (Columbia River, upriver Summer)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Columbia River, upriver Spring)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Columbia River, Snake River, Spring)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Columbia River, Lewis River, Fall)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Skagit River, Spring)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>

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	<b>Chinook Salmon (Skagit River, Summer / Fall)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Stillaguamish River, Summer / Fall)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Lake Washington)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Chinook Salmon (Dungeness River)</b>	PFMC	No <sup>17</sup>		Yes		N/A	rebuild program- ESA listed	not required <sup>2</sup>
WA, OR, CA Salmon	<b>Coho Salmon (Strait of Juan de Fuca)</b>	PFMC	Undefined		No		No	N/A	N/A
WA, OR, CA Salmon	<b>Chinook Salmon (Snohomish River, Summer / Fall)</b>	PFMC	Undefined		No		No	N/A	N/A
WA, OR, CA Salmon	<b>other Chinook Salmon stocks</b>	PFMC	Undefined		No		No	N/A	N/A
WA, OR, CA Salmon	<b>other Coho Salmon stocks</b>	PFMC	Undefined		No		No	N/A	N/A
WA, OR, CA Salmon	Sockeye Salmon	PFMC	No <sup>18</sup>		No <sup>18</sup>		Unknown	N/A	N/A
WA, OR, CA Salmon	<b>Pink Salmon</b>	PFMC	No <sup>18</sup>		No <sup>18</sup>		Unknown	N/A	N/A
WA, OR, CA Salmon	<b>Chum Salmon</b>	PFMC	No <sup>18</sup>		No <sup>18</sup>		Unknown	N/A	N/A
WA, OR, CA Salmon	Steelhead	PFMC	Unknown <sup>19</sup>		Unknown <sup>19</sup>		Unknown	N/A	N/A
Coastal Pelagic Species	<b>Pacific (Chub) Mackerel</b>	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	<b>Pacific Sardine</b>	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	<b>Jack Mackerel</b>	PFMC		No	Undefined		Unknown	N/A	N/A
Coastal Pelagic Species	<b>Northern Anchovy (Central subpopulation)</b>	PFMC		No	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			
Coastal Pelagic Species	<b>Northern Anchovy (Northern subpopulation)</b>	PFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Coastal Pelagic Species	<b>Market Squid</b>	PFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Lingcod</b>	PFMC		No		Yes	N/A	rebuild program	1/10-year plan
WA, OR, CA Groundfish	<b>Pacific Ocean Perch</b>	PFMC		No		Yes	N/A	rebuild program	1/47-year plan
WA, OR, CA Groundfish	<b>Bocaccio</b>	PFMC		No		Yes	N/A	rebuild program	1/38-year plan
WA, OR, CA Groundfish	<b>Canary Rockfish</b>	PFMC		No		Yes <sup>20</sup>	N/A	rebuild program	plan under development
WA, OR, CA Groundfish	Cowcod	PFMC		No		Yes <sup>20</sup>	N/A	rebuild program	plan under development
WA, OR, CA Groundfish	<b>Darkblotched Rockfish</b>	PFMC		Yes		No	Yes	reduce mortality	N/A
WA, OR, CA Groundfish	<b>Silvergrey Rockfish</b>	PFMC		Yes		Unknown	Unknown	reduce mortality	N/A
WA, OR, CA Groundfish	<b>Yelloweye Rockfish</b>	PFMC		Yes		Unknown	Unknown	reduce mortality	N/A
WA, OR, CA Groundfish	<b>Widow Rockfish</b>	PFMC		No		No	Yes	N/A	N/A
WA, OR, CA Groundfish	<b>Bank Rockfish</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Shortspine Thornyhead</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Longspine Thornyhead</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Yellowtail Rockfish</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Pacific Whiting</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Sablefish</b>	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	<b>Dover Sole</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>English Sole</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Petrale Sole</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Chilipepper Rockfish</b>	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	<b>Arrowtooth Flounder</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Black Rockfish (North)</b>	PFMC		No		No	No	N/A	N/A
WA, OR, CA Groundfish	<b>Pacific Cod</b>	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	<b>Pacific Sanddab</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Rex Sole</b>	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	<b>Sand Sole</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Starry Flounder</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Aurora 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	Black-and-Yellow Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Blackgill Rockfish</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Blue Rockfish</b>	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	<b>Copper Rockfish</b>	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	<b>Greenstriped Rockfish</b>	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

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	Kelp Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	Mexican Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
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	<b>Redstripe Rockfish</b>	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	<b>Sharpchin Rockfish</b>	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	<b>Splitnose Rockfish</b>	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

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	Tiger Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Vermilion Rockfish</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
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	<b>Spiny Dogfish</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Big Skate</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>California Skate</b>	PFMC		Unknown		Unknown	Unknown	N/A	N/A
WA, OR, CA Groundfish	<b>Longnose Skate</b>	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

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	<b>Spiny Lobster (2 species)</b>	WPFMC	No		No		Unknown <sup>3</sup>	N/A	N/A
Western Pacific Crustaceans	Slipper Lobster	WPFMC	No		No		Unknown <sup>3</sup>	N/A	N/A
Western Pacific Crustaceans	Kona Crab	WPFMC	Unknown <sup>12</sup>		Unknown <sup>12</sup>		Unknown	N/A	N/A
Western Pacific Corals <sup>21</sup>	Pink Corals (3 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals <sup>21</sup>	Gold Corals (4 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals <sup>21</sup>	Bamboo Corals (2 species)	WPFMC		No		No	No	N/A	N/A
Western Pacific Corals <sup>21</sup>	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	rebuild program**	15/19-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

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	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
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	<b>Pink Snapper</b>	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

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	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
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

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 Pelagics	<b>Yellowfin Tuna (Central Western Pacific)</b>		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	<b>Albacore (South Pacific)</b>		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	<b>Albacore (North Pacific)</b>		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	<b>Yellowfin Tuna (Eastern Tropical Pacific)</b>		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	<b>Skipjack Tuna (Central Western Pacific)</b>		WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	<b>Skipjack Tuna (Eastern Tropical Pacific)</b>		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 <sup>3</sup>	N/A	N/A
Western Pacific Pelagics	<b>Bigeye Tuna (Pacific)</b>		WPFMC	Undefined		No		Unknown <sup>3</sup>	N/A	N/A
Western Pacific Pelagics	Other tuna relatives	<u>Auxis spp.</u>	WPFMC	Undefined		No		Unknown <sup>3</sup>	N/A	N/A
		<u>Scomber spp.</u>	WPFMC	Undefined		No		Unknown <sup>3</sup>	N/A	N/A
		<u>Allothunnus spp.</u>	WPFMC	Undefined		No		Unknown <sup>3</sup>	N/A	N/A
Western Pacific Pelagics	<b>Swordfish (Pacific)</b>		WPFMC	Undefined		No		Unknown <sup>3</sup>	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

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 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
Western Pacific Pelagics	Escolar	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Western / Central Walleye Pollock</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Pacific Cod</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Sablefish</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Shortspine Thornyhead</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Arrowtooth Flounder</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Western Pacific Ocean Perch</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Central Pacific Ocean Perch</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Eastern Pacific Ocean Perch</b>	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	<b>Eastern Walleye Pollock</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Atka Mackerel</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Alaska Plaice</b>	NPFMC		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			
Gulf of Alaska Groundfish	<b>Butter Sole</b>	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	<b>Dover Sole</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>English Sole</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Flathead Sole</b>	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	<b>Rex Sole</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Northern Rock Sole</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Southern Rock Sole</b>	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	<b>Starry Flounder</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Yellowfin Sole</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Dusky Rockfish</b>	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

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	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	<b>Harlequin Rockfish</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Northern Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
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	<b>Sharpchin Rockfish</b>	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	<b>Shortraker Rockfish</b>	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

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	C-O Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Curlfin Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Hybrid Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longhead Dab	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Pacific Sanddab	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Petrale Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Roughscale Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Slender Sole	NPFMC		Unknown <sup>22</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Black Rockfish</b>	NPFMC		Unknown <sup>23</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blue Rockfish	NPFMC		Unknown <sup>23</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Widow Rockfish	NPFMC		Unknown <sup>23</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowtail Rockfish	NPFMC		Unknown <sup>23</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Canary Rockfish	NPFMC		Unknown <sup>24</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	China Rockfish	NPFMC		Unknown <sup>24</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Copper Rockfish	NPFMC		Unknown <sup>24</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Quillback Rockfish	NPFMC		Unknown <sup>24</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Rosethorn Rockfish	NPFMC		Unknown <sup>24</sup>		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	Tiger Rockfish	NPFMC		Unknown <sup>24</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Broad Banded Thornyhead	NPFMC		Unknown <sup>25</sup>		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longspine Thornyhead	NPFMC		Unknown <sup>25</sup>		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
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	Big Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Flathead 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	Roughtail Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sandpaper Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Starry Skate	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	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
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>Opisthoteuthis californica</u>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Squid <u>Berryteuthis magister</u></b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	<b>Squid <u>Onychoteuthis borealijaponicus</u></b>	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			
Alaska High Seas Salmon	<b>Pink Salmon</b>		NPFMC	Undefined		No		No	N/A	N/A
Alaska High Seas Salmon	<b>Sockeye Salmon</b>		NPFMC	Undefined		No		No	N/A	N/A
Alaska High Seas Salmon	<b>Chum Salmon</b>		NPFMC	Undefined		No		No	N/A	N/A
Alaska High Seas Salmon	<b>Coho Salmon</b>		NPFMC	Undefined		No		No	N/A	N/A
Alaska High Seas Salmon	<b>Chinook Salmon</b>		NPFMC	Undefined		No		No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Walleye Pollock</b>	<b>Eastern Bering Sea</b>	NPFMC		No		No	No	N/A	N/A
		<b>Aleutian Islands</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
		<b>Bogoslof</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Pacific Cod</b>		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Yellowfin Sole</b>		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Greenland Turbot</b>		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Arrowtooth Flounder</b>		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Rock Sole</b>		NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Flathead Sole</b>		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	<b>Eastern Bering Sea Sablefish</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Aleutian Islands Sablefish</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Eastern Bering Sea Pacific Ocean Perch</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Aleutian Islands Pacific Ocean Perch</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Atka Mackerel</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Alaska Plaice</b>	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Squid <u>Beryteuthis magister</u></b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Squid <u>Onychoteuthis borealijaponicus</u></b>	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	<b>Shortspine Thornyhead</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aleutian Islands Northern Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bering Flounder	NPFMC		Unknown <sup>26</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Kamchatka Flounder	NPFMC		Unknown <sup>27</sup>		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	Aleutian Islands Sharpchin Rockfish	NPFMC		Unknown <sup>28</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aleutian Islands Shortraker Rockfish	NPFMC		Unknown <sup>29</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aleutian Islands Rougheye Rockfish	NPFMC		Unknown <sup>29</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Eastern Bering Sea Northern Rockfish	NPFMC		Unknown <sup>30</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Eastern Bering Sea Sharpchin Rockfish	NPFMC		Unknown <sup>30</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Eastern Bering Sea Shortraker Rockfish	NPFMC		Unknown <sup>30</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Eastern Bering Sea Rougheye Rockfish	NPFMC		Unknown <sup>30</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Arctic Flounder	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Butter Sole</b>	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	C-O Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	California Tonguefish	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Curlfin Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Sole	NPFMC		Unknown <sup>31</sup>		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	<b>Dover Sole</b>	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	English Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Hybrid Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longhead Dab	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Sanddab	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Petrale Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Rex Sole</b>	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Roughscale Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sand Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Slender Sole	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Starry Flounder</b>	NPFMC		Unknown <sup>31</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aurora Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Black Rockfish	NPFMC		Unknown <sup>32</sup>		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	Blackgill Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blue Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bocaccio	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Brown Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Canary Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Chameleon Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Chilipepper	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Copper Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Darkblotched Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	<b>Dusky Rockfish</b>	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Gray Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Greenstriped Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Harlequin Rockfish	NPFMC		Unknown <sup>32</sup>		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	Pink Rose Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pygmy Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Redbanded Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Redstripe Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Rosethorn Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Rosy Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Silvergrey Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Splitnose Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Stripetail Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Tiger Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Vermilion Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Widow Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yelloweye Rockfish	NPFMC		Unknown <sup>32</sup>		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	Yellowmouth Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellowtail Rockfish	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Broad Banded Thornyhead	NPFMC		Unknown <sup>32</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Antlered Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Armorhead Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bigmouth Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blackfin Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blob Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Brown Irish Lord	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Butterfly Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Calico Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Crested Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Dusky Sculpin	NPFMC		Unknown <sup>33</sup>		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	Great Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Staghorn Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Plain Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Red Irish Lord	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Ribbed Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Scissortail Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Shorthorn Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Spinyhead Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Tadpole Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Thorny Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Warty Sculpin	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellow Irish Lord	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Alaska Skate	NPFMC		Unknown <sup>33</sup>		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	Aleutian Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Big Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Commander Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Golden Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longnose Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Mud Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Okhotsk Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Roughtail Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sandpiper Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Starry Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	White-Blotched Skate	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Whitebrow Skate	NPFMC		Unknown <sup>33</sup>		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	Blue Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Pacific Sleeper Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Salmon Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Sixgill Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Soupin Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Spiny Dogfish Shark	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Octopus <u>Octopus dofleini</u>	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands Groundfish	Octopus <u>Opisthoteuthis californica</u>	NPFMC		Unknown <sup>33</sup>		Unknown	Unknown	N/A	N/A	
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Blue King Crab</b>	<b>Pribilof Islands</b>	NPFMC		No		No	Unknown <sup>3</sup>	N/A	N/A
		<b>Saint Matthews Island</b>	NPFMC		No		Yes	N/A	rebuild program	under Secretarial review
		<b>Saint Lawrence Island</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Golden King Crab</b>	<b>Aleutian Islands</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Pribilof Islands</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Northern District</b>	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			
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Red King Crab</b>	<b>Bristol Bay</b>	NPFMC		No		No	No	N/A	N/A
		<b>Norton Sound</b>	NPFMC		No		Unknown	Unknown	N/A	N/A
		<b>Pribilof Islands</b>	NPFMC		No		No	Unknown <sup>3</sup>	N/A	N/A
		<b>Aleutian Islands</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Aleutian Islands Scarlet King Crab</b>		NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Bering Sea Snow Crab</b>		NPFMC		No		No - rebuilding	No	continue rebuilding <sup>1</sup>	under Secretarial review
Bering Sea / Aleutian Islands King and Tanner Crabs	<b>Tanner Crab</b>	<b>Bering Sea</b>	NPFMC		No		Yes	N/A	rebuild program	1/10-year plan
		<b>Bering Sea Triangle</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Bering Sea Grooved</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Eastern Aleutian Islands</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Eastern Aleutian Islands Triangle</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Eastern Aleutian Islands Grooved</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Adak (Western Aleutians)</b>	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
		<b>Western Aleutian Islands Grooved</b>	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			
Alaska Scallops	<b>Alaska Scallops</b>	NPFMC		No		No	No	N/A	N/A
Atlantic Billfishes	Blue Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented <sup>34</sup>
Atlantic Billfishes	White Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented <sup>34</sup>
Atlantic Billfishes	Sailfish (West Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented <sup>34</sup>
Atlantic Billfishes	Spearfish (West Atlantic)	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	<b>Bigeye Tuna (Atlantic)</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	not implemented <sup>34</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Albacore (North Atlantic)</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	Preferred alternative discussed in draft EA for swordfish
Atlantic Tunas, Swordfish and Sharks	<b>Bluefin Tuna (West Atlantic)</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	3/20-year plan <sup>35</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Swordfish (North Atlantic)</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	2/10-year plan <sup>36</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Sandbar Shark</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Blacktip Shark</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>

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	<b>Dusky Shark</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Spinner Shark</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Silky Shark</b>	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Bull Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Bignose Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Narrowtooth Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Galapagos Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Night Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Caribbean Reef Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	39-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Lemon Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Bigeye Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>

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	Nurse Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Scalloped Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Great Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Smooth Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Whale Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	Basking Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	White Shark	HMS		Yes		Yes	N/A	reduce mortality rebuild program	30-year plan <sup>37</sup>
Atlantic Tunas, Swordfish and Sharks	<b>Yellowfin Tuna (West Atlantic)</b>	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	<b>Atlantic Sharpnose Shark</b>	HMS		No		No	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	<b>Finetooth Shark</b>	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	<b>Blacknose Shark</b>	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smalltail 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	<b>Bonnethead Shark</b>	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Atlantic Angel Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	<b>Skipjack Tuna (West Atlantic)</b>	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	<b>Shortfin Mako Shark</b>	HMS		Unknown		Unknown	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	Porbeagle 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	<b>Blue Shark</b>	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

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	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
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

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	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
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

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	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
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; no timeline defined.

\*\* Pre-SFA Rebuilding Plan

1. This stock is currently above the minimum stock size threshold; however, it was previously below
2. A formal rebuilding program was not required or submitted because either no fishing is allowed in
3. While the biomass level is known, determining whether the stock is approaching an overfished
4. Three year F proxy (0.247) is below the mortality threshold @  $B_{MSY}$ .
5. The value for the biomass threshold used was that listed by the Overfishing Definition Review
6. The 1999 Report to Congress indicated in error that these stocks had a rebuilding program.
7. There is no specific rebuilding plan for this stock, but rebuilding is being accomplished through the
8. Last year's listing of overfished was in error. This was due to a misinterpretation by the assessment
9. Fishery in the EEZ is closed.
10. The full name for this FMP is the Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic

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			

11. The full name for this FMP is the Coral and Coral Reefs of the Gulf of Mexico.
12. There is no overfishing definition contained in the FMP, and no definition for determining the overfished status
13. The full name for this FMP is the Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands.
14. The full name for this FMP is the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands.
15. The full name for this FMP is the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.
16. The full name for this FMP is the Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin
17. Although there is no overfishing definition, allowable catches are extremely limited in
18. Used assessment from Our Living Oceans; the overfishing definition contained in the FMP does not apply
19. The overfishing definition contained in the FMP does not apply because there are no escapement goals or
20. The Pacific Fishery Management Council was notified on January 10, 2000 that this species is
21. The full name for this FMP is the Precious Corals Fishery of the Western Pacific Region.
22. The fishing mortality rate determination for this species complex (Shallow Water Flatfish complex) is “not
23. 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.
24. 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
25. 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
26. 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.
27. 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
28. The fishing mortality rate determination for this species complex (Aleutian Islands Sharpchin / Northern Rockfish complex) is “not overfished” based on Northern Rockfish; no fishing mortality rate determination can be
29. The fishing mortality rate determination for this species complex (Aleutian Islands Shortraker / Rougheye Rockfish complex) is “not overfished” based on abundance estimates of the complex; no fishing mortality rate
30. The fishing mortality rate determination for this species complex (Eastern Bering Sea Other Red Rockfish complex) is “not overfished” based on abundance estimates of the complex; no fishing mortality rate determination
31. 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.
32. 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

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			

33. 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
34. Preferred alternative for rebuilding established in 1999 HMS FMP; a total allowable catch was adopted by ICCAT in November 2000.
35. International rebuilding program implemented in 1999.
36. International rebuilding program implemented in 2000.
37. NMFS is unable to implement rebuilding measures under a court-approved settlement that prevents the commercial quota reduction until a peer review is completed.

\* Pre-SFA rebuilding plan; no timeline defined.

\*\* Pre-SFA Rebuilding Plan

1. This stock is currently above the minimum stock size threshold; however, it was previously below this level and a rebuilding program is still required.
2. 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. Recovery plans under the ESA are being developed.
3. 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.
4. Three year F proxy (0.247) is below the mortality threshold @  $B_{MSY}$ .
5. The value for the biomass threshold used was that listed by the Overfishing Definition Review Panel. The value contained in Amendment 9 is an error and last year's listing of Overfished was incorrect.
6. The 1999 Report to Congress indicated in error that these stocks had a rebuilding program.
7. There is no specific rebuilding plan for this stock, but rebuilding is being accomplished through the Groundfish Rebuilding Program.
8. Last year's listing of overfished was in error. This was due to a misinterpretation by the assessment panel regarding "overfished" or "approaching an overfished condition;" no distinction was made between the two, and thus, the stock was listed as overfished when it should have been listed as approaching.
9. Fishery in the EEZ is closed.
10. The full name for this FMP is the Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic Region.
11. The full name for this FMP is the Coral and Coral Reefs of the Gulf of Mexico.
12. There is no overfishing definition contained in the FMP, and no definition for determining the overfished status in Our Living Oceans.
13. The full name for this FMP is the Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands.
14. The full name for this FMP is the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands.

15. The full name for this FMP is the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.
16. The full name for this FMP is the Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin Islands.
17. Although there is no overfishing definition, allowable catches are extremely limited in conformance with their listings under the Endangered Species Act (ESA), therefore, overfishing is not occurring for this stock.
18. Used assessment from Our Living Oceans; the overfishing definition contained in the FMP does not apply because there are no escapement goals or management objectives for this species.
19. The overfishing definition contained in the FMP does not apply because there are no escapement goals or management objectives for this species, and there is no definition for determining the overfished status in Our Living Oceans.
20. The Pacific Fishery Management Council was notified on January 10, 2000 that this species is overfished and the Council is required to submit a rebuilding program within one year of that date.
21. The full name for this FMP is the Precious Corals Fishery of the Western Pacific Region.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.

27. 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.
28. The fishing mortality rate determination for this species complex (Aleutian Islands Sharpchin / Northern Rockfish complex) is “not overfished” based on Northern Rockfish; no fishing mortality rate determination can be made about the other species.
29. The fishing mortality rate determination for this species complex (Aleutian Islands 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.
30. The fishing mortality rate determination for this species complex (Eastern Bering Sea Other Red Rockfish complex) is “not overfished” based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.
31. 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.
32. 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.
33. 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.
34. Preferred alternative for rebuilding established in 1999 HMS FMP; a total allowable catch was adopted by ICCAT in November 2000.
35. International rebuilding program implemented in 1999.
36. International rebuilding program implemented in 2000.
37. NMFS is unable to implement rebuilding measures under a court-approved settlement that prevents the commercial quota reduction until a peer review is completed.

**Table 4. 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	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
South Atlantic Golden Crab	Jonah Crab	SAFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Gulf of Mexico Shrimp	<b>Rock Shrimp</b>	GMFMC	Unknown <sup>2</sup>	Unknown <sup>2</sup>	Unknown
Gulf of Mexico Shrimp	<b>Seabob Shrimp</b>	GMFMC	Unknown <sup>2</sup>	Unknown <sup>2</sup>	Unknown

1. There is no overfishing definition contained in the FMP, and no definition for determining the overfished status in Our Living Oceans.
2. There is no overfishing definition contained in the FMP; the definition for determining the overfished status is based on the definition in Our Living Oceans.

**Table 5. 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 <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>American Lobster</b>	ASMFC	Yes	Undefined	Unknown
<b>Atlantic Croaker</b>	ASMFC	Yes <sup>2</sup>	Yes <sup>2</sup>	N/A
<b>Atlantic Menhaden</b>	ASMFC	No <sup>2</sup>	No <sup>2</sup>	Unknown
Atlantic Sturgeon	ASMFC	No <sup>3</sup>	Yes <sup>2</sup>	N/A
<b>Horseshoe Crab</b>	ASMFC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Northern Shrimp</b>	ASMFC	No	No	Yes <sup>4</sup>
<b>Spot</b>	ASMFC	Unknown <sup>5</sup>	Unknown <sup>5</sup>	Unknown
<b>Spotted Seatrout</b>	ASMFC	Unknown <sup>5</sup>	Unknown <sup>5</sup>	Unknown
<b>Striped Bass</b>	ASMFC	No <sup>2</sup>	No <sup>2</sup>	Unknown
<b>Tautog</b>	ASMFC	Yes	Undefined	Unknown
<b>Weakfish</b>	ASMFC	No <sup>2</sup>	No	No
Queen Triggerfish	GMFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Gulf Menhaden</b>	GSMFC	No <sup>2</sup>	No <sup>2</sup>	Unknown
<b>Black Drum</b>	GSMFC	Unknown <sup>5</sup>	Unknown <sup>5</sup>	Unknown

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
<b>Pacific Bonito</b>	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
California Barracuda	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>White Seabass</b>	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>White Croaker</b>	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Yellowtail</b>	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Giant Squid	PFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Mackerel Scad	WPFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Bigeye Scad	WPFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Pacific Halibut</b>	PFMC and NPFMC <sup>6</sup>	No	Undefined	Unknown
Rattails	NPFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Sea Snails	NPFMC	Unknown <sup>5</sup>	Unknown <sup>5</sup>	Unknown
<b>Bonito (Atlantic)</b>	HMS	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown

1. There is no federal FMP for this species, and no definition for determining the overfished status in Our Living
2. Used assessment from Our Living Oceans; there is no federal FMP for this species.
3. Fishing for Atlantic Sturgeon is prohibited, therefore, there is no fishing mortality.
4. Assessment is based on NEFSC autumn bottom trawl survey and the ASMFC summer shrimp survey (NOAA
5. There is no federal FMP for this species; the definition for determining the overfished status is based on the
6. The resource is managed by treaty between the United States and Canada through recommendations of the

**Table 6. 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 <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Winter Skate</b>	NEFMC	Yes	Yes	N/A
<b>Barndoor Skate</b>	NEFMC	Unknown	Yes	N/A
<b>Thorny Skate</b>	NEFMC	Unknown	Yes	N/A
<b>Smooth Skate</b>	NEFMC	Unknown	Yes	N/A
<b>Little Skate</b>	NEFMC	No	No	No
<b>Clearnose Skate</b>	NEFMC	Unknown	No	No
<b>Rosette Skate</b>	NEFMC	Unknown	No	No
<b>Tilefish</b>	MAFMC	Yes <sup>2</sup>	Yes <sup>2</sup>	N/A
<b>Calico Scallops</b>	SAFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
<b>Rock Shrimp</b>	SAFMC	Unknown <sup>1</sup>	Unknown <sup>1</sup>	Unknown
Sargassum	SAFMC	Unknown <sup>3</sup>	Unknown <sup>3</sup>	Unknown
<b>Wahoo</b>	SAFMC/GMFMC/CFMC	Unknown <sup>3</sup>	Unknown <sup>3</sup>	Unknown
<b>Bluefin Tuna (North Pacific)<sup>4</sup></b>	PFMC	Unknown <sup>3</sup>	Unknown <sup>3</sup>	Unknown

1. There is no FMP for this species; the definition for determining the overfished status is based on the definition in Our Living Oceans.

2. Used assessment from Our Living Oceans; there is no FMP for this species.
3. There is no FMP for this species, and no definition for determining the overfished status in Our Living Oceans.
4. 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 POLICY CHANGES AND DESCRIPTION OF METHODOLOGY FOR DETERMINING OVERFISHING STATUS**

The format of the report has been changed to avoid confusion experienced with the 1999 report. Information on necessary management actions to be taken and progress being made in rebuilding overfished stocks is presented more clearly. 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. Furthermore, 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.

### **Removal of Overfished Column**

Last year's report contained three columns for determining whether a stock was overfished. The first column was labeled Fishing Mortality Rate. If the current fishing mortality rate exceeded the established fishing mortality threshold, yes was entered. The second column was labeled Biomass. If the current stock size was below the minimum stock size threshold, yes was entered. If yes was entered for either of these two columns, then yes was also listed in the third column, labeled Overfished? This led to confusion for some stocks in which the fishing mortality rate was above the threshold (overfishing was occurring), and the stock level was above the threshold level (not overfished), but the stock was nonetheless listed as overfished.

This year, the third column for determining whether a stock is overfished has been removed. The remaining two columns provide a straightforward distinction between those stocks for which overfishing is occurring and those that are overfished. As in last year's report, 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. Because there is no third column that provides a combined determination for the overfishing and overfished columns, there is no number provided that includes the combined determinations for all stocks. These two categories cannot 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. Last year's report did not differentiate between fishing mortality rate and stock size in determining if a stock was approaching an overfished condition. This year, the determination is 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. Overfishing definitions are listed in Appendix 2.

## **Determining Status of Stocks**

Last year's report was the first to reflect that stock assessments were based on new statutory overfishing definitions, in conformance with SFA requirements. While many assessments were based on fully approved overfishing definitions that specified both a maximum fishing mortality rate threshold and a minimum stock size threshold, there were also many assessments based on partially approved or fully disapproved definitions. In 1999, the disapproved component of a partially approved definition was listed as undefined. In the case of a fully disapproved definition, the report reverted to the entire pre-SFA definition in the FMP. In the 2000 report, for partially approved definitions, 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.

## **Pre-SFA and Post-SFA Definitions**

Given the variety of status criteria available to make stock assessments, this year's report has divided 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) also makes direct comparisons difficult. Nevertheless, the determinations in the fishing mortality rate column in last year's report can be compared with the determinations in the overfishing column this year. Likewise, the determinations in last year's biomass column can be compared to the overfished column in the 2000 report.

## **Addition of Rebuilding Progress Column**

This year's report provides additional information about those stocks for which rebuilding programs are required. Last year's report simply indicated whether or not an SFA rebuilding program had been approved for stocks listed as overfished. 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 programs 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 2000 is used as the cutoff date for determining the year in which the rebuilding plan is currently in.

There are some stocks in the report that are listed as not overfished, yet rebuilding plans continue to be in effect. This is because stocks that 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. Their status is listed as No - rebuilding under the Overfished column. These stocks are also footnoted to indicate that they must continue rebuilding, even though they are currently listed as not overfished. It is important to note that the status of these 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.

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, 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 an FMP or an FMP under development, but that do not have an overfishing definition; or (3) for which the overfishing definition is inadequate to make a determination of overfishing. 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 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, while many of the Pacific salmon stocks under the PFMC jurisdiction are listed as overfished, they are not significantly impacted in fisheries within the Council's jurisdiction. 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  $F_{\max}$  (0.24), when the stock biomass is equal to or greater than  $B_{\text{msy}}$  or when F is greater than zero if stock is below  $\frac{1}{4}B_{\text{msy}}$ .

A stock is overfished when stock biomass is below  $\frac{1}{4}B_{\text{msy}}$ . Proxies for  $B_{\text{msy}}$  are defined as 8.16 kg/tow.

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

A stock is overfished when stock biomass is below  $\frac{1}{4}B_{\text{msy}}$ . Proxies for  $B_{\text{msy}}$  are defined as 3.90 kg/tow.

**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  $B_{\text{MSY}}$  (54,000 spawning salmon is set as a proxy for  $B_{\text{MSY}}$ ).

### **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  $F_{\text{msy}}$  (0.31).

A stock is overfished when the total stock biomass is less than  $\frac{1}{4}B_{\text{msy}}$  (8,300 mt).

**(Georges Bank)** - Overfishing occurs when  $F$  exceeds  $F_{msy}$  (0.32).

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

**(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).

**(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  $\frac{1}{2}B_{msy}$  (4.38 kg/tow).

**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. The value for the biomass threshold in last year's report was the value contained in Amendment 9, which was incorrect. The correct value is that used by the Overfishing Definition Review Panel and is given below.

Overfishing occurs when  $F$  exceeds  $F_{0.1}$  (0.18).

A stock is overfished when the spawning stock biomass is less than  $\frac{1}{4}B_{msy}$  at  $F_{0.1}$  (10,000 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  $F_{20\%}$  (0.12).

A stock is overfished when the spawning stock biomass is less than  $\frac{1}{2}B_{msy}$  (60,500 mt).

**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  $F_{msy}$  (0.14).

A stock is overfished when the total stock biomass is less than  $42\%B_{msy}$  (estimated to be 9,000 mt)

**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  $F_{msy}$  (0.30).

A stock is overfished when the total stock biomass is less than  $\frac{1}{4}B_{msy}$  (12,250 mt).

**(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  $F_{msy}$  (0.17).

A stock is overfished when the total stock biomass is less than  $\frac{1}{2}B_{msy}$  (7,000 mt).

**(Middle Atlantic)** - Overfishing occurs when F exceeds  $F_{msy}$  (0.36), which is defined as  $MSY/B_{target}$ .

A stock is overfished when the total stock biomass is less than the survey proxy for  $\frac{1}{2}B_{msy}$  (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  $F_{msy}$  (0.25).

A stock is overfished when the total stock biomass is less than  $\frac{1}{4}B_{msy}$  (5,700 mt).

**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  $F_{20\%}$  (0.65).

A stock is overfished when the spawning stock biomass is less than  $\frac{1}{4}B_{msy}$  (26,000 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  $F_{msy}$  (1.11 catch / survey index).

A stock is overfished when the total stock biomass is less than  $\frac{1}{2}B_{msy}$  (0.47 kg/tow).

**(Southern New England / Middle Atlantic)** – Overfishing occurs when F exceeds  $F_{msy}$  (2.24 catch / survey biomass).

A stock is overfished when the total stock biomass is less than  $\frac{1}{4}B_{msy}$  (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  $F_{MSY}$  (0.98 catch / survey biomass).

A stock is overfished when the total stock biomass is less than  $\frac{1}{2}B_{MSY}$  (1.37 kg/tow).

**(Southern New England)** - Overfishing occurs when F exceeds  $F_{MSY}$  (0.32).

A stock is overfished when the total stock biomass is less than  $\frac{1}{4}B_{MSY}$  (6,500 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  $F_{0.1}$ .  $F_{0.1}$  (0.41 for Gulf of Maine / Northern Georges Bank Silver Hake, and 0.39 for Southern Georges Bank / Middle Atlantic Silver Hake).

There is currently no biomass threshold established. The biomass target is the stratified mean survey weight per tow during 1973-1982 until more satisfactory estimates of  $B_{MSY}$  are available.

**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 25<sup>th</sup> 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).

**Red Hake** - 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.

**(Southern Georges Bank / Middle Atlantic)** - Overfishing occurs when the 3-year moving average weight per individual in the autumn survey falls below the 25<sup>th</sup> percentile of the average weight per individual from the autumn survey time series 1963-1997 (0.12).

A stock is overfished when the 3-year moving average of the abundance of immature fish less than 25 cm falls below the median value of the 1963-1997 autumn survey abundance of fish less than 25 cm (4.72).

**(Gulf of Maine / Northern Georges Bank)** - Overfishing occurs when F exceeds  $F_{MSY}$  (0.65).

A stock is overfished when the biomass is less than  $\frac{1}{2}B_{MSY}$  proxy (1.6 kg/tow).

**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  $F_{msy}$  (0.31 catch / survey index).

A stock is overfished when the total stock biomass is less than  $\frac{1}{2}B_{msy}$  (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  $F_{0.1}$  (0.06). Maximum rebuilding time is undefined for this stock. No fishing mortality is permitted ( $F = 0$ ) until the stock is rebuilt (provisional control law).

A stock is overfished when the total stock biomass is less than the biomass threshold of  $\frac{1}{2}B_{MSY}$  (2,700 mt).

**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  $F_{msy}$  (0.30).

A stock is overfished when the total stock biomass is less than  $B_{msy}$  (500,000 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 (0.051).

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

**Southern stock** - Overfishing occurs when F exceeds  $F_{threshold}$ , which is the average F during 1970-1979 (0.217).

A stock is overfished when the survey index is less than  $B_{threshold}$ , which is the 33<sup>rd</sup> percentile of the 1963-1994 NEFSC autumn trawl survey catch (0.75 kg/tow).

**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) (0.11).

A stock is overfished when the biomass threshold is less than  $\frac{1}{2}SSB_{max}$  (100,000 mt).

### **Summer Flounder, Scup, and Black Sea Bass**

**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  $F_{msy}$  ( $F_{max}$  is used as a proxy, set at 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) (2.77 kg/tow, the average of 1977-1979).

**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  $F_{max}$  (0.24). Since the biomass target ( $B_{msy}$ ) cannot be estimated, biomass per recruit at  $F_{max}$  (3.7754 kg/recruit), times an average recruitment during 1982-1996 (40.6 million fish), is used for a  $B_{msy}$  proxy.

A stock is overfished when total biomass falls below the minimum biomass threshold of  $\frac{1}{2}B_{msy}$  (53,200 mt).

**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  $F_{msy}$  ( $F_{max}$  is used as a proxy, set at 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) (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  $F_{MSY}$  ( $F = 0.4$ ).

A stock is overfished when the minimum biomass is less than  $\frac{1}{2}B_{MSY}$  (53,800 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).

**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.

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.

### **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  $F_{\text{msy}}$  (1.22).

A stock is overfished when the minimum biomass is less than  $\frac{1}{2}B_{\text{msy}}$  (19,650 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  $F_{\text{max}}$  ( $F_{\text{max}}$  is a proxy for  $F_{\text{msy}}$ ; current estimates for  $F_{\text{max}} = 0.66$  and 1.24 for winter and summer cohorts, respectively).

A stock is overfished when the minimum biomass is less than the biomass threshold of  $\frac{1}{2}B_{\text{msy}}$  (40,000 mt).

**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  $F_{\text{msy}}$  (0.45). To avoid low levels of recruitment, the threshold F decreases linearly from 0.45 at 890,000 mt SSB to zero at 225,000 mt SSB ( $\frac{1}{4}B_{\text{msy}}$ ).

A stock is overfished when the SSB is less than 890,000 mt.

**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  $F_{msy}$  (1.01) is exceeded. Annual quotas are set equal to 75% of  $F_{msy}$ . Annual quotas will be specified which correspond to a target F of 75% of  $F_{msy}$ .

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

**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.

**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, Red Porgy, Gag, Red Snapper, Speckled Hind, Snowy Grouper, Warsaw Grouper, Golden Tilefish, Yellowtail Snapper, Red Grouper, Black Grouper, Black Sea Bass, Mutton Snapper, Wreckfish, Scamp, White Grunt, Greater Amberjack, Gray (Mangrove) Snapper, Lane Snapper, Gray Triggerfish, Yellowedge Grouper, 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.

**Black Sea Bass and Red Porgy** - Overfished is defined as a stock size less than the minimum stock size threshold.

**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, 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).

**Gag, Vermilion Snapper, Greater Amberjack, 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.

**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, Foureye 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 Damsel, Dusky Damsel, Beaugregory, Bicolor Damsel, Threespot Damsel, 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, Tobacconfish, 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 pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a biomass (B) component.

**Chinook Salmon (Columbia River, upriver Summer), Chinook Salmon (Columbia River, upriver Spring), Chinook Salmon (Columbia River, Snake River, Spring), Chinook Salmon (Columbia River, Lewis River / Fall), Chinook Salmon (Skagit River, Spring), Chinook Salmon (Skagit River, Summer / Fall), Chinook Salmon (Stillaguamish River, Summer / Fall), Chinook Salmon (Lake Washington), Chinook Salmon (Dungeness River), Coho Salmon (Strait of Juan de Fuca), Chinook Salmon (Snohomish River, Summer / Fall), other Chinook Salmon stocks, and other Coho Salmon stocks** - Overfishing is an occurrence whereby all mortality, regardless of the source, results in a failure of a salmon stock to meet its annual spawning escapement goal or management objective, as specified in Section 3.5 of the salmon FMP, for 3 consecutive years, and for which changes in the fishery management regime offer the primary opportunity to improve stock status. While this condition is defined as overfishing in the broad sense, it is recognized that this situation may also be the result of nonfishing mortality and fishery management actions may not adequately address the situation.

All of these stocks, except for Coho Salmon (Strait of Juan de Fuca), Chinook Salmon (Snohomish River, Summer / Fall), other Chinook Salmon, and other Coho Salmon are listed under the Endangered Species Act (ESA). Harvest levels for listed stocks are restricted to incidental take only and, therefore, were determined to be below acceptable levels of harvest and determined to not have overfishing occurring.

When a specific stock or stock grouping fails to meet its annual spawning escapement objective for 3 consecutive years, the Council shall appoint a work group to investigate the causes of the apparent shortfall (e.g., due to causes within or outside of Council control). The current status of stock productivity and all sources of stock mortality will be examined by the work group and a report of its conclusions and recommendations provided to the Council. For those actions within Council control, the Council may change analytical or procedural methodologies to improve the accuracy of estimates for abundance, harvest impact and MSY escapement levels, and/or to reduce ocean harvest impacts when shown to be effective in stock recovery to MSY levels.

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.

**Steelhead** - No overfishing definition exists in the FMP.

**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, Silvergrey Rockfish, Yelloweye Rockfish, Widow 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), 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 means fishing at a rate or level that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis. More specifically, overfishing is defined as exceeding a maximum allowable fishing mortality rate. For any groundfish stock or stock complex, the maximum allowable mortality rate will be set at a level not to exceed the corresponding maximum sustainable yield rate ( $F_{MSY}$ ) or its proxy (e.g.,  $F_{35\%}$ ).

Overfished describes any stock or stock complex whose size is sufficiently small that a change in management practices is required to achieve an appropriate level and rate of rebuilding. The term generally describes any stock or stock complex determined to be below its overfished / rebuilding threshold. The default proxy is generally 25% of its estimated unfished biomass; however, other scientifically valid values are also authorized.

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 ( $SPR = 20\%$ ), based on cohort analysis of the pink coral.

**Bottomfish and Seamount Groundfish of the Western Pacific** - The overfishing definitions was 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, 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, Northern 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, Big Skate, Flathead Skate, Longnose Skate, Roughtail Skate, Sandpaper Skate, Starry 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 Opisthoteuthis californica, Squid Berryteuthis magister, Squid Onychoteuthis borealijaponicus** - Overfishing is defined as any amount 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  $F$  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.

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**Alaska Salmon** - 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 biomass ( $B$ ) component.

**Pink Salmon, Sockeye Salmon, Chum Salmon, Coho Salmon, Chinook Salmon** - Overfishing is defined as any fishing that 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, Eastern Bering Sea Northern Rockfish, Aleutian Islands Northern Rockfish, Eastern Bering Sea Sharpchin Rockfish, Aleutian Islands Sharpchin Rockfish, Eastern**

**Bering Sea Shortraker Rockfish, Aleutian Islands Shortraker Rockfish, Eastern Bering Sea Rougheye Rockfish, Aleutian Islands Rougheye Rockfish, Squid Berryteuthis magister, Squid Onychoteuthis borealijaponicus, Longspine Thornyhead, Shortspine Thornyhead, Bering Flounder, Kamchatka Flounder, 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, Big Skate, Commander Skate, Deepsea Skate, Golden Skate, Longnose Skate, Mud Skate, Okhotsk Skate, Roughtail Skate, Sandpiper Skate, Starry Skate, White-Blotched Skate, Whitebrow Skate, Blue Shark, Pacific Sleeper Shark, Salmon Shark, Sixgill Shark, Soupfin Shark, Spiny Dogfish Shark, Capelin, Eulachon, Rainbow Smelt, Octopus Octopus dofleini, Octopus Opisthoteuthis californica) - Overfishing is defined as any amount 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  $\alpha$  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,  $F_{\text{overfishing}} = M = 0.13$ . 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. 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) ( $F_{1995}/F_{MSY} = 1.21$ ), White Marlin (North Atlantic) ( $F_{1995}/F_{MSY} = 2.37$ ), and Sailfish ( $F_{1995}/F_{MSY} = 1.4$ ).

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

**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  $F_{limit} = F_{MSY}$ . The relative fishing mortality rates ( $F_{year}/F_{MSY}$ ) are as follows: North Atlantic Swordfish ( $F_{98}/F_{msy}=1.34$ ), West Atlantic Bluefin Tuna ( $F_{97}/F_{MSY}$  two-line = 1.73), Bigeye Tuna ( $F_{98}/F_{MSY} = 1.50 - 1.82$ ), North Atlantic Albacore Tuna ( $F_{97}/F_{MSY} = 1.39$  (uncertain)), Yellowfin Tuna ( $F_{97}/F_{MSY} =$  variable, probably exceeds 1.0), Blacktip Shark ( $F_{97}/F_{MSY} = 3.52$  (baseline)), Sandbar Shark ( $F_{97}/F_{MSY} = 2.70$  (baseline)), Large Coastal Sharks ( $F_{97}/F_{MSY} = 6.34$  (baseline)),

and Small Coastal Sharks ( $F_{86-91}/F_{MSY} = 0.89$ ).

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

\*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. An overfishing definition consistent with SFA guidelines is currently under review.

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%).

**Tautog** - The overfishing definition contained in the FMP under development has not been formally approved, but was used to make the assessment contained in this year's report because there is no information regarding the status of Tautog in OLO. This definition contains only a fishing mortality rate (F) component.

Overfishing occurs when F exceeds the overfishing threshold F (0.50). The interim fishing mortality threshold is 0.24.

**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. The assessment is based on the 2000 Stock Assessment Workshop (SAW).

A stock is overfished when the biomass is less than  $B_{MSY}$ . The  $B_{MSY}$  proxy is set at 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 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Middle Atlantic offshore region during 1967-1998.

**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.

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

A stock is overfished when the biomass is below the 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Southern New England offshore region during 1963-1998.

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

A stock is overfished when the biomass is below the 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Southern New England offshore region during 1963-1998.

**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 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Gulf of Maine / Middle Atlantic offshore region during 1982-1999.

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

A stock is overfished when the biomass is below the 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Middle Atlantic inshore and offshore regions during 1975-1998.

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

A stock is overfished when the biomass is below the 75<sup>th</sup> percentile value of the NEFSC autumn biomass indices for the Middle Atlantic offshore region during 1967-1998.

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

See Appendix 5 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  
 $F_{ABC} = \mu_H$ , the harmonic mean of the pdf

1b) Stock status:  $B/B_{MSY} < 1$   
 $F_{OFL} = \mu_A \times (B/B_{MSY} - ) / (1 - )$   
 $F_{ABC} = \mu_H \times (B/B_{MSY} - ) / (1 - )$

1c) Stock status:  $B/B_{MSY}$   
 $F_{OFL} = 0$   
 $F_{ABC} = 0$

2) Information available: Reliable point estimates of B,  $B_{MSY}$ ,  $F_{MSY}$ ,  $F_{35\%}$ , and  $F_{40\%}$ .

2a) Stock status:  $B/B_{MSY} > 1$   
 $F_{OFL} = F_{MSY}$   
 $F_{ABC} = F_{MSY} \times (F_{40\%}/F_{35\%})$

2b) Stock status:  $B/B_{MSY} < 1$   
 $F_{OFL} = F_{MSY} \times (B/B_{MSY} - ) / (1 - )$   
 $F_{ABC} = F_{MSY} \times (F_{40\%}/F_{35\%}) \times (B/B_{MSY} - ) / (1 - )$

2c) Stock status:  $B/B_{MSY}$   
 $F_{OFL} = 0$   
 $F_{ABC} = 0$

3) Information available: Reliable point estimates of B,  $B_{40\%}$ ,  $F_{35\%}$ , and  $F_{40\%}$ .

3a) Stock status:  $B/B_{40\%} > 1$   
 $F_{OFL} = F_{35\%}$   
 $F_{ABC} = F_{40\%}$

3b) Stock status:  $B/B_{40\%} < 1$   
 $F_{OFL} = F_{35\%} \times (B/B_{40\%} - ) / (1 - )$   
 $F_{ABC} = F_{40\%} \times (B/B_{40\%} - ) / (1 - )$

3c) Stock status:  $B/B_{40\%}$   
 $F_{OFL} = 0$   
 $F_{ABC} = 0$

4) Information available: Reliable point estimates of B,  $F_{35\%}$ , and  $F_{40\%}$ .

$F_{OFL} = F_{35\%}$   
 $F_{ABC} = F_{40\%}$

5) Information available: Reliable point estimates of B and natural mortality rate M.

$F_{OFL} = M$   
 $F_{ABC} = 0.75 \times M$

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 0.75 x OFL

## APPENDIX 6. ACRONYMS USED IN APPENDICES

   - 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<sub>MSY</sub> - 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<sub>ABC</sub> - The level of fishing mortality that results in the allowable biological catch.

F<sub>MAX</sub> - The level of fishing mortality that results in the greatest yield from the fishery.

F<sub>MSY</sub> - The level of fishing mortality that results in the maximum sustainable yield.

F<sub>OF</sub> - The level of fishing mortality defined as overfishing.

$E_{OFL}$  - 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.

$E_{20\%}$  - 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:  $\frac{1}{2}$  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 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.

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.

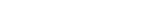
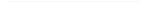
SSB - Spawning Stock Biomass - The total weight of the fish in a stock that are old enough to spawn.

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.



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