

Interim Rule to Temporarily Amend the  
Monkfish Fishery Management Plan

Environmental Assessment and  
Regulatory Impact Review

Prepared by  
National Marine Fisheries Service, Northeast Regional Office

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## TABLE OF ACRONYMS

<b>A</b>	Adult life stage
<b>A13</b>	Amendment 13 to the Multispecies FMP
<b>ALWTRP</b>	Atlantic Large Whale Take Reduction Plan
<b>APA</b>	Administrative Procedures Act
<b>ASMFC</b>	Atlantic States Marine Fisheries Commission
<b>CA I</b>	Closed Area I under the Multispecies FMP
<b>CA II</b>	Closed Area II under the Multispecies FMP
<b>DAM</b>	Dynamic Area Management
<b>DAS</b>	days-at-sea
<b>DMF</b>	Division of Marine Fisheries (Massachusetts)
<b>DMR</b>	Department of Marine Resources (Maine)
<b>DSEIS</b>	Draft Supplemental Environmental Impact Statement
<b>E</b>	Egg life stage
<b>EA</b>	Environmental Assessment
<b>EEZ</b>	exclusive economic zone
<b>EFH</b>	essential fish habitat
<b>EIS</b>	Environmental Impact Statement
<b>EPA</b>	Environmental Protection Agency
<b>ESA</b>	Endangered Species Act
<b>FMP</b>	fishery management plan
<b>FVTR</b>	Fishing vessel trip report
<b>FW</b>	Framework
<b>FW 13</b>	Framework 13 to the Scallop FMP
<b>FY</b>	fishing year
<b>GB</b>	Georges Bank
<b>GOM</b>	Gulf of Maine
<b>GRT</b>	gross registered tons/tonnage
<b>HAPC</b>	habitat area of particular concern
<b>HCA</b>	Habitat Closed Area
<b>HPTRP</b>	Harbor Porpoise Take Reduction Plan
<b>IFQ</b>	individual fishing quota
<b>IWC</b>	International Whaling Commission
<b>J</b>	Juvenile life stage
<b>LOA</b>	letter of authorization
<b>MA</b>	Mid-Atlantic
<b>MAFMC</b>	Mid-Atlantic Fishery Management Council
<b>MMC</b>	Monkfish Monitoring Committee
<b>MMPA</b>	Marine Mammal Protection Act
<b>MPA</b>	marine protected area
<b>MSFCMA</b>	Magnuson-Stevens Fishery Conservation and Management Act
<b>MSMC</b>	Multispecies Monitoring Committee
<b>MSY</b>	maximum sustainable yield
<b>NAAA</b>	Northwest Atlantic Analysis Area
<b>NEFMC</b>	New England Fishery Management Council

<b>NEFSC</b>	Northeast Fisheries Science Center
<b>NEPA</b>	National Environmental Policy Act
<b>NERO</b>	Northeast Regional Office
<b>NFMA</b>	Northern Fishery Management Area
<b>NLCA</b>	Nantucket Lightship Closed Area
<b>NMFS</b>	National Marine Fisheries Service
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>OY</b>	optimum yield
<b>PBR</b>	Potential Biological Removal
<b>PRA</b>	Paperwork Reduction Act
<b>PREE</b>	Preliminary Regulatory Economic Evaluation
<b>RFA</b>	Regulatory Flexibility Act
<b>RMA</b>	Regulated Mesh Area
<b>RPA</b>	Reasonable and Prudent Alternatives
<b>SAFE</b>	Stock Assessment and Fishery Evaluation
<b>SARC</b>	Stock Assessment Review Committee
<b>SAW</b>	Stock Assessment Workshop
<b>SBNMS</b>	Stellwagen Bank National Marine Sanctuary
<b>SEIS</b>	Supplemental Environmental Impact Statement
<b>SFA</b>	Sustainable Fisheries Act
<b>SFMA</b>	Southern Fishery Management Area
<b>SIA</b>	Social Impact Assessment
<b>SMAST</b>	U. Mass. Dartmouth School of Marine Science and Technology
<b>SNE</b>	southern New England
<b>SNE/MA</b>	southern New England-Mid-Atlantic
<b>SSB</b>	spawning stock biomass
<b>TAC</b>	total allowable catch
<b>TED</b>	turtle excluder device
<b>USCG</b>	United States Coast Guard
<b>USFWS</b>	United States Fish and Wildlife Service
<b>USGS</b>	United States Geological Survey
<b>VMS</b>	vessel monitoring system
<b>VPA</b>	virtual population analysis
<b>VTR</b>	vessel trip report
<b>YPR</b>	yield per recruit

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## **1.0 Introduction**

### **1.1 Executive Summary**

The monkfish fishery is jointly managed by the New England Fishery Management Council (NEFMC) and the Mid-Atlantic Fishery Management Council (MAFMC), with the NEFMC having the administrative lead. The fishery extends from Maine to North Carolina out to the continental margin. The Councils manage the fishery as two stocks, with the Northern Fishery Management Area (NFMA) covering the Gulf of Maine and northern part of Georges Bank, and the Southern Fishery Management Area (SFMA) extending from the southern flank of Georges Bank through the Mid-Atlantic Bight to North Carolina (see Figure 1).

The Councils adopted a rebuilding plan for monkfish in 1999 with the adoption of the Monkfish FMP. The original FMP was subsequently modified and amended to include an annual measure of the status of the stocks and adjustment to management measures as needed to maintain a 10-year rebuilding schedule, principally with the implementation of Framework Adjustment 2 in 2003. Following several years of increases in the biomass index for both stocks, the indices have lagged behind the rebuilding schedule and are now both below the minimum biomass threshold and approximately 50% below their annual biomass index targets. Furthermore, both stocks will be entering the final three years of a rebuilding plan with the start of the 2007 fishing year. In light of the status of the monkfish resource and given the approach of the end of the rebuilding plan, the Councils began development of Framework 4 to ensure that the goals of the 10-year rebuilding program could be met in 2009. The NEFMC approved Framework 4 at their November 15, 2006, meeting, and the MAFMC approved Framework 4 at its December 13, 2006, meeting. The Councils submitted Framework 4, including the Environmental Assessment (EA) and Regulatory Impact Review (RIR) to the National Marine Fisheries Service on January 11, 2007.

Due to concerns over the status of the monkfish resource and the fact that monkfish is nearing the end of the rebuilding program, the National Marine Fisheries Service (NMFS) intends to delay making a decision on Framework 4 until the results of an upcoming monkfish stock assessment in July 2007 are available. Since a decision on Framework 4 would be delayed beyond the start of the fishing year, NMFS is proposing interim management measures for the start of the fishing year on May 1, 2007, that are partially based on the information and management measures contained in Framework 4. The management measures being proposed by NMFS would implement the proposed target total allowable catch (TAC), trip limits, and days-at-sea (DAS) contained in Framework 4 for the Northern Fishery Management Area (NFMA), but maintain the fishing year (FY) 2006 target TAC, trip limits, and DAS for the Southern Fishery Management Area (SFMA). In addition, the proposed interim rule would temporarily implement Framework 4 measures that have been determined not to result in any additional negative biological effects. These measures include: A revision to the monkfish incidental catch limit in the NFMA, a revision to the boundary line for limited access monkfish Category H permit holders, and a revision to the monkfish incidental catch limit applicable to limited access scallop vessels fishing in the Scallop Access Areas. This action would also prohibit the use of any carryover DAS during the time period the interim rule is in effect. The intent of these proposed actions is to eliminate overfishing and rebuild the monkfish resource in

accordance with Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requirements.

Under the proposed action, target total allowable catch levels (TACs) will be set at 5,000 mt and 3,667 mt for the NFMA and SFMA, respectively. These TACs are the basis for calculating the monkfish trip limits and days-at-sea (DAS) allocations for vessels targeting monkfish. In addition, this action would require vessels fishing in the NFMA on a multispecies DAS, and exceeding the monkfish incidental catch limit, to call in a monkfish DAS. Vessels in the SFMA are already required to call in a monkfish DAS when exceeding the incidental limit. Unlike Framework 4, this interim rule would not provide limited access monkfish vessels fishing in the NFMA the ability to declare a monkfish DAS while at sea due to concerns that this provision will allow these vessels to target monkfish more efficiently in this management area, increasing the likelihood that the target TAC would be exceeded. Therefore, all limited access monkfish vessels intending to harvest monkfish in excess of the incidental catch limit must declare a monkfish DAS prior to leaving port.

The proposed action would retain the current 550 lbs. and 450 lbs. SFMA monkfish trip limit (tail wt. per DAS) for permit categories ACG and BDH, respectively. Vessels would have 12 DAS to target monkfish in the SFMA. In the NFMA, vessels will have 31 DAS and trip limits of 1,250 lbs. and 470 lbs. (tail wt. per DAS) for permit category AC and BD, respectively. In addition, this interim rule will temporarily not allow the use of carryover DAS. Available monkfish landings data for FY 2006 from May through December 2006 indicate that the fishery in the SFMA is over the FY 2006 target TAC by 21 percent. This overage in the target TAC is most likely due to the use of DAS carried over from FY 2005. Therefore, in order to prevent the interim target TACs in either management area from being over-harvested, this interim rule will not allow the use of carryover DAS. However, depending on the results of the July 2007 monkfish stock assessment, the Regional Administrator may use her authority to restore all or a portion of carryover DAS for this fishery.

As a consequence of the scientific uncertainties and technical difficulties with projecting the biological impact of specific management strategies for monkfish, the efficacy of the proposed action in achieving the rebuilding goals can only be qualitatively assessed. The target TAC for the NFMA represents the best estimate of a target catch that could facilitate rebuilding and maintain a limited directed fishery, consistent with National Standards 1 and 8. The proposed target TAC for the SFMA would maintain current effort levels, and is considered to be sufficient to allow stock rebuilding while maintaining a limited directed fishery.

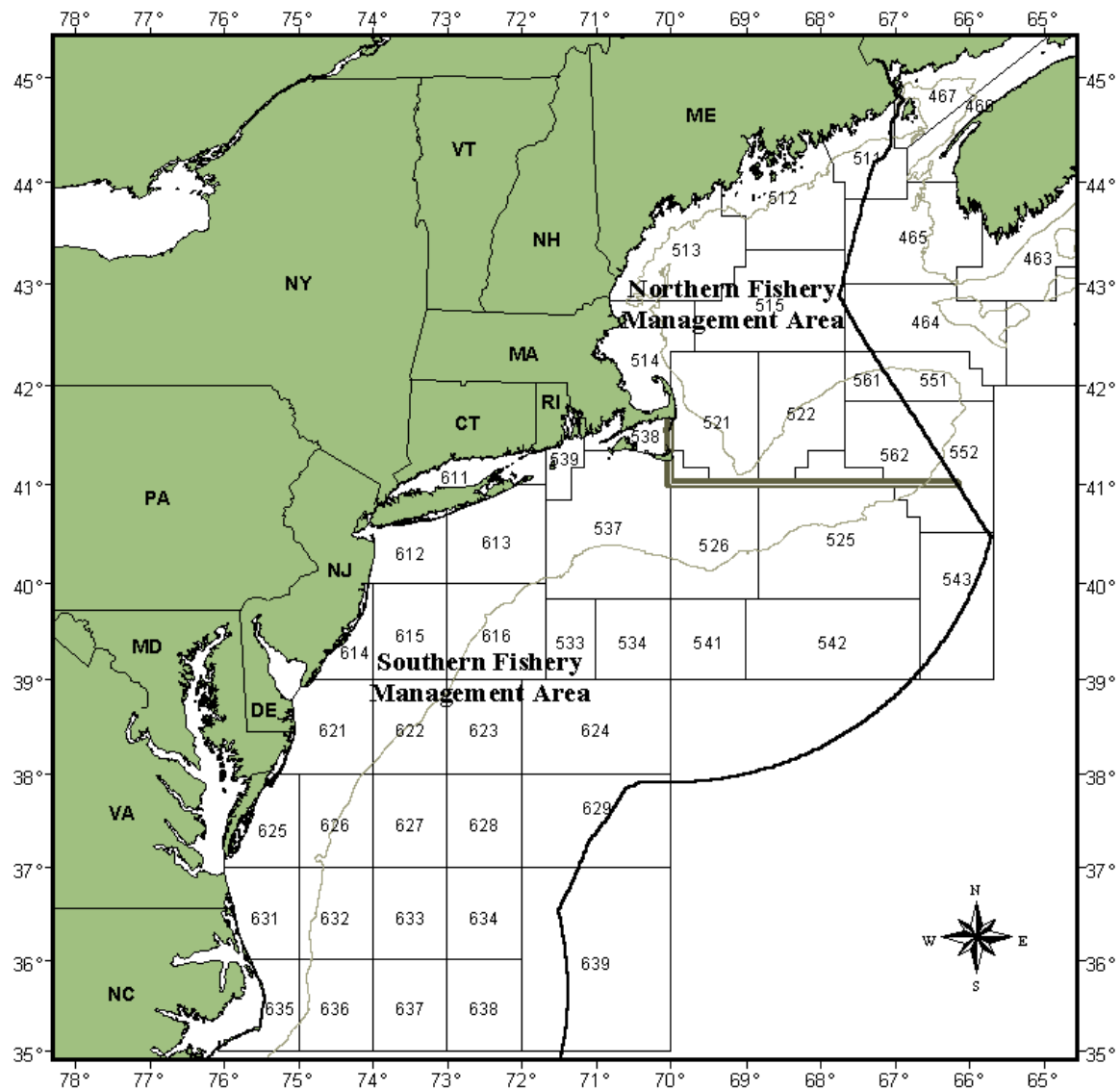
Based on several years of success at setting management measures, trip limits and DAS allocations, to achieve target TACs in the SFMA, NMFS expects that the proposed trip limits and DAS restrictions proposed for the SFMA will continue to keep landings within the proposed target TACs, especially since the use of carryover DAS would not be allowed under this interim rule. In recognition of the interrelatedness of the monkfish and multispecies fishery in the NFMA, where the monkfish catch is primarily a component of the multispecies catch, up to now limited access vessels fishing on a multispecies DAS had no monkfish trip limits. As a result, those vessels did not use monkfish DAS to target monkfish, and there is no monkfish DAS data on which to base a DAS allocation tied to the TAC. Therefore, there is less certainty about the

efficacy of the proposed DAS allocations and trip limits in limiting catch to the target TAC. Nevertheless, the proposed action represents a substantial reduction in potential effort targeting monkfish.

The proposed action will have different economic impacts in the two areas, with neutral effects in the SFMA and negative effects in the NFMA, since DAS will remain the same in the SFMA in comparison to FY 2006, and DAS and trip limits will be imposed for the first time in the north. In the north, however, landings have declined nearly 40 percent in the past four years as the biomass has declined, and, therefore, taking no action would also likely result in negative effects if the trend continued. The social impacts of the proposed action on monkfish communities mirror the economic impact. Some proposals are expected to have positive social impacts, such as the increased incidental catch limit on scallop vessels in the closed area access program, which also minimizes bycatch; and the change in the northern boundary line applicable to limited access monkfish Category H vessels, allowing these vessels an additional 20 nautical miles in which to conduct their fishing activities, reducing the potential for gear conflicts and interactions with sea turtles.

This action will not result in any significant cumulative impacts on the monkfish resource, non-target species, social and economic resources, essential fish habitat (EFH), or protected species.

In terms of compliance with other applicable laws, the management measures contained in this interim rule are consistent with the National Standards and other required provisions of the Sustainable Fisheries Act, and are deemed to be not significant under the National Environmental Policy Act and Executive Order 12866 (Regulatory Impact Review), based on the respective evaluation criteria. The proposed actions are consistent with the Marine Mammal Protection Act, and do not alter existing protections for marine mammals inhabiting the management area of the monkfish fishery. NMFS has concluded that the proposed action is not likely to result in jeopardy to any Endangered Species Act (ESA) listed species under NOAA Fisheries Service jurisdiction, or alter or modify any critical habitat. On January 12, 2007, the Councils sought concurrence from affected states (Maine to North Carolina) that the proposed management measures contained in Framework 4 are consistent with the enforceable policies of their respective coastal zone management programs, in compliance with section 307 of the Coastal Zone Management Act (CZMA). Because this action temporarily implements some of the management measures contained in Framework 4 as an interim rule, and also continues management measures for the SFMA for which the affected states previously provided concurrence in 2006, a new CZMA consistency determination is not required. However, due to timing issues surrounding New Hampshire's consistency review of Framework 4, NMFS has requested an expedited review of this action under the exigent circumstances exemption of the CZMA regulations (15 CFR 930.32(b)). A complete discussion of the consistency of the proposed action with all applicable laws and executive orders is provided in section 6.0



**Figure 1 - Monkfish management areas and three-digit statistical areas**

## **1.2 Background**

### **1.2.1 Actions under the Monkfish FMP**

#### **1.2.1.1 Framework 2 – annual adjustment procedure**

Framework 2, which became effective on May 1, 2003 (68 FR 22325, April 28, 2003), implemented a target total allowable catch (TAC) setting method that is based upon the relationship between the 3-year running average of the National Marine Fisheries Service's (NOAA Fisheries) fall trawl survey biomass index (3-year average biomass index) and established annual biomass index targets (annual index target). The annual index targets are based on 10 equal increments between the 1999 biomass index (the start of the rebuilding program) and the biomass target ( $B_{\text{target}}$ ), which is to be achieved by 2009 according the rebuilding plan established in the FMP. According to this target TAC setting method, annual target TACs are set based on the ratio of the observed biomass index to the annual index target applied to the monkfish landings for the previous fishing year.

Framework 2 also adopted a simulation method for calculating SFMA trip limits and DAS restrictions based on the target TAC and the observed monkfish catch by vessels fishing in that area. To estimate landings in the SFMA by permit categories AC and BD, the distribution of reported landings from fishing vessel trip reports (FVTR's) in the previous year in the SFMA is modified under a series of proposed daily landing limits. Total landings are recalculated based upon each new distribution. To estimate the landings under a given daily limit, all trips with a daily average below the simulated limit are assumed to have remained static, while all trips with a daily landings average greater than the simulated new limit have their average daily landings scaled down to the proposed limit. For example, to estimate the landings under a 700 lbs. tail weight per DAS limit, all trips with a daily average for a given trip below 700 lbs. are assumed unchanged, while all trips with a daily average greater than 700 lbs. have that average scaled down to 700 lbs.

Framework 2 removed the original FMP provisions that would have resulted in default measures for Year 4 of the rebuilding program eliminating the directed fishery. The original FMP called for ending the directed monkfish fishery in Year 4 of the rebuilding plan, that is, no monkfish DAS would be allocated, and all vessels would be operating under an incidental catch limit. That provision was replaced in Framework 2 by measures that would allow for annual adjustment to DAS and trip limits in the SFMA, and continuation of the directed fishery with no trip limit while on a multispecies DAS in the NFMA. The framework replaced that provision with a set of rules stating that if the SFMA TAC needed to be reduced below 8,000 mt, the trip limits on directed monkfish trips would be fixed at 550 and 450 lbs. (tail weight) per monkfish DAS, and any further effort reductions would be taken from the DAS available to vessels for fishing in the SFMA.

#### **1.2.1.2 Amendment 2 to the Monkfish FMP**

The Councils adopted Amendment 2 to the Monkfish FMP in 2005 (70 *Federal Register* 21927, April 28, 2005). Amendment 2 contained a number of measures that the Councils developed to

address essential fish habitat (EFH) and bycatch issues, as well as several issues raised during the public scoping process. Amendment 2 did not modify the stock rebuilding program adopted in Framework 2, nor did it modify the effort control program except for the effect of the Research DAS set-aside program. This program reduced each permitted vessel's DAS allocation by 0.7 DAS to create a pool of 500 DAS that can be used to help defray the costs of cooperative monkfish research projects. Therefore, the actual number of baseline DAS (unless modified by the annual adjustment procedure) is 39.3 DAS, rather than the 40 DAS established by the FMP.

Amendment 2 also created three new permit categories. Category F permits are issued in any year a vessel enrolls in the Offshore Fishery Program. Such vessels are allocated monkfish DAS based on the number of DAS available to limited access monkfish vessels fishing in the SFMA multiplied by the ratio of the applicable trip limit over 1,600 lbs. (tail weight) per DAS. Category G and H permits are issued for vessels that qualified under Amendment 2 for a limited access permit allowing such vessels to fish only south of 38°20'. Categories G and H vessels are given the same trip limits and DAS as Category A and B vessels, respectively.

### **1.2.2 Monkfish Framework 3/Multispecies Framework 42**

In response to updated multispecies stock assessment information, the NEFMC developed Framework 42 primarily to substantially reduce fishing mortality on several species in the multispecies rebuilding plan adopted through Multispecies Amendment 13, including modifications to the Multispecies B-regular DAS program (adopted as a pilot program in Amendment 13). One of the changes to the B-regular DAS program adopted in Framework 42 was the removal of the ability to use a monkfish DAS under the B-regular DAS Program, and the application of the monkfish incidental catch limit on Monkfish Permit Category C and D vessels fishing under this program, hence, the joint Multispecies Framework 42/Monkfish Framework 3. The purpose of this action was to reduce fishing effort on monkfish, and to prevent an increase in effort directed on monkfish as other multispecies fishing opportunities were being curtailed by prohibiting the targeting of monkfish under the B-regular DAS Program.

The NEFMC submitted Framework 42 on April 21, 2006. The NEFMC had announced in November 2005 that it would not be able to submit the framework in time for the measures to be implemented for the start of the fishing year on May 1, 2006. The National Marine Fisheries Service (NMFS), therefore, implemented the measures proposed in Framework 42 under the emergency action authority provided in the Magnuson-Stevens Act. In accordance with that authority, the emergency rules are effective for 180 days, renewable for an additional 180 days if warranted. Since Framework 42/3 was not implemented by then end of the initial 180-day period, NMFS announced on October 6, 2006 that the emergency rules would be extended for an additional period, or until Framework 42/3 is approved and implemented. On October 23, NMFS published the Final Rule implementing Framework 42/3 (71 *Federal Register* 62156) with an effectiveness date of November 22, 2006, superseding the emergency rules.

### **1.2.3 Monkfish Framework Adjustment 4**

The Councils initiated development of Framework Adjustment 4 to the FMP in March 2006 in response to NMFS concerns regarding the annual adjustment method implemented in Framework Adjustment 2 to the FMP, and in response to industry concerns over the substantial annual changes to management measures resulting from this annual adjustment method. As



noted in Section 1.2.1.1, Framework 2 added a target TAC setting control rule based on the ratio of a 3-year running average of the NMFS fall trawl survey biomass index to an established annual biomass index target, compared to landings from the previous year. Based on the experiences of the last several years, it became apparent that the Framework 2 control rule may result in measures that are inconsistent with the rebuilding goals of the FMP because changes to the target TACs are based, in large part, on prior landings. As such, under this control rule, target TACs could be increased even if annual biomass rebuilding targets are not met. As a result of these concerns and in light of status of the monkfish resource with respect to the rebuilding schedule established in the FMP, the Councils began development of Framework 4 during the spring of 2006 with the intent of addressing the apparent problems with the Framework 2 control rule, and to establish measures consistent with the stock rebuilding goals established in the original FMP.

The Councils approved Framework 4 on November 15, 2006 (NEFMC) and December 15, 2006 (MAFMC), and submitted the final Framework 4 document to NMFS on January 11, 2007. Following the submission of Framework 4 by the Councils and prior to approving publication of a proposed rule, concerns were raised over the fact that the monkfish fishery is in year 7 of a 10-year rebuilding plan, and is currently below the established  $B_{\text{threshold}}$  in both management areas (i.e., both stocks are overfished). Due to these concerns over the status of the monkfish resource with respect to its rebuilding plan, NMFS initiated a Stock Assessment Review Committee (SARC) and will hold an integrated Stock Assessment Workshop (SAW)/SARC meeting from July 9-11, 2007, (SAW 46) to perform a monkfish stock assessment. The tasks to be performed include a determination of stock status relative to the existing biological reference points (BRPs), a review of the existing BRPs and potential revision or redefinition of the BRPs along with a stock status determination, and review and potential revision of existing control rules for rebuilding the stock relative to the recommended BRPs.

Since the upcoming SAW/SARC will occur after the start of the 2007 fishing year, NMFS intends to delay making a final decision on Framework 4 until after the results of the stock assessment are available. Instead, NMFS intends to implement precautionary interim management measures for the start of the fishing year on May 1, 2007, in accordance with section 305(c) of the Magnuson-Stevens Act, based upon the information and management measures contained in Framework 4. The purpose of this interim rule is to implement management measures that would result in no additional negative biological impacts to the monkfish resource while NMFS has the opportunity to conduct a thorough review of the status of the monkfish resource using the best and most recent information available.

## **1.2.4 Other actions affecting the monkfish fishery**

### **1.2.4.1 Other FMP actions**

Both Multispecies and Sea Scallop fisheries have undergone a series of major actions since 1994 to reduce fishing effort and rebuild overfished stocks. Multispecies Amendment 13, and Frameworks 40A, 40B, and 41 produced in substantial reductions in overall multispecies effort, including effort on those multispecies vessels targeting monkfish. While some multispecies stocks, such as haddock, redfish and witch flounder have responded positively, other stocks,

particularly cod and yellowtail flounder remain species of concern, in need of additional conservation restrictions.

The scallop resource has responded positively to management measures adopted over the past decade. In particular, Amendment 10 to the Scallop FMP introduced rotational area management and adopted several measures to minimize impacts of the fishery on EFH. Subsequent framework adjustments (Framework 16 implemented in November 2004 and Framework 18 implemented in June 2006) have modified the management program to improve administration, increase yield-per-recruit, promote safety and minimize bycatch, as well as set the rotational management program measures through the 2007 fishing year. In large part due to the success of the scallop FMP and the profitability of the fishery, scallop vessels that also have monkfish limited access permits (and would be required to use a scallop DAS to target monkfish) elect to use their allocated effort to target scallops rather than monkfish. As a result, a substantial portion of the allocated monkfish effort is not used. Cumulatively, these actions, in both multispecies and scallop fisheries have likely had a positive effect on reducing effort in the monkfish fishery.

As of Framework 18, rather than allocating a specific number of DAS that will be charged per access area trip, vessels are awarded a specific number of trips per area, and are not charged a DAS equivalent nor are they on a scallop DAS. That modification has changed the way NMFS interprets the monkfish possession limit for access areas because incidental limits are based on pounds per DAS. On August 1, 2006, a small entity compliance letter was sent to all scallop permit owners explaining that vessels are only allowed to land up to 50 lbs. tail weight of monkfish per day and up to 150 lbs. tail weight per access area trip, rather than 300 lbs. tail weight per day that was allowed prior to implementation of Framework 18. The Monkfish Committee considered this interpretation after reviewing preliminary monkfish bycatch information from observer data, and recommended that the incidental catch limit applicable to limited access scallop vessels should be 300 lbs. tail weight per day, not to include steaming time, and that this measure be included in Framework Adjustment 4 to the FMP.

The Council will begin developing Framework 19 this fall, which will set scallop management measures for FY2008 and FY2009. Effort allocated in open area DAS and number of trips in access areas is not expected to be above levels allocated in the last biennial adjustment. While scallop catch per unit of effort may be lower in the near future and overall allocations may be less, scallop prices are still above historic levels so effort is not expected to shift to directed monkfish effort.

#### **1.2.4.2 Actions to Minimize Interactions with Protected Species**

Many of the factors that serve to mitigate the impacts of the monkfish fishery on protected species are currently being implemented in the Northeast Region under either the Atlantic Large Whale Take Reduction Plan (ALWTRP) or the Harbor Porpoise Take Reduction Plan (HPTRP). In addition, the Monkfish FMP has undergone repeated consultations pursuant to Section 7 of the Endangered Species Act (ESA), with the most recent Biological Opinion dated April 14, 2003. The conclusion in that Opinion states that the monkfish fishery is not likely to jeopardize the continued existence of Northern right whales, provided that the fishery is complying with the ALWTRP. A previous Biological Opinion for the Monkfish FMP, dated June 14, 2001, concluded that the continued implementation of the monkfish fishery was likely to jeopardize the

continued existence of Northern right whales as a result of mortality from entanglements in gillnet gear. NMFS implemented a set of Reasonable and Prudent Alternatives (RPAs) to remedy the jeopardy finding. These RPAs were implemented as revisions to the ALWTRP. As described below, the regulatory measures of the ALWTRP and the HPTRP must be adhered to by any vessel fishing for monkfish with gillnet gear.

#### **1.2.4.2.1 Harbor Porpoise Take Reduction Plan**

NMFS published the rule implementing the Harbor Porpoise Take Reduction Plan on December 1, 1998. The HPTRP includes measures for gear modifications and area closures, based on area, time of year, and gillnet mesh size. In general, the Gulf of Maine component of the HPTRP includes time and area closures, some of which are complete closures; others are closures to gillnet fishing unless pingers (acoustic deterrent devices) are used in the prescribed manner. The Mid-Atlantic component includes time and area closures in which gillnet fishing is prohibited regardless of the gear specifications.

#### **1.2.4.2.2 Atlantic Large Whale Take Reduction Plan**

The ALWTRP contains a series of regulatory measures designed to reduce the likelihood of fishing gear entanglements of right, humpback, fin, and minke whales in the North Atlantic. The main tools of the plan include a combination of broad gear modifications and time/area closures (which are being supplemented by progressive gear research), expanded disentanglement efforts, extensive outreach efforts in key areas, and an expanded right whale surveillance program to supplement the Mandatory Ship Reporting System.

Key regulatory changes implemented in 2002 included: 1) new gear modifications; 2) implementation of a Dynamic Area Management system (DAM) of short-term closures to protect unexpected concentrations of right whales in the Gulf of Maine; and 3) establishment of a Seasonal Area Management system (SAM) of additional gear modifications to protect known seasonal concentrations of right whales in the southern Gulf of Maine and Georges Bank.

On June 21, 2005, NMFS published a proposed rule (70 *Federal Register* 35894) for changes to the ALWTRP. The new ALWTRP measures proposed to be implemented would expand the gear mitigation measures by: (a) including additional trap/pot and net fisheries (*i.e.*, gillnet, driftnet) to those already regulated by the ALWTRP, (b) redefining the areas and seasons within which the measures would apply, (c) changing the buoy line requirements, (d) expanding and modifying the weak link requirements for trap/pot and net gear, and (e) requiring (within a specified timeframe) the use of sinking and/or neutrally buoyant groundline in place of floating line for all fisheries regulated by the ALWTRP on a year-round or seasonal basis. A final rule for this action has not yet been published.

#### **1.2.4.2.3 Atlantic Trawl Gear Take Reduction Team**

The first meeting of the Atlantic Trawl Gear Take Reduction Team (ATGTRT) was held in September 2006. The ATGTRT was convened by NMFS as part of a settlement agreement between the Center for Biological Diversity and NOAA Fisheries Service to address the incidental mortality and serious injury of long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins in several trawl gear fisheries operating in the Atlantic Ocean. Incidental takes of pilot whales, common dolphins and white-sided dolphins

have occurred in fisheries operating under the Atlantic Mackerel, Squid, and Butterfish FMP, as well as in mid-water and bottom trawl fisheries in the Northeast.

The Western North Atlantic stocks of pilot whales, common dolphins, and white-sided dolphins were designated as non-strategic in the 2005 Marine Mammal Stock Assessment Report. Therefore, the charge to the ATGTRT is to develop a take reduction plan within 11 months that, once implemented, will achieve the long-term goal of the Marine Mammal Protection Act of reducing serious injury and mortality of affected stocks to a level approaching a zero mortality rate goal (ZMRG) (which is 10% of the Potential Biological Removal (PBR) of each stock).

#### **1.2.4.2.4 Final Rule to minimize monkfish gillnet interaction with sea turtles**

On December 3, 2002, the agency published a final rule (67 *Federal Register* 71895) establishing seasonally adjusted gear restrictions by closing portions of the mid-Atlantic EEZ waters to fishing with large-mesh (>8") to protect migrating sea turtles, following an interim final rule published March 21 that year. The basis of this rule was that sea turtles migrate northward as water temperatures warmed. At the time the interim and final rules were published, there was no evidence that the primary fishery involved – monkfish – was being prosecuted in state waters. In 2002, when most monkfish fishermen were not permitted under the FMP to fish in the EEZ and the rest were faced with the sea turtle closures, the proportion of North Carolina monkfish landings from state waters increased five-fold to 92%, posing an unforeseen risk to migrating sea turtles since they were not protected in state waters. In response, NMFS published a final rule on April 26, 2006 (71 *Federal Register* 24776) that included modifications to the large-mesh gillnet restrictions. Specifically, the new final rule revises the gillnet restrictions to apply to stretched mesh that is 7 inches or greater and extends the prohibition on the use of such gear to North Carolina and Virginia state waters. Federal and state waters north of Chincoteague, VA remain unaffected by the large-mesh gillnet restrictions.

## **2.0 Purpose and Need**

### **2.1 Need to take action**

The monkfish fishery is entering year 7 of a 10-year rebuilding plan and is currently considered to be overfished in both management areas. In fact, the 3-year running average of the biomass index from the annual NMFS fall trawl survey needs to double over the next 3 years in order to achieve the rebuilding targets established in the original FMP in 1999. While both stock indices had moved above the minimum biomass threshold ( $B_{\text{threshold}}$ ) in the intervening years, they both declined to below that level in 2005. The Councils developed Framework 4 with the intent of reducing overall fishing effort in both management areas to levels that would have a reasonable likelihood of achieving the rebuilding targets. However, due to concerns over the status of the monkfish resource and the close proximity to the end of the rebuilding plan, NMFS has initiated a SARC and plans to hold an integrated SAW/SARC meeting to perform a monkfish stock assessment from July 9-11, 2007 (SAW 46). The tasks to be performed include a determination of stock status relative to the existing biological reference points (BRPs), a review of the existing BRPs and potential revision or redefinition of the BRPs along with a stock status determination, and review and potential revision of existing control rules for rebuilding the stock relative to the recommended BRPs.

Since the upcoming SAW/SARC will occur after the start of the 2007 fishing year, NMFS intends to delay making a final decision on Framework 4 until after the results of the stock assessment are available. NMFS needs to implement interim measures for the start of the fishing year on May 1, 2007, to constrain effort until Framework 4 becomes effective. These measures will also serve to help end overfishing and assist both stocks in rebuilding.

Other factors that add to the need to take action to modify the monkfish management plan include the lack of direct control on monkfish fishing effort in the NFMA, and the potential impact of changes in multispecies regulations on monkfish fishing effort. The current management system relies solely on the allocation of multispecies DAS to control monkfish effort in the NFMA, since monkfish limited access vessels fishing on a multispecies DAS have no monkfish trip limit. With other opportunities in the multispecies fishery being continually constrained, the risk that effort will shift to the relatively high value monkfish fishery poses a threat to the achievement of the rebuilding goals. Since the monkfish stock status in the NFMA has declined in the past three years, from being nearly rebuilt to being overfished, there is an obvious need to implement more effective effort controls on the monkfish fishery in the NFMA.

### **2.2 Purpose of Action**

The purpose of this action is to implement precautionary management measures that would help end overfishing and aid in rebuilding the monkfish resource while NMFS has the opportunity to conduct a thorough review of the status of the monkfish resource using the best and most recent information available. More specifically, the proposed management measures would reduce fishing effort in the NFMA and maintain current restrictive management measures in the SFMA. NMFS intends to implement these precautionary management measures for the start of the fishing year on May 1, 2007, through interim rulemaking in accordance with section 305(c) of

the Magnuson-Stevens Act. Implementing this action through interim rulemaking is justifiable since the action is necessary to help end overfishing and achieve the goals adopted in the original FMP.

The original FMP goals adopted in 1999 are:

1. To end and prevent overfishing; rebuild and maintain a healthy spawning stock
2. To optimize yield and maximize economic benefits to the various fishing sectors
3. To prevent increased fishing on immature fish
4. To allow the traditional incidental catch of monkfish to occur.

### **3.0 Alternatives including no-action**

The following describes the proposed interim action being considered by NMFS in addition to a range of other potential interim measures that could be adopted to address the need and purpose for this action, including taking no action.

#### **3.1 TAC Alternatives**

NMFS is considering two alternatives for setting target TACs, including the no action alternative. The no action alternative uses the method adopted in Framework 2, and would produce a TAC each year based on the annual NMFS autumn bottom trawl survey and the previous year's monkfish landings. The other alternative, the action being proposed by NMFS (Alternative 1), would fix the TAC for the duration of this interim rule to be consistent with the target TAC recommended by the Councils in Framework 4 to the FMP for the NFMA, but would maintain the FY 2006 target TAC for the SFMA.

##### **3.1.1 TAC Alternative 1 (proposed action)**

The proposed target TAC alternative for the NFMA is based on the method recommended by the PDT for setting target TACs, as contained in Framework 4. As described in detail in APPENDIX I of Framework 4, the PDT derived its target TAC recommendation on the analysis of nine different methods for setting the target TAC. The results indicate a target TAC of 5,000 mt for the NFMA, which represents a 35 percent reduction over the current target TAC, and a 46 percent reduction from FY 2005 landings.

The proposed target TAC alternative of 3,667 mt for the SFMA is equivalent to the FY 2006 target TAC which was established based upon the Framework 2 control rule on May 1, 2006 (71 FR 23871; April 25, 2006). This target TAC is 28 percent less than the target TAC recommended by the Councils in Framework 4 (5,100 mt), and is considered to be more precautionary than the no action alternative in recognition of the status of the monkfish resource in the SFMA with respect to the rebuilding target established in the FMP.

##### **3.1.2 TAC Alternative 2 - No Action**

Under the no action alternative, the current method for setting target TACs established in Framework 2 would remain in place. Framework 2, which became effective on May 1, 2003 (68 FR 22325, April 28, 2003), implemented a target total allowable catch (TAC) setting method that is based upon the relationship between the 3-year running average of the NMFS fall trawl survey biomass index (3-year average biomass index) and established annual biomass index targets

(annual index target). The annual index targets are based on 10 equal increments between the 1999 biomass index (the start of the rebuilding program) and the biomass target ( $B_{\text{target}}$ ), which is to be achieved by 2009 according the rebuilding plan established in the FMP. According to this target TAC setting method, annual target TACs are set based on the ratio of the observed biomass index to the annual index target applied to the monkfish landings for the previous fishing year.

The target TACs that would result from application of the Framework 2 control rule for the 2007 fishing year would be 4,420 mt for the NFMA and 5,208 mt for the SFMA. The target TAC for the NFMA under this alternative would be 12 percent less than the proposed target TAC, while the target TAC for the SFMA under this alternative is 42 percent greater than the proposed target TAC. The calculation of these target TACs according to the Framework 2 control rule is shown in Table 1 below.

**Calculation of FY 2007 TACs (No Action Alternative)**

***FY 2001-FY2005 Monkfish Landings and 2002-2005 Monkfish Biomass Indices for NFMA***

<b>Fishing Year</b>	<b>FY2001 Landings</b>	<b>FY2002 Landings</b>	<b>FY2003 Landings</b>	<b>FY2004 Landings</b>	<b>FY2005 Landings</b>
Landings (mt)	14,853	14,491	14,155	11,666	9,533
<b>Calendar year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>3-Year Avg.</b>
Biomass Index (kg/tow)	2.103	1.925	0.638	1.078	1.214

***FY 2001-FY2005 Monkfish Landings and 2002-2005 Monkfish Biomass Indices for SFMA***

<b>Fishing Year</b>	<b>FY2001 Landings</b>	<b>FY2002 Landings</b>	<b>FY2003 Landings</b>	<b>FY2004 Landings</b>	<b>FY 2005 Landings</b>
Landings (mt)	11,069	7,478	12,198	6,078	9,656
<b>Calendar year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>3-Year Avg.</b>
Biomass Index (kg/tow)	1.253	0.828	0.742	0.765	0.778

<b><i>2006 Monkfish Biomass Indices</i></b>	<b>2006 Index</b>	<b>3-Year Avg</b>
<b>NFMA</b>	1.066	0.927
<b>SFMA</b>	0.807	0.771

<b>Projected FY 2007 TACs</b>	<b>2006 Target Index</b>	<b>3-Year Avg</b>	<b>2007 TACs</b>
<b>NFMA</b>	2.00	0.927	4,420
<b>SFMA</b>	1.43	0.771	5,208

**Table 1 - FY2007 TACs under TAC Alternative 2 (no action)**



### **3.2 NFMA DAS Alternatives**

In accordance with the Councils recommendation in Framework 4, NMFS is proposing requiring monkfish limited access vessels that exceed the monkfish incidental limit to call in a monkfish-only or monkfish/multispecies DAS when fishing in the NFMA, as they are currently required to do in the SFMA. In the SFMA, all vessels exceeding the applicable monkfish incidental limits (which vary depending on gear, DAS program fishery or area) are required to call in a monkfish DAS. This interim rule proposes no changes to the DAS requirement in the SFMA.

#### **3.2.1 NFMA DAS Alternative 1 (proposed action)**

A monkfish limited access vessel intending to, or anticipating the possibility that they will, exceed the monkfish incidental catch limit will be required to call in a monkfish-only or monkfish/multispecies DAS when fishing in the NFMA. Under the current regulations, monkfish limited access vessels fishing on a multispecies DAS have no monkfish trip limit and, therefore, have no reason or requirement to call in a monkfish DAS. Requiring limited access monkfish vessels to call in a monkfish DAS when harvesting monkfish in excess of the incidental catch limit in the NFMA will facilitate the monitoring of directed monkfish effort in the NFMA, which is now only possible by analyzing catch data and making assumptions about whether the effort is incidental or directed. To fish under a monkfish-only DAS in the NFMA, a vessel would have to fish under the existing Monkfish Gillnet Exempted Fishery in the Gulf of Maine (gillnets only), or any other monkfish exempted fishery that is established in the future under the Northeast Multispecies FMP.

#### **3.2.2 NFMA DAS Alternative 2 – no action**

A monkfish limited access vessel fishing on a multispecies DAS will not be required to call in a monkfish DAS. Such vessels could target monkfish on a multispecies DAS but a monkfish trip limit would be necessary to maintain catches below the target TAC.

### **3.3 NFMA Incidental Limit Alternatives**

In accordance with the Councils recommendation in Framework 4, NMFS is proposing to reduce the monkfish incidental catch limit in the NFMA to the level that was in place prior to Framework 2, which took effect May 1, 2003. This limit would apply to all permit Category E vessels and, if NFMA DAS Alternative 1 is adopted, to all monkfish limited access vessels not fishing on a monkfish DAS in the NFMA. No changes are proposed to the monkfish incidental catch limits in the SFMA. The PDT and Monkfish Committee recommended to include this alternative in Framework 4, primarily because it reduces the incentive to target monkfish when not on a monkfish DAS, and available landings data indicate that a reduction in the incidental catch limit would not cause an increase in monkfish discards since most Category E vessels are currently fishing at or below the proposed incidental limit.

#### **3.3.1 NFMA Incidental limit Alternative 1 (proposed action)**

Under this alternative, permit Category E vessels on a multispecies DAS, and limited access vessels not fishing on a multispecies DAS, but not a monkfish DAS would be limited to 300 lbs. (tail wt.) per DAS or 25% (based on tail weight or its equivalent) of the total weight of fish on board, whichever is less. This is the incidental limit that was in place under the original FMP

regulations. Based on a review of catch data, NMFS does not expect this lower limit to increase bycatch (discards) since vessels catching less than 300 lbs., or even the higher incidental limit of 400 lbs. have averaged well below those limits, suggesting that the limits are not restrictive and are not being used to conduct a non-DAS targeted fishery.

### 3.3.2 NFMA Incidental limit Alternative 2 – no action

Under this alternative, permit Category E vessels on a multispecies DAS, and limited access vessels not fishing on a multispecies DAS, but not a monkfish DAS would be limited to 400 lbs. (tail wt.) per DAS or 50% (based on tail weight or its equivalent) of the total weight of fish on board, whichever is less. This is the incidental limit that was implemented in 2003 under the Framework 2 regulations. The reason Framework 2 increased the incidental limit is that, at that time, the northern stock was nearly rebuilt, and there were no other regulations to relax to allow for achievement of optimum yield since limited access vessels fishing on a multispecies DAS already had no monkfish trip limit or monkfish DAS restrictions.

### 3.4 Trip Limit/DAS Alternatives

The Councils considered several options for trip limits and DAS for each management area in Framework 4 that were calculated after taking into account the expected incidental catch of monkfish by vessels not on a monkfish DAS. In this interim action, NMFS is narrowing the range of options considered by the Councils to only include the DAS and trips limits that would result from the proposed target TACs that were recommended by the Councils for the NFMA, the current target TAC and associated trip limits and DAS for the SFMA, and the trip limits and DAS calculated for the target TACs that would result from the application of the Framework 2 control rule if no action were to be taken.

While the DAS allocations in the two areas may be different, they are not additive, and the higher DAS allocation is the maximum DAS that a vessel may fish. In other words, while the original FMP set a 40 DAS baseline, vessels may not fish the allocation in each area up to the maximum of 40 DAS combined, but are restricted to fishing the maximum of the highest of the two allocations. If the DAS are the same in both areas, then that is the total number of DAS a vessel can fish in either area. If the DAS are different in each area, a vessel can fish up to the allocation in the area with the lower number of DAS and fish the difference in the other area.

#### 3.4.1 SFMA Trip limits and DAS Alternatives

The following

Table 2 summarizes the SFMA trip limits/DAS alternatives described in the subsequent text:

	TAC	Trip Limit (lbs. tail weight)	DAS
<b>TAC Alternative 1</b>	<b>3,667 mt</b>	550/450	<b>12</b>
<b>TAC Alternative 2 (no action)</b>	<b>5,208 mt</b>	550/450	<b>24</b>

**Table 2 - Summary of SFMA Trip Limits/DAS Alternatives for each TAC alternative, proposed action is shaded.**

The trip limit and DAS calculations are based on the method that has been used to calculate SFMA trip limits/DAS since the adoption of Framework 2 in 2003 (see Section 1.2.1.1). In the SFMA, DAS were calculated with a trip limit (in tail weight) of 550 lbs./DAS and 450 lbs./DAS for permit categories ACG and BDH, respectively, as in the current plan. In the SFMA calculation, the expected incidental catch is a known value based on the previous year's landings by vessels not on a monkfish DAS (i.e., category E vessels, dredge vessels and unknown vessels). The full report on the analysis of SFMA trip limits and DAS is provided in Appendix II of Framework 4.

### **3.4.2 NFMA Trip limits and DAS Alternatives**

In the NFMA, the calculation of trip limits and DAS is more complicated, but is essentially the same for most alternatives. For two of the five NFMA alternatives considered in Framework 4, the DAS options from the SFMA calculation were used to determine the appropriate trip limit in order to provide the possibility of a consistent DAS allocation across both management areas. One of the NFMA alternatives considered in Framework 4 was based on the 40 monkfish DAS allocation baseline from the original FMP. Another NFMA alternative included no monkfish trip limit for vessels fishing on a monkfish DAS, while another alternative calculates the trip limit that would apply if multispecies/monkfish vessels were not required to call in a monkfish DAS. One of the complicating factors is determining the incidental catch portion of the total TAC, which would now include the catch of limited access monkfish vessels not on a monkfish DAS (i.e., only on a Northeast Multispecies DAS), in addition to the catch by Category E (open access) and dredge vessels. The full report on the analysis of trip limits and DAS for the NFMA is provided in Appendix II to Framework 4. The results are summarized in Table 3.

The analysis of the NFMA trip limit and DAS alternatives provided by the Councils in Framework 4 provides the basis for the analysis of the trip limits and DAS options for this interim rule. Under the proposed target TAC of 5,000 mt, NMFS is proposing the DAS and trip limit option of 31 DAS at 1,250 lbs. tail weight for Category A and C vessels and 470 lbs. tail weight for Category B and D vessels, which was also the Councils' preferred alternative. If no action were taken and a target TAC of 4,420 mt were implemented for the NFMA under the Framework 2 control rule, NMFS would select a DAS allocation and trip limit option within the range of the possibilities presented in Framework 4 under the no action alternative that has been calculated to achieve this target TAC.

The following Table 3 summarizes the NFMA trip limits/DAS alternatives described and analyzed in Framework 4:

TAC Alternatives	TAC (mt)	TAC (lbs.)	Incidental limit	Estimated incidental landings (lbs.)	AC allocation of TAC (lbs.)	BD allocation of TAC (lbs.)	Trip Limit AC (tail weight/DAS) (lbs.)	Trip Limit BD (tail weight/DAS) (lbs.)	DAS (Option #)
TAC Alt. 1 2007-2008	5,000	11,023,113	Inc. Limit Alt.1 25%/300 lbs.	3,364,401	4,130,908	3,527,804	1250	886	23 (1)
				2,791,523	4,439,903	3,791,687	<b>1250</b>	<b>470</b>	<b>31 (2)</b>
				2,326,739	4,690,595	4,005,779	869	338	40 (3)
				4,000,000	3,792,481	3,230,632	None (No action)	None (No action)	21 (4)
				1,713,357	5,021,437	4,288,319	168	152	No action (5, MF DAS not req.'d)
			Inc. Limit Alt.2 50%/400 lbs. (no action)	3,705,220	3,947,079	3,370,814	1250	683	23 (1)
				3,014,084	4,319,859	3,689,170	1250	435	31 (2)
				2,453,358	4,622,300	3,947,455	787	327	40 (3)
				4,000,000	3,792,481	3,230,632	None (No action)	None (No action)	21(4)
				1,713,357	5,021,437	4,288,319	168	152	No action (5, MF DAS not req.'d)
TAC Alt. 3 FY2007 no action, 2006 survey up 50%	5,132	11,314,123	Inc. Limit Alt.1 25%/300 lbs.	2,599,382	4,700,502	4,014,239	1250	452	34 (1)
				2,326,739	4,847,558	4,139,826	1250	367	40 (2)
				2,326,739	4,847,558	4,139,826	1250	367	40 (3)
				4,000,000	3,949,627	3,364,497	None (No action)	None (No action)	22 (4)
				1,713,357	5,178,401	4,422,366	177	161	No action (5, MF DAS not req.'d)
				1,713,357	5,178,401	4,422,366	None (No action)	None (No action)	No action (6, MF DAS not req.'d)
			Inc. Limit Alt.2 50%/400 lbs.(no action)	2,782,281	4,601,851	3,929,991	1250	426	34 (1)
				2,453,358	4,779,264	4,081,502	1060	353	40 (2)
				2,453,358	4,779,264	4,081,502	1060	353	40 (3)
				4,000,000	3,949,627	3,364,497	None (No action)	None (No action)	22 (4)
				1,713,357	5,178,401	4,422,366	177	161	No action (5, MF DAS not req.'d)
				1,713,357	5,178,401	4,422,366	None (No action)	None (No action)	No action (6, MF DAS not req.'d)
				TAC Alt.3 FY2007 no action, 2006 Survey down 50%	3,471	7,652,245	Inc. Limit Alt.1 25%/300 lbs.	3,888,928	2,029,834
3,587,679	2,192,320	1,872,246	493					222	20 (2)
2,326,739	2,872,438	2,453,068	225					137	40 (3)
4,500,000	1,702,212	1,450,033	None (No action)					None (No action)	7 (4)
1,713,357	3,203,280	2,735,608	89					76	No action (5, MF DAS not req.'d)
1,713,357	3,203,280	2,735,608	None (No action)					None (No action)	No action (6, MF DAS not req.'d)
Inc. Limit Alt.2 50%/400 lbs.(no action)	4,338,023	1,787,604	1,526,618				506	208	16 (1)
	3,974,589	1,983,631	1,694,025				380	180	20 (2)
	2,453,358	2,804,143	2,394,745				215	132	40 (3)
	4,500,000	1,702,212	1,450,033				None (No action)	None (No action)	7 (4)
	1,713,357	3,203,280	2,735,608				89	76	No action (5, MF DAS not req.'d)
	1,713,357	3,203,280	2,735,608				None (No action)	None (No action)	No action (6, MF DAS not req.'d)
	1,713,357	3,203,280	2,735,608				None (No action)	None (No action)	No action (6, MF DAS not req.'d)

**Table 3 - Analysis of NFMA trip limit/DAS alternatives contained in Framework 4. Shaded cells are those where the allowable trip limit is lower than the incidental catch limit. The bolded text under Option 2 is the NMFS' recommendation, which was also the Councils' recommendation in Framework 4.**

### **3.4.3 Moratorium on directed fishing**

The original FMP called for ending the directed monkfish fishery in Year 4 of the rebuilding plan, that is, no monkfish DAS would be allocated, and all vessels would be operating under an incidental catch limit. That provision was replaced in Framework 2 by measures that would allow for annual adjustment to DAS and trip limits in the SFMA, and continuation of the directed fishery with no trip limit while on a multispecies DAS in the NFMA. At the time Framework 2 was being developed, the northern stock was nearly rebuilt, and additional restrictions on catch (other than the multispecies DAS controls) did not appear to be warranted, and, in fact, Framework 2 raised the NFMA incidental catch limit. Since there are only three years remaining in the rebuilding plan, and both stocks are still below the minimum biomass threshold as measured by the survey index, NMFS is considering closure of the directed fishery to achieve the rebuilding goals established in the FMP.

NMFS is considering implementing this option only for the SFMA since the target TAC currently in effect for FY 2006 does not appear to be having a substantial impact on rebuilding the monkfish stock in this area, based upon the results of the 2006 NMFS fall trawl survey. However, this lack of response in the fall trawl survey index may be due to two factors: (1) The ability of vessels to utilize up to 10 carryover DAS in addition to the 12 DAS that they have been allocated for the SFMA during FY 2006, and (2) the fact that many vessels appear to have utilized most of their available monkfish DAS during the first half of the fishing year. In fact, the most recent preliminary fishery statistics for the 2006 monkfish fishery, which include landings from May through December 2006, indicate that landings in the SFMA are 21 percent over the target TAC of 3,667 mt.

If this alternative were implemented in both management areas, monkfish limited access vessels would have no monkfish DAS, and all vessels, including those fishing in the NFMA on a multispecies DAS would operate under the applicable incidental catch limit. This action would remain in effect until the stocks rebuild and the Councils develop a program for allowing directed fishing to achieve optimum yield from the rebuilt stocks.

If this alternative is adopted for either the SFMA or both management areas, then the DAS and trip limit alternatives under consideration in Sections 3.2 and 3.4, and measures other than modifications to the incidental limits (in the NFMA and in the Scallop Access Areas), would not be relevant. All of the target TAC(s) would be allocated to fisheries operating under their respective incidental catch limits in the area(s) closed to directed fishing.

### **3.5 DAS Carryover Alternatives**

In Framework 4, the Councils considered modifying or eliminating the DAS carryover provision in the FMP, to reduce the potential dilution of the effort control program. However, the Councils decided to select the no action alternative as their preferred action noting that as DAS are reduced, the economic need for carryover DAS is more urgent. In this action, NMFS is considering prohibiting the use of carryover DAS during the period of time this temporary action is in effect. If the use of carryover DAS is prohibited under this interim rule, NMFS may

restore all or part of these carryover DAS for use during the remainder of FY 2007 once the results of the July 2007 monkfish stock assessment area available.

### **3.5.1 DAS Carryover Alternative 1 (proposed action)**

Under this alternative, the provision enabling vessels to carryover unused monkfish DAS to the next year would be temporarily eliminated. As a result, vessels would start FY 2007 with the DAS allocated under whichever provision is adopted in Section 3.4 of this action. A prohibition on the use of carryover DAS is being considered for this interim rule since available landings data for FY 2006 (May through December 2006) indicate that SFMA monkfish landings were already 21 percent over the FY 2006 target TAC. This overage in the target TAC is most likely due to the use of DAS carried over from FY 2005. Therefore, in order to prevent the interim target TACs in either management area from being over-harvested, NMFS is proposing that the use of carryover DAS be prohibited under this interim rule.

### **3.5.2 DAS Carryover Alternative 2 (no action)**

Under this alternative, vessels would be able to carryover up to 10 unused monkfish DAS from FY 2006 to be used during FY 2007, as currently authorized through the DAS carryover provision contained in the Monkfish FMP.

## **3.6 Permit Category H (NC/VA) Fishery boundary**

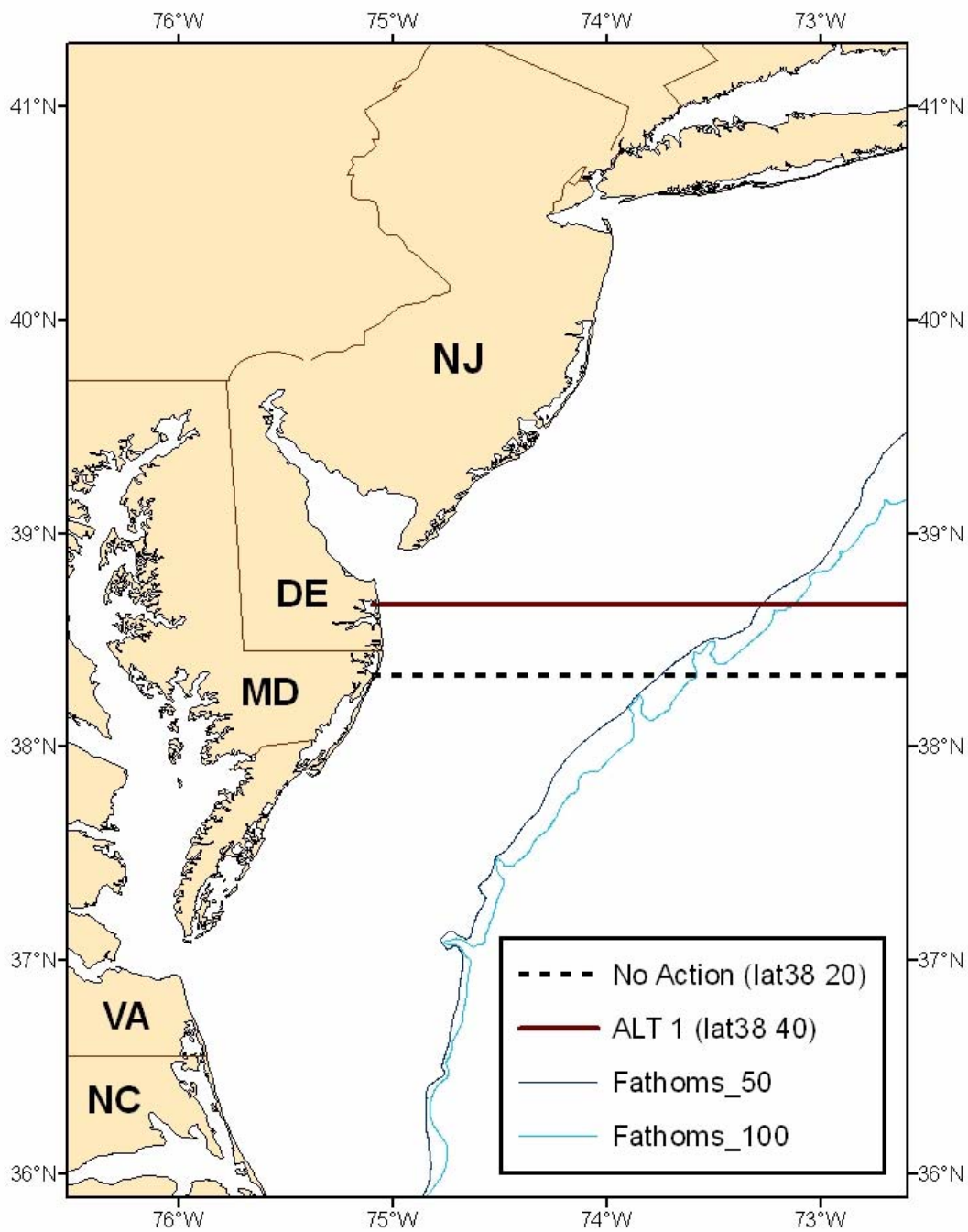
Based on the Councils' recommendation in Framework 4, NMFS is proposing a change to the boundary of the fishery that was established in Amendment 2 for vessels that did not qualify for a limited access permit in the initial FMP. A total of seven vessels qualified and only five or six are actively fishing. These vessels have a limited season when monkfish are available in late spring, and are constrained by the closures in place to protect sea turtles, such that the area available is approximately 20 miles wide. At the request of the industry, the Councils considered moving the boundary northward 20 miles in Framework 4, which would increase the opportunity for the affected vessels to prosecute their fishery within the allocation of DAS and trip limits, and provide some additional area to move into, in the event sea turtles appear in the open area. The two alternatives considered by the Councils that are now being considered by NMFS for inclusion in this interim rule are shown in Figure 2.

### **3.6.1 Category H Fishery boundary Alternative 1 (proposed action)**

This alternative would move the northern boundary of the Category H fishery from 38°20'N to 38°40'N.

### **3.6.2 Category H Fishery boundary Alternative 2 (no action)**

This alternative would retain the current northern boundary of the Category H fishery at 38°20'N.



**Figure 2 - Permit Category H Fishery Boundary Alternatives**

### **3.7 Scallop Closed Area Access Program Monkfish Incidental Limit**

During the development of Framework 4, representatives of the scallop industry requested that the Councils clarify their intent with regards to the monkfish incidental catch limits applicable to limited access scallop dredge vessels fishing in the Closed Area Access Programs. Prior to Scallop Framework 18, those vessels were on a Scallop DAS, and the incidental limit was 300 lbs. tail wt. per DAS, if the vessel held a monkfish limited access permit. In Framework 18, however, the Closed Area Access program was modified, such that participating vessels were given a scallop trip limit, and no longer charged a DAS, or a DAS equivalent. As a result, NMFS informed those vessels that the monkfish incidental limit would not be that applicable to vessels on a scallop DAS, but rather that which applied to vessels fishing with a dredge and not on a scallop DAS. That limit is 50 lbs. tail weight per day up to a maximum of 150 lbs. tail weight per trip. NMFS is considering implementing the change to the incidental limit applicable to limited access scallop vessels fishing in the access areas, as recommended by the Councils, in this interim rule.

#### **3.7.1 Scallop Closed Area Access Program Monkfish Incidental Limit Alternative 1 (proposed action)**

This alternative would allow limited access scallop dredge vessels that hold monkfish limited access permits and fishing on Scallop Closed Area Access trips, not on a scallop DAS, to retain the same monkfish incidental limit that applies to such vessels fishing on a DAS outside the Closed Area Access programs, or 300 lbs. tail wt. per day. Under this alternative, the time being counted for purposes of determining the total amount of monkfish allowed would be via the VMS as only the time in the closed area, not to include steaming time outside the closed area. Vessels participating in this program are prohibited from fishing outside the areas on Closed Area Access trips under the existing terms of the program.

#### **3.7.2 Scallop Closed Area Access Program Monkfish Incidental Limit Alternative 2, no action**

Under the no action alternative, limited access scallop dredge vessels, including those that hold limited access monkfish permits, fishing on Scallop Closed Area Access trips, not on a scallop DAS, may retain the same monkfish incidental limit that applies to other vessels fishing with a dredge and not on a DAS, or 50 lbs. tail wt. per day to a maximum of 150 lbs tail weight per trip.

### **4.0 Affected Environment**

A map showing the area covered by the monkfish FMP, including the NFMA and SFMA boundary and three-digit statistical areas is provided in Figure 1 for reference. This section provides updated information on the environment affected by this action, including updated information on the status of the monkfish resource. It is important to note that the 2005 fishing year is the most recent year for which complete information is available.

#### **4.1 Biological Environment**

This section supplements and updates the biological environment described in the FSEIS for Amendment 2.



#### **4.1.1 Monkfish stock status**

##### **4.1.1.1 Most Recent Stock Assessment (SAW 40)**

The Northeast Fisheries Science Center (NEFSC) held a monkfish stock assessment in the fall of 2004 (SAW 40). The data used in the 2004 assessment included NEFSC research survey data, data from the 2001 and 2004 Cooperative Monkfish Surveys, commercial fishery data from vessel trip reports, dealer landings records, and observer data. In summary, the Stock Assessment Review Committee concluded:

*Based on existing reference points, the resource is not overfished in either stock management area (north or south). Fishing mortality rates ( $F$ ) estimated from NEFSC and Cooperative survey data are currently not sufficiently reliable for evaluation of  $F$  with respect to the reference points.*

With respect to recruitment, the report noted evidence of increased recruitment in the NFMA during the 1990s, particularly for the 1999 year class. Conversely, the SAW 40 report noted that in the SFMA, recruitment appears to have fluctuated without trend during the 1990s. However, there are some indications that the 2002 year class in the SFMA may be above average.

In regards to estimates of stock biomass, the SAW 40 report noted that the 3-year moving average (2001-2003) of the survey index was above  $B_{\text{threshold}}$  in the NFMA and equivalent to  $B_{\text{threshold}}$  in the SFMA. Due to the timing of data availability, the assessment was not able to use 2004 cooperative survey trawl efficiency analysis to calculate swept area biomass estimates. Assuming intermediate trawl efficiencies from the 2001 cooperative survey, however, and 2004 nominal tow distances, swept area biomass estimates for the NFMA from the 2004 cooperative survey were 25-percent less than the 2001 cooperative swept area biomass estimates for this survey, while swept area biomass estimates for the SFMA from the 2004 cooperative survey were 66-percent higher than the 2001 estimates.

##### **4.1.1.2 Upcoming Stock Assessment (SAW 46)**

Due to concerns over the status of the monkfish resource and the fact that monkfish is in year 7 of a 10-year rebuilding plan, NMFS has initiated a Stock Assessment Review Committee (SARC) and plans to hold an integrated Stock Assessment Workshop (SAW)/SARC meeting to perform a monkfish stock assessment during July 9-11, 2007. The tasks to be performed include a determination of stock status relative to the existing biological reference points (BRPs), a review of the existing BRPs and potential revision or redefinition of the BRPs along with a stock status determination, and review and potential revision of existing control rules for rebuilding the stock relative to the recommended BRPs. The results of this stock assessment will then be used in making a final decision on Framework 4.

##### **4.1.1.3 2006 Fall Survey Results**

The FMP uses the NMFS fall bottom trawl survey to determine monkfish stock status (biomass) relative to management reference points. To smooth out year-to-year variability in the survey, a three-year running average is used to evaluate the stock against the MSY proxy target, and minimum biomass reference points. As shown in

Table 4, both northern and southern stock components are below the minimum biomass threshold, and are, therefore, overfished. This is a change of status from 2004 when both stocks were not overfished.

kg/tow	2000	2001	2002	2003	2004	2005	2006	3-yr. Ave.	Bthreshold	Btarget
<b>NFMA</b>	2.495	2.052	2.103	1.925	0.638	1.078	1.066	0.927	1.25	2.5
<b>SFMA</b>	0.477	0.708	1.253	0.828	0.742	0.765	0.807	0.771	0.93	1.86

**Table 4 - 2000 through 2006 NMFS autumn bottom trawl survey indices of monkfish abundance and biomass reference points.**

Framework 2, adopted in 2003, established a method for evaluating on an annual basis the rebuilding progress of the fishery. That method compares the three-year running average of the biomass index to annual biomass targets which are ten equal increments between the 1999 observed value (at the start of the 10-year rebuilding program) and the 2009 target (Btarget). The relationship of the observed 3-year average to the annual target value is applied to the previous year's landings to set target TACs for the upcoming year. The annual targets and the 1999-2005 observed values are shown in Figure 3 and Figure 4 for the NFMA and SFMA, respectively. The biomass indices remained essentially flat in 2006, and the northern and southern stocks are approximately 54% and 46% below their 2006 targets, respectively.

### Monkfish Northern Stock Biomass Rebuilding

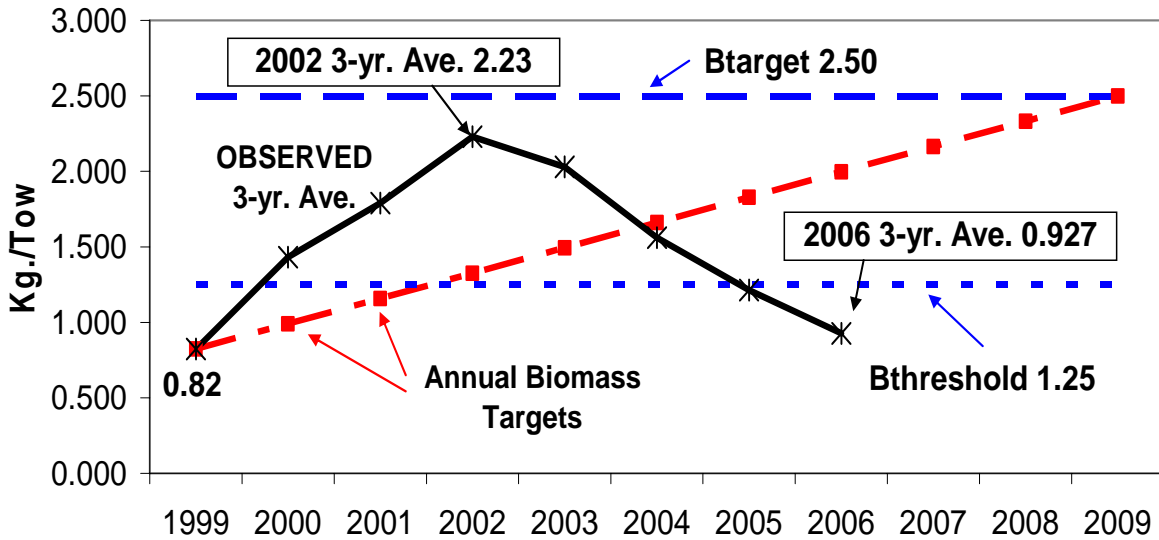


Figure 3 - NFMA biomass index (2005 three-year running average) relative to annual rebuilding targets.

### Monkfish Southern Stock Biomass Rebuilding

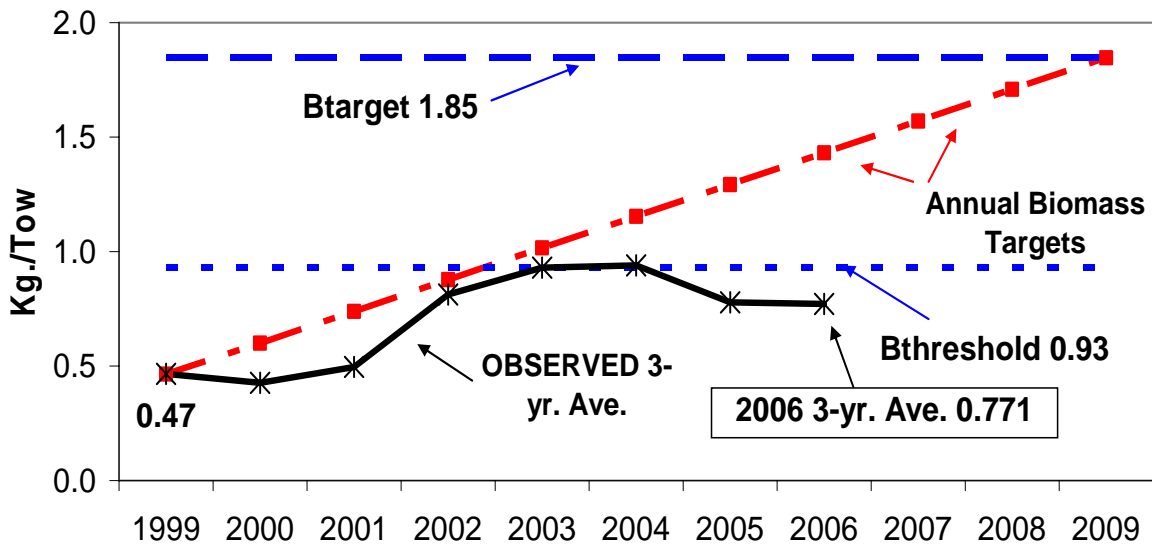
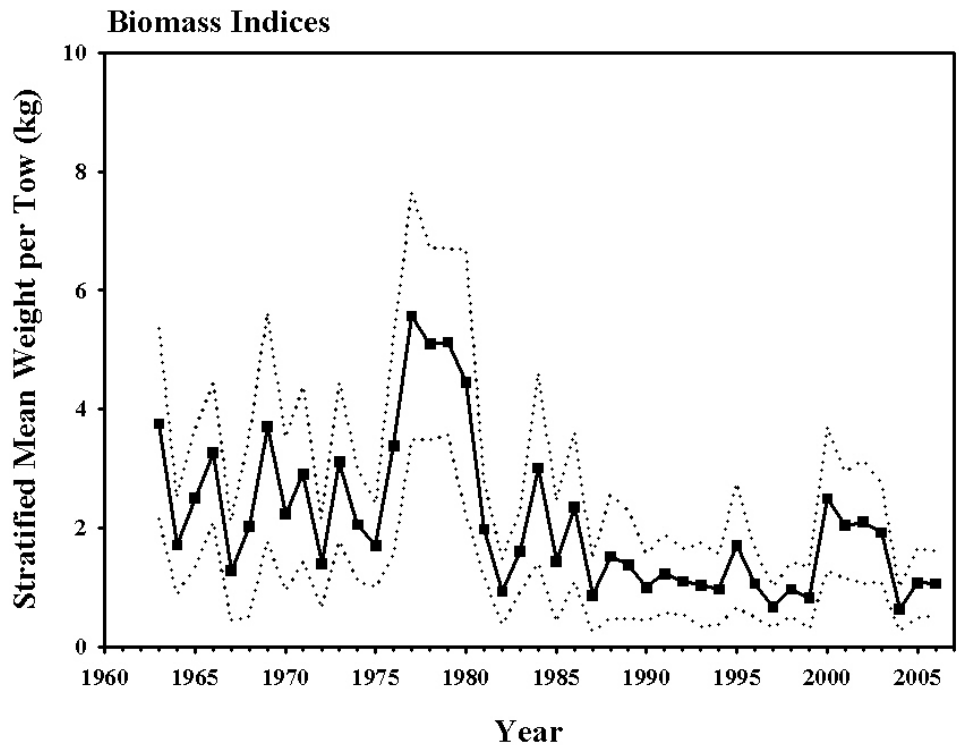
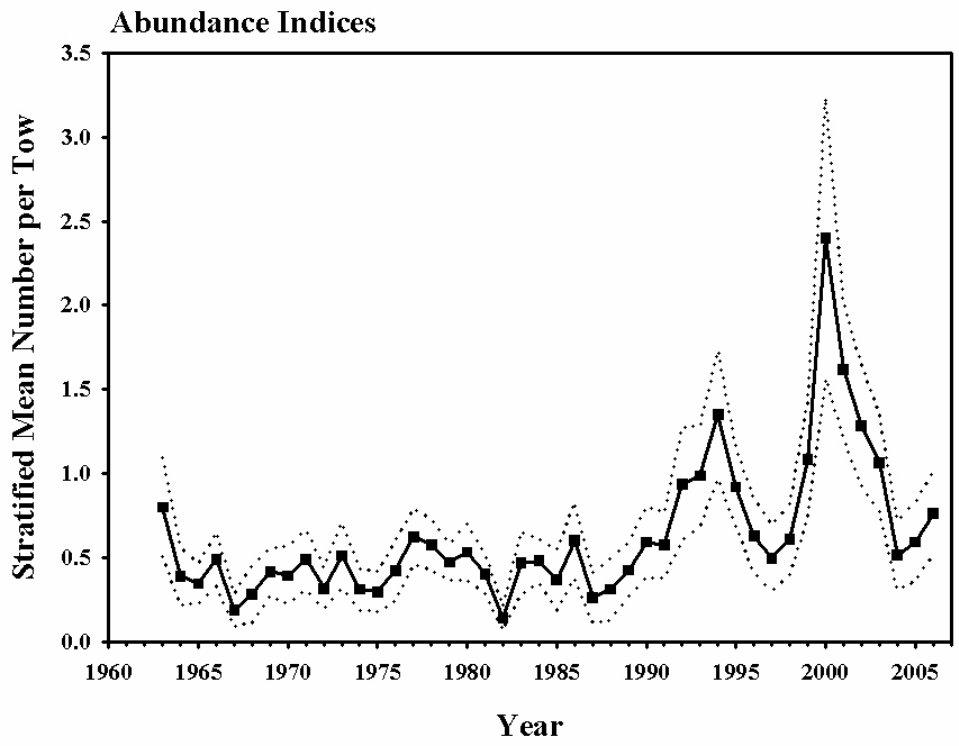


Figure 4 - SFMA biomass index (2005 three-year running average) relative to annual rebuilding targets.



**Figure 5 - NFMA Fall Survey Biomass indices 1963-2006**



**Figure 6 - NFMA Fall Survey Abundance indices 1963-2006**

S

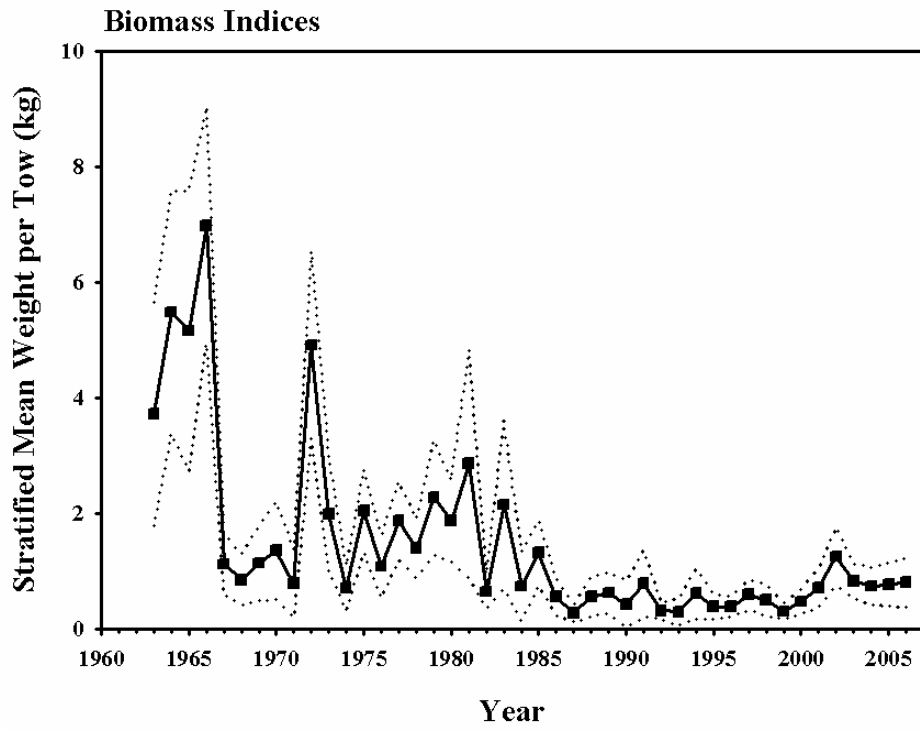


Figure 7 - SFMA Fall Survey Biomass indices 1963-2006

S

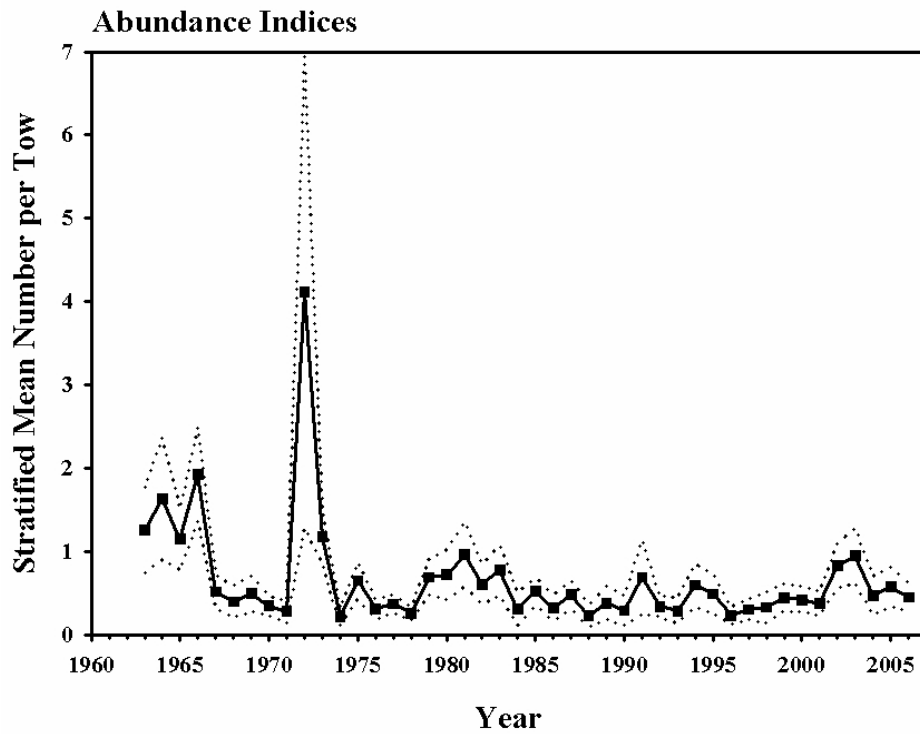


Figure 8 - SFMA Fall Survey Abundance indices 1963-2006

#### 4.1.2 Marine Mammals and Protected Species

The following protected species are found in the environment utilized by the monkfish fishery. A number of them are listed under the Endangered Species Act of 1973 (ESA) as endangered or threatened, while others are identified as protected under the Marine Mammal Protection Act of 1972 (MMPA). Two right whale critical habitat designations are located in the area in which the monkfish fishery is prosecuted. The information provided here is summary of the full descriptions provided in the Amendment 2 FSEIS. Actions taken to minimize the interaction of the fishery with protected species are described in Section 1.2.4.2 of this document.

##### ***Cetaceans***

	<b><i>Status</i></b>
Northern right whale ( <i>Eubalaena glacialis</i> )	Endangered
Humpback whale ( <i>Megaptera novaeangliae</i> )	Endangered
Fin whale ( <i>Balaenoptera physalus</i> )	Endangered
Blue whale ( <i>Balaenoptera musculus</i> )	Endangered
Sei whale ( <i>Balaenoptera borealis</i> )	Endangered
Sperm whale ( <i>Physeter macrocephalus</i> )	Endangered
Minke whale ( <i>Balaenoptera acutorostrata</i> )	Protected
Pilot whale ( <i>Globicephala</i> spp.)	Protected
Spotted dolphin ( <i>Stenella frontalis</i> )	Protected
Risso's dolphin ( <i>Grampus griseus</i> )	Protected
White-sided dolphin ( <i>Lagenorhynchus acutus</i> )	Protected
Common dolphin ( <i>Delphinus delphis</i> )	Protected
Bottlenose dolphin: coastal stocks ( <i>Tursiops truncatus</i> )	Protected
Harbor porpoise ( <i>Phocoena phocoena</i> )	Protected

##### ***Seals***

Harbor seal ( <i>Phoca vitulina</i> )	Protected
Gray seal ( <i>Halichoerus grypus</i> )	Protected
Harp seal ( <i>Phoca groenlandica</i> )	Protected
Hooded seal ( <i>Cystophora cristata</i> )	Protected

##### ***Sea Turtles***

Leatherback sea turtle ( <i>Dermochelys coriacea</i> )	Endangered
Kemp's ridley sea turtle ( <i>Lepidochelys kempii</i> )	Endangered
Green sea turtle ( <i>Chelonia mydas</i> )	Endangered*
Loggerhead sea turtle ( <i>Caretta caretta</i> )	Threatened

##### ***Fish***

Shortnose sturgeon ( <i>Acipenser brevirostrum</i> )	Endangered
Atlantic salmon ( <i>Salmo salar</i> )	Endangered

##### ***Critical Habitat Designations***

Right whale Cape Cod Bay  
Great South Channel

*\*Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered.*

Although salmon belonging to the Gulf of Maine distinct population segment (DPS) of Atlantic salmon occur within the general geographical area covered by the Monkfish FMP, they are unlikely to occur in the area where the fishery is prosecuted given their numbers and distribution. Therefore, the DPS is not likely to be affected by the monkfish fishery. Similarly, there is no evidence to suggest that operation of the monkfish fishery has any adverse effects on the habitat features (e.g., copepod abundance) in the specific areas designated as right whale critical habitat. Therefore, operation of the monkfish fishery is not expected to have effects on critical habitat for right whales that has been designated for Cape Cod Bay and the Great South Channel.

It is expected that all of the remaining species identified have the potential to be affected by the operation of the monkfish fishery. However, given differences in abundance, distribution and migratory patterns, it is likely that effects will occur as well as the magnitude of effects when they do occur will vary amongst the species. Summary information is provided here that describes the general distribution of cetaceans, pinnipeds, and sea turtles within the management area for the Monkfish FMP as well as the known interactions of gear used in the monkfish fishery with these protected species. Additional background information on the range-wide status of marine mammal and sea turtle species that occur in the area can be found in a number of published documents. These include sea turtle status reviews and biological reports (NMFS and USFWS 1995; Hirth 1997; USFWS 1997; Marine Turtle Expert Working Group (TEWG) 1998 & 2000), recovery plans for Endangered Species Act-listed sea turtles and marine mammals (NMFS 1991; NMFS and USFWS 1991a; NMFS and USFWS 1991b; NMFS and USFWS 1992; NMFS 1998; USFWS and NMFS 1992; NMFS 2005), the marine mammal stock assessment reports (e.g., Waring *et al.* 2005), and other publications (e.g., Clapham *et al.* 1999; Perry *et al.* 1999; Wynne and Schwartz 1999; Best *et al.* 2001; Perrin *et al.* 2002).

### **Sea Turtles**

Loggerhead, leatherback, Kemp's ridley, and green sea turtles occur seasonally in southern New England and Mid-Atlantic continental shelf waters north of Cape Hatteras. In general, turtles move up the coast from southern wintering areas as water temperatures warm in the spring (James *et al.* 2005; Morreale and Standora 2005; Braun-McNeill and Epperly 2004; Morreale and Standora 1998; Musick and Limpus 1997; Shoop and Kenney 1992; Keinath *et al.* 1987). The trend is reversed in the fall as water temperatures cool. By December, turtles have passed Cape Hatteras, returning to more southern waters for the winter (James *et al.* 2005; Morreale and Standora 2005; Braun-McNeill and Epperly 2004; Morreale and Standora 1998; Musick and Limpus 1997; Shoop and Kenney 1992; Keinath *et al.* 1987). Hard-shelled species are typically observed as far north as Cape Cod whereas the more cold-tolerant leatherbacks are observed in more northern Gulf of Maine waters in the summer and fall (Shoop and Kenney 1992; STSSN database).

**Sea turtles are known to be captured in gillnet and trawl gear; gear types that are used in the monkfish fishery. The following table,**

Table 5, provides the most recent information on observed turtle interactions with the monkfish fishery for the period 2003 – Aug. 2006. The data has not been analyzed with respect to trends or impact of effort controls and/or sea turtle closures. Gillnet gear is the most prevalent gear used in the SFMA monkfish fishery.

<b>Year</b>	<b>Month</b>	<b>Species</b>	<b>Statistical Area</b>	<b>Gear Type</b>
2003	August	Unknown	537	Sink gillnet
2003	August	Unknown	537	Sink gillnet
2003	August	Unknown	537	Sink gillnet
2004	May	Loggerhead	621	Sink gillnet
2004	June	Loggerhead	612	Sink gillnet
2004	October	Leatherback	615	Sink gillnet
2004	November	Leatherback	613	Sink gillnet

**Table 5 - Turtle Interactions in Gillnet Gear Targeting Monkfish, 2003-Sept 2005.**

Source: NEFSC Observer Data

#### **Large Cetaceans (Baleen Whales and Sperm Whale)**

The western North Atlantic baleen whale species (Northern right, humpback, fin, sei, and minke) follow a general annual pattern of migration from high latitude summer foraging grounds, including the Gulf and Maine and Georges Bank, and low latitude winter calving grounds (Perry *et al.* 1999; Kenney 2002). However, this is an oversimplification of species movements, and the complete winter distribution of most species is unclear (Perry *et al.* 1999; Waring *et al.* 2005). Studies of some of the large baleen whales (right, humpback, and fin) have demonstrated the presence of each species in higher latitude waters even in the winter (Swingle *et al.* 1993; Wiley *et al.* 1995; Perry *et al.* 1999; Brown *et al.* 2002).

In comparison to the baleen whales, sperm whale distribution occurs more on the continental shelf edge, over the continental slope, and into mid-ocean regions (Waring *et al.* 2005). However, sperm whales distribution in U.S. EEZ waters also occurs in a distinct seasonal cycle (Waring *et al.* 2005). Typically, sperm whale distribution is concentrated east-northeast of Cape Hatteras in winter and shifts northward in spring when whales are found throughout the Mid-Atlantic Bight (Waring *et al.* 2005). Distribution extends further northward to areas north of Georges Bank and the Northeast Channel region in summer and then south of New England in fall, back to the Mid-Atlantic Bight (Waring *et al.* 1999).

Gillnet gear is known to pose a risk of entanglement causing injury and death to large cetaceans. Right whale, humpback whale, and minke whale entanglements in gillnet gear have been documented (Johnson *et al.* 2005; Waring *et al.* 2005). However, it is often not possible to attribute the gear to a specific fishery.

#### **Small Cetaceans (Dolphins, Harbor Porpoise and Pilot Whale)**

Numerous small cetacean species (dolphins, pilot whales, harbor porpoise) occur within the area from Cape Hatteras through the Gulf of Maine. Seasonal abundance and distribution of each species in Mid-Atlantic, Georges Bank, and/or Gulf of Maine waters varies with respect to life



history characteristics. Some species primarily occupy continental shelf waters (e.g., white sided dolphins, harbor porpoise), while others are found primarily in continental shelf edge and slope waters (e.g., Risso's dolphin), and still others occupy all three habitats (e.g., common dolphin, spotted dolphins). Information on the western North Atlantic stocks of each species is summarized in Waring *et al.* (2005). Small cetaceans are known to be captured in gillnet and trawl gear (Waring *et al.* 2005).

### **Pinnipeds**

Of the four species of seals expected to occur in the area, harbor seals have the most extensive distribution with sightings occurring as far south as 30° N (Katona *et al.* 1993). Grey seals are the second most common seal species in U.S. EEZ waters, occurring primarily in New England (Katona *et al.* 1993; Waring *et al.* 2005). Pupping colonies for both species are also present in New England, although the majority of pupping occurs in Canada. Harp and hooded seals are less commonly observed in U.S. EEZ waters. Both species form aggregations for pupping and breeding off of eastern Canada in the late winter/early spring, and then travel to more northern latitudes for molting and summer feeding (Waring *et al.* 2005). However, individuals of both species are also known to travel south into U.S. EEZ waters and sightings as well as strandings of each species have been recorded for both New England and Mid-Atlantic waters (Waring *et al.* 2005). All four species of seals are known to be captured in gillnet and/or trawl gear (Waring *et al.* 2005).

#### **4.1.3 Status of bycatch species**

Information about the absolute level of bycatch species in the directed monkfish fishery is not available, according to the EIS for Amendment 2. Nevertheless, Amendment 2 stated that winter skates and dogfish are the predominant species discarded in the NFMA monkfish fisheries, while winter and thorny skates, as well as dogfish are discarded in the SFMA. The status of these three species is summarized below based on the 4<sup>th</sup> Quarterly Update of the 2006 Status of Stocks Report (NOAA/NMFS):

- **Winter skate** – not overfished, overfishing is occurring
- **Thorny skate** – overfished, overfishing is not occurring,
- **Spiny dogfish** – no minimum biomass threshold adopted in the FMP, but based on NMFS' recommended threshold, the stock would be considered not overfished and overfishing is not occurring.

## **4.2 Physical Environment**

The following sections summarize the physical environment of the monkfish fishery. A full description of the physical environment is provided in Section 5.2 of the FSEIS prepared for Amendment 2 to the FMP. The NFMA comprises the Gulf of Maine and most of Georges Bank, while the SFMA extends from the southern edge of Georges Bank through the Mid-Atlantic Bight (see Figure 1). As noted in the following discussion, the NFMA has a diverse physical geography consisting of shoal areas on Georges Bank and numerous rocky banks and basins of the Gulf of Maine, reflecting the influence of glaciation and post-glacial rise of sea level. The SFMA is characterized by the predominantly sandy continental shelf, and 12 deep-water canyons along the edge of the shelf. Figure 9 shows the sediment types in the Northeast, overlaid with the monkfish management areas.

#### **4.2.1 Gulf of Maine**

The Gulf of Maine (GOM) is characterized by a system of deep basins, moraines and rocky protrusions with limited access to the open ocean. The GOM is topographically unlike any other part of the continental border along the U.S. Atlantic coast. The GOM's geologic features, when coupled with the vertical variation in water properties, result in a great diversity of habitat types. It contains twenty-one distinct basins separated by ridges, banks, and swells.

Bedrock is the predominant substrate along the western edge of the GOM north of Cape Cod in a narrow band out to a depth of about 60 m. Rocky areas become less common with increasing depth, but some rock outcrops poke through the mud covering the deeper sea floor. Mud is the second most common substrate on the inner continental shelf. Mud predominates in coastal valleys and basins that often abruptly border rocky substrates. Many of these basins extend without interruption into deeper water. Gravel, often mixed with shell, is common adjacent to bedrock outcrops and in fractures in the rock. Large expanses of gravel are not common, but do occur near reworked glacial moraines and in areas where the seabed has been scoured by bottom currents. Gravel is most abundant at depths of 20 - 40 m, except in eastern Maine where a gravel-covered plain exists to depths of at least 100 m. Bottom currents are stronger in eastern Maine where the mean tidal range exceeds 5 m. Sandy areas are relatively rare along the inner shelf of the western GOM, but are more common south of Casco Bay, especially offshore of sandy beaches.

An intense seasonal cycle of winter cooling and turnover, springtime freshwater runoff, and summer warming influences oceanographic and biologic processes in the GOM. The Gulf has a general counterclockwise non-tidal surface current that flows around its coastal margin that is primarily driven by fresh, cold Scotian Shelf water that enters over the Scotian Shelf and through the Northeast Channel, and freshwater river runoff, which is particularly important in the spring. GOM circulation and water properties can vary significantly from year to year. Notable episodic events include shelf-slope interactions such as the entrainment of shelf water by Gulf Stream rings and strong winds that can create currents as high as 1.1 m/s over Georges Bank. Warm core Gulf Stream rings can also influence upwelling and nutrient exchange on the Scotian shelf, and affect the water masses entering the GOM.

#### **4.2.2 Georges Bank**

Georges Bank is a shallow (3 - 150 m depth), elongate (161 km wide by 322 km long) extension of the continental shelf that is characterized by a steep slope on its northern edge and a broad, flat, gently sloping southern flank. The Great South Channel lies to the west. Bottom topography on eastern Georges Bank is characterized by linear ridges in the western shoal areas; a relatively smooth, gently dipping sea floor on the deeper, easternmost part; a highly energetic peak in the north with sand ridges up to 30 m high and extensive gravel pavement; and steeper and smoother topography incised by submarine canyons on the southeastern margin. The central region of the Bank is shallow, and the bottom is characterized by shoals and troughs, with sand dunes superimposed upon them. The area west of the Great South Channel, known as Nantucket Shoals, is similar in nature to the central region of the Bank. The Great South Channel separates the main part of Georges Bank from Nantucket Shoals. Sediments in this region include gravel

pavement and mounds, some scattered boulders, sand with storm generated ripples, and scattered shell and mussel beds.

Oceanographic frontal systems separate water masses of the GOM and Georges Bank from oceanic waters south of the Bank. These water masses differ in temperature, salinity, nutrient concentration, and planktonic communities, which influence productivity and may influence fish abundance and distribution. Currents on Georges Bank include a weak, persistent clockwise gyre around the Bank, a strong semidiurnal tidal flow predominantly northwest and southeast, and very strong, intermittent storm induced currents, which all can occur simultaneously. Tidal currents over the shallow top of Georges Bank can be very strong, and keep the waters over the Bank well mixed vertically.

### **4.2.3 Mid-Atlantic Bight**

The Mid-Atlantic Bight includes the shelf and slope waters from Georges Bank south to Cape Hatteras, and east to the Gulf Stream. In this region, the shelf slopes gently from shore out to between 100 and 200 km offshore where it transforms to the slope (100 - 200 m water depth) at the shelf break. In both the Mid-Atlantic and on Georges Bank, numerous canyons incise the slope, and some cut up onto the shelf itself. The primary morphological features of the shelf include shelf valleys and channels, shoal massifs, scarps, and sand ridges and swales. The sediment type covering most of the shelf in the Mid-Atlantic Bight is sand, with some relatively small, localized areas of sand-shell and sand-gravel. On the slope, silty sand, silt, and clay predominate.

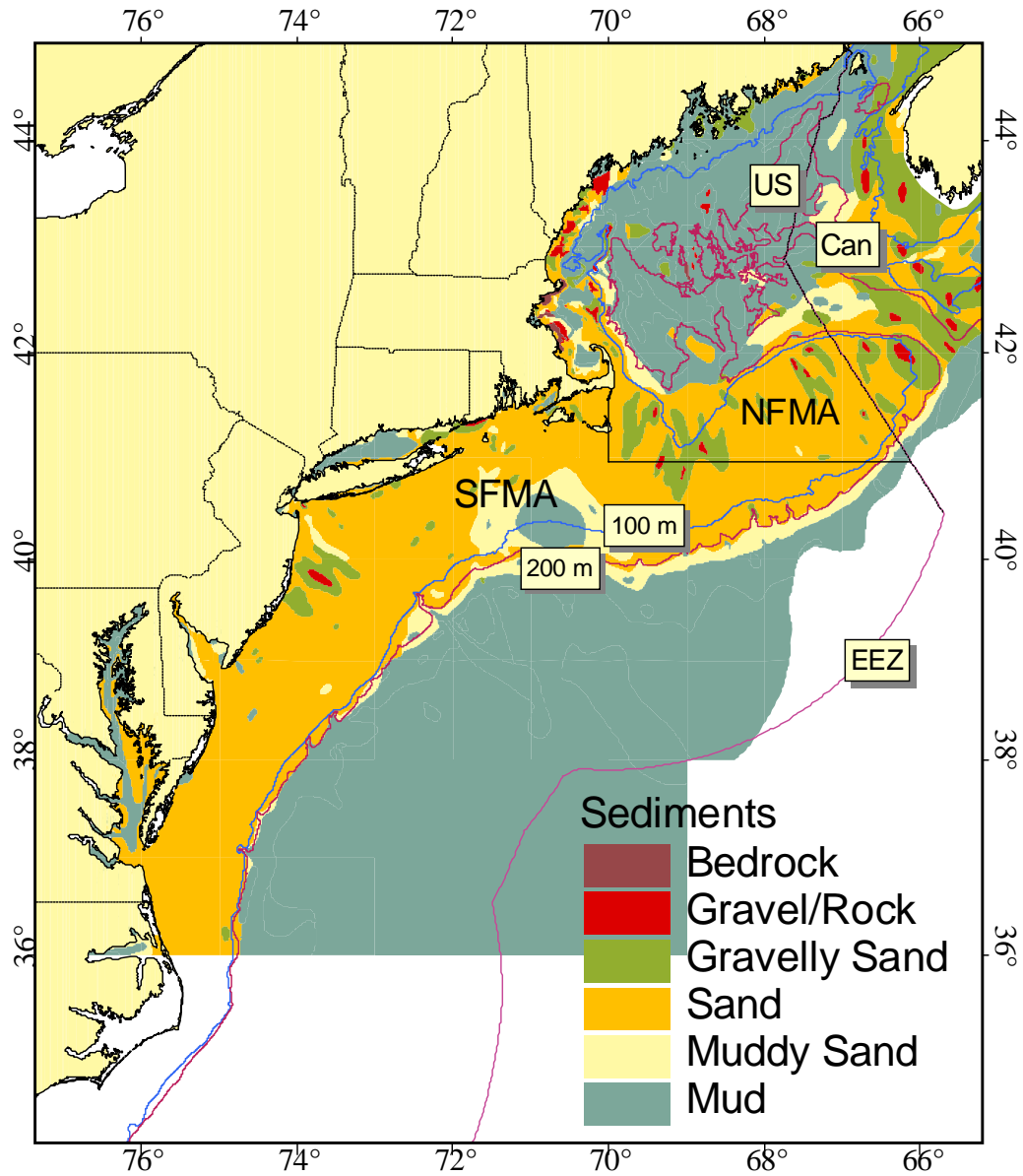
Sediments are uniformly distributed over the shelf in this region. A sheet of sand and gravel varying in thickness from 0 - 10 m covers most of the shelf. The sands are mostly medium to coarse grains, with finer sand in the Hudson Shelf Valley and on the outer shelf. Mud is rare over most of the shelf, but is common in the Hudson Shelf Valley. Occasionally relic estuarine mud deposits are re-exposed in the swales between sand ridges. Fine sediment content increases rapidly at the shelf break, which is sometimes called the "mud line," and sediments are 70 - 100% fines on the slope.

The northern portion of the Mid-Atlantic Bight is sometimes referred to as southern New England. Most of this area was discussed under Georges Bank; however, one other formation of this region deserves note. The mud patch is located just southwest of Nantucket Shoals and southeast of Long Island and Rhode Island. Tidal currents in this area slow significantly, which allows silts and clays to settle out. The mud is mixed with sand, and is occasionally re-suspended by large storms. This habitat is an anomaly of the outer continental shelf.

Shelf and slope waters of the Mid-Atlantic Bight have a slow southwestward flow that is occasionally interrupted by warm core rings or meanders from the Gulf Stream. On average, shelf water moves parallel to bathymetry isobars at speeds of 5 - 10 cm/s at the surface and 2 cm/s or less at the bottom. Storm events can cause much more energetic variations in flow. Tidal currents on the inner shelf have a higher flow rate of 20 cm/s that increases to 100 cm/s near inlets.

Slope water tends to be warmer than shelf water because of its proximity to the Gulf Stream, and tends to be more saline. The abrupt gradient where these two water masses meet is called the shelf-slope front. The position of the front is highly variable, and can be influenced by many physical factors. Vertical structure of temperature and salinity within the front can develop complex patterns because of the interleaving of shelf and slope waters; e.g., cold shelf waters can protrude offshore, or warmer slope water can intrude up onto the shelf.

The seasonal effects of warming and cooling increase in shallower, nearshore waters. Stratification of the water column occurs over the shelf and the top layer of slope water during the spring-summer and is usually established by early June. Fall mixing results in homogenous shelf and upper slope waters by October in most years. A permanent thermocline exists in slope waters from 200 - 600 m deep where temperatures decrease at the rate of about 0.02°C per meter and remain relatively constant except for occasional incursions of Gulf stream eddies or meanders. A warm, mixed layer approximately 40 m thick resides above the permanent thermocline.



**Figure 9 - Overlap of sediment types and fishery management areas in Monkfish FMP (Poppe *et al.* 1989a and b).**

### **4.3 Habitat Requirements and Gear Effects Evaluation**

#### **4.3.1 Monkfish Habitat Requirements and Essential Fish Habitat**

Section 5.1 of the FSEIS to Amendment 2 described benthic habitats that exist within the range of the monkfish fishery biological characteristics of regional systems, and assemblages of fish and benthic organisms. It also included a description of canyon habitats on the edge of the continental shelf. The EFH text descriptions and map designations for the various life stages of monkfish were defined in the Habitat Omnibus Amendment (1998). The following paragraphs and maps, excerpted from the Habitat Omnibus Amendment, describe the environmental needs and natural distribution of Monkfish. For more information on Monkfish EFH refer the Habitat Omnibus Amendment (1998). Note that figures 4.1 and 4.2 (EFH for eggs and larvae) referenced in the following excerpt are not shown, and an additional figure is added, showing combined adult and juvenile monkfish EFH designations. Figure 10 shows the areas designated as EFH for juvenile monkfish (corresponding to Figure 4.3 in the excerpt), Figure 11 shows EFH designated for adult monkfish (Figure 4.4), and Figure 12 shows the combined areas designated as monkfish EFH.

*Essential Fish Habitat Description  
Monkfish (*Lophius americanus*)*

*In its Report to Congress: Status of the Fisheries of the United States (September 1997), NMFS determined monkfish is currently overfished. This determination is based on an assessment of stock size. Essential Fish Habitat for monkfish is described as those areas of the coastal and offshore waters (out to the offshore U.S. boundary of the exclusive economic zone) that are designated on Figures 4.1 - 4.4 and meet the following conditions:*

**Eggs:** *Surface waters of the Gulf of Maine, Georges Bank, southern New England, and the middle Atlantic south to Cape Hatteras, North Carolina as depicted in Figure 4.1. Generally, the following conditions exist where monkfish egg veils are found: sea surface temperatures below 18° C and water depths from 15 - 1000 meters. Monkfish egg veils are most often observed during the months from March to September.*

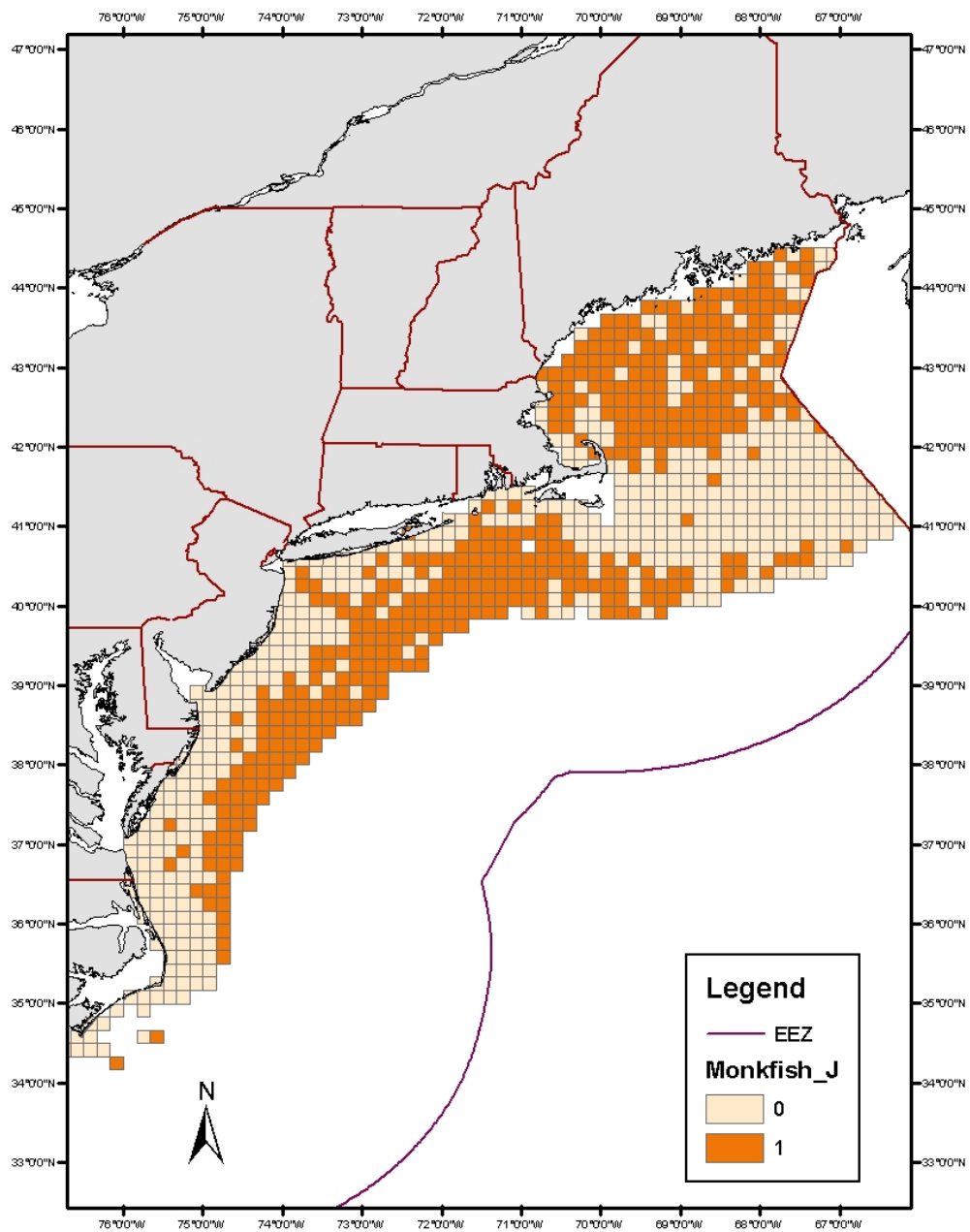
**Larvae:** *Pelagic waters of the Gulf of Maine, Georges Bank, southern New England and the middle Atlantic south to Cape Hatteras, North Carolina as depicted in Figure 4.2. Generally, the following conditions exist where monkfish larvae are found: water temperatures 15° C and water depths from 25 - 1000 meters. Monkfish larvae are most often observed during the months from March to September.*

**Juveniles:** *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, and all areas of the Gulf of Maine as depicted in Figure 4.3. Generally, the following conditions exist where monkfish juveniles are found: water temperatures below 13° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰.*

**Adults:** *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, along the outer perimeter of Georges Bank and all areas of the Gulf of Maine as depicted in Figure 4.4. Generally, the following conditions exist where monkfish adults are found: water temperatures below 15° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰.*

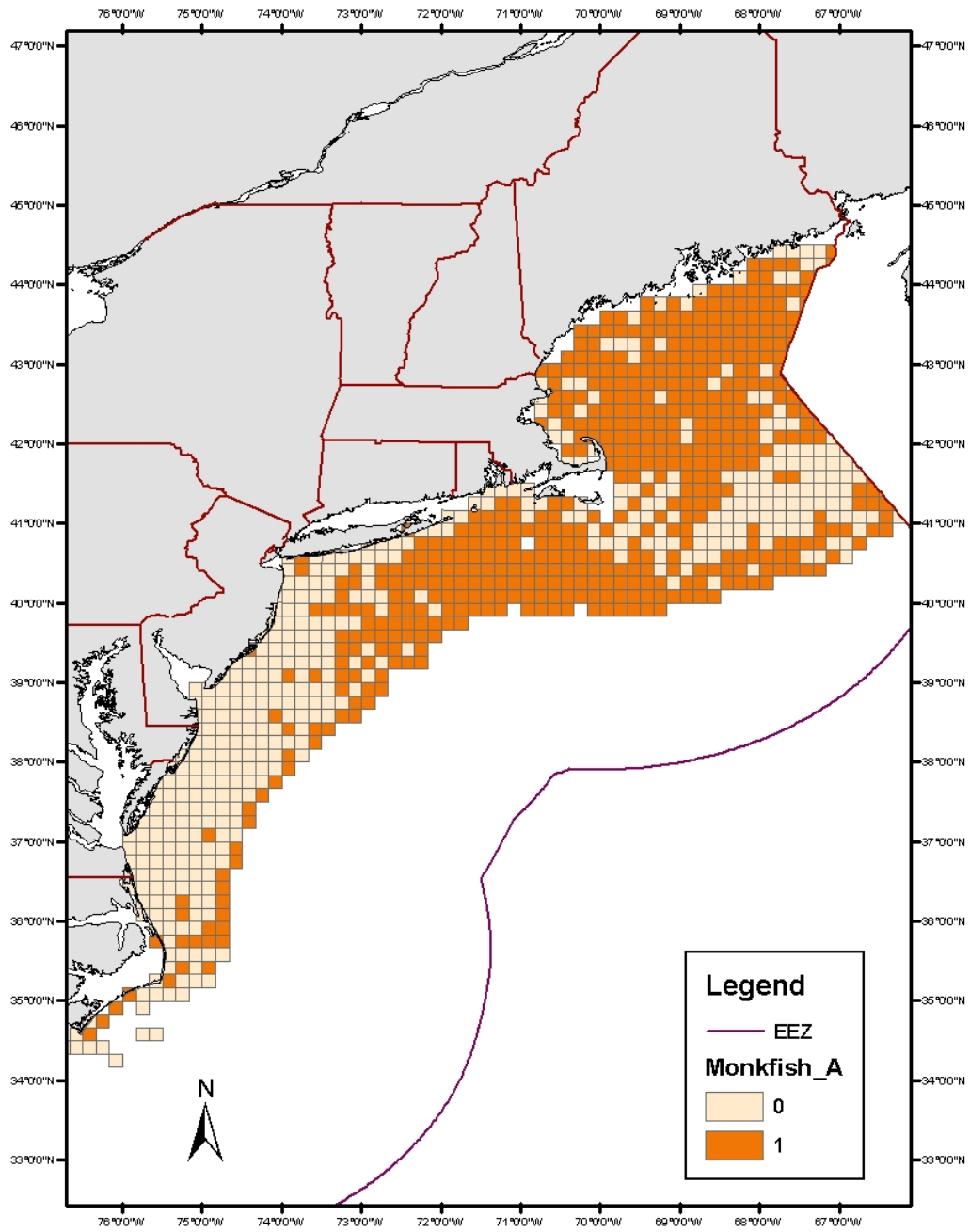
**Spawning Adults:** *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, along the outer perimeter of Georges Bank and all areas of the Gulf of Maine as depicted in Figure 4.4. Generally, the following conditions exist where spawning monkfish adults are found: water temperatures below 13° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰. Monkfish are observed spawning most often during the months from February to August.*

*The Council acknowledges potential seasonal and spatial variability of the conditions generally associated with this species.*

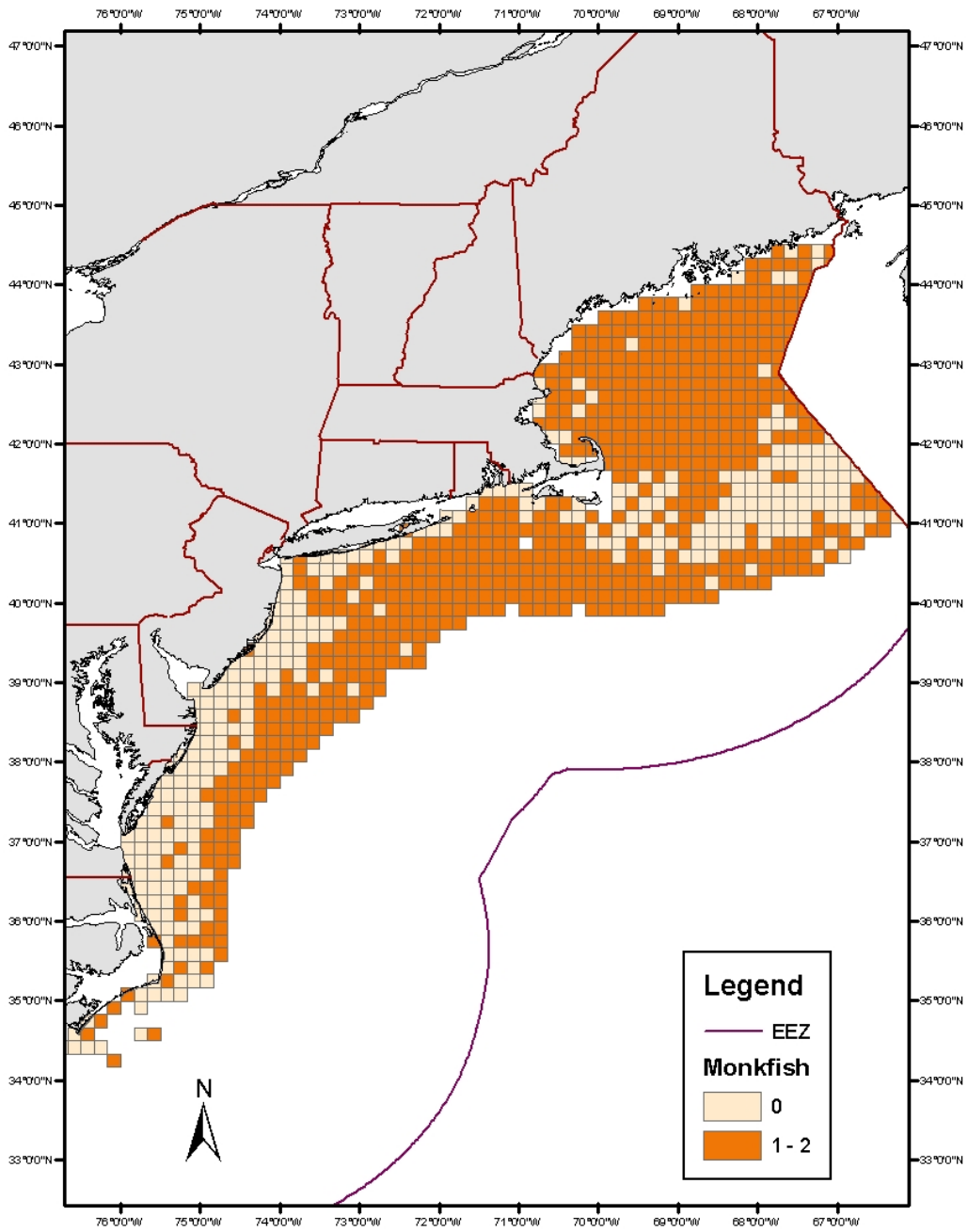


**Figure 10 - EFH Designation for Juvenile Monkfish is highlighted in the shaded ten-minute squares**





**Figure 11 - EFH Designations for Adult Monkfish is highlighted in the shaded ten-minute squares**



**Figure 12 - EFH Designation for both Juvenile and Adult Monkfish combined is highlighted in the shaded ten-minute squares**

#### **4.3.2 Effects of fishing gear on monkfish Essential Fish Habitat**

Section 5.4 of the FSEIS to Amendment 2 evaluated the potential adverse effects of gears used in the directed monkfish fishery on EFH for monkfish and other federally-managed species and the effects of fishing activities regulated under other federal FMPs on monkfish EFH. The evaluation considered the effects of each activity on each type of habitat found within EFH. The two gears used in the directed monkfish fishery are bottom trawls and bottom gill nets which are described in detail in Section 1.2.1 of Appendix 2 to Amendment 2 to the Monkfish FMP.

Generally, otter trawls are towed at speeds of 2-3 knots over the bottom and the trawl doors and footrope contact the benthic environment. Conversely, while sink gill nets are deployed on the ocean bottom, they are stationary or static, anchored at each end and left in place for varying periods of time.

Monkfish EFH has been determined to only be minimally vulnerable to bottom-tending mobile gear (bottom trawls and dredges) and bottom gillnets (see Appendix II of Amendment 2 FSEIS). Therefore, the effects of the monkfish fishery and other fisheries on monkfish EFH do not require any management action. However, the monkfish trawl fishery does have more than a minimal and temporary impact on EFH for a number of other demersal species in the region. Adverse impacts that were more than minimal and less than temporary in nature were identified for the following species and life stages, based on an evaluation of species life history and habitat requirements and the spatial distributions and impacts of bottom otter trawls in the region (Stevenson *et al.*, in press):

*Species and life stages with EFH more than minimally vulnerable to otter trawl gear (42):*  
American plaice (Juvenile (J), Adult (A)), Atlantic cod (J, A), Atlantic halibut (J, A), haddock (J, A), pollock (A), ocean pout (E, J, A), red hake (J, A), redfish (J, A), white hake (J), silver hake (J), winter flounder (A), witch flounder (J, A), yellowtail flounder (J, A), black sea bass (J, A), scup (J), tilefish (J, A), barndoor skate (J, A), clearnose skate (J, A), little skate (J, A), rosette skate (J, A), smooth skate (J, A), thorny skate (J, A), and winter skate (J, A).

There are no species or life stages for which EFH is more than minimally vulnerable to bottom gill nets (Stevenson *et al.*, in press).

In Amendment 13 to the Multispecies FMP and Amendment 10 to the Scallop FMP, the New England Council implemented a range of measures to minimize the impacts of bottom trawling in the Gulf of Maine, George's Bank and Southern New England. In addition to the significant reductions in days-at-sea and some gear modifications, in Amendment 13 the Council closed 2,811 square nautical miles to bottom-tending mobile fishing gear (known as Habitat Closed Areas). Because the monkfish fishery overlaps significantly with the multispecies fishery in the northern fishery management area and the habitat closed areas extend into the southern fishery management area, measures to protect habitat in Amendment 10 and Amendment 13 assist in minimizing the effect of fishing on EFH in the monkfish fishery.

The alternatives implemented in Amendment 2 focus on those areas (offshore/shelf slope/canyons) and gears modifications (trawl mesh) where the monkfish fishery operations do not overlap (spatially or gear use) with the multispecies or scallop fishery. The Councils closed Oceanographer and Lydonia Canyons deeper than 200 meters, a total closure of 116 square nautical miles, to vessels on a monkfish DAS to minimize the impacts of the directed monkfish fishery on deepwater canyon, hard bottom communities. These two canyon areas are outside the range of the multispecies and scallop fisheries, but could be areas in which, or adjacent to where deep-water monkfish fisheries occur.

#### 4.4 Vessels, Ports and Communities

This section provides information on the monkfish fishery from a vessel, port, and community level for FY 2005.

##### 4.4.1 Vessels and Fishery Sectors

The following sections show the distribution of effort and landings by permit category, area and gear type.

###### 4.4.1.1 Permits

In 2005, there were 756 monkfish limited access vessels, of which 346 were Category C permits holding limited access permits in either a Multispecies (61%) or Scallop (47%) fisheries, and 348 were Category D permits, primarily (98%) holding limited access Multispecies permits (Table 6). Overall, 73% of monkfish limited access permit holders also hold multispecies limited access permits. Vessels in all four monkfish permit categories also hold limited access permits in a number of New England and Mid-Atlantic fisheries. In 2005 there were six new Category H limited access permits issued under the provision of Amendment 2 for vessels fishing off the North Carolina/Virginia coast.

MONKFISH PERMIT CATEGORY	NUMBER OF MONKFISH PERMITS	NUMBER OF MONKFISH VESSELS ALSO ISSUED A LIMITED ACCESS PERMIT FOR:									
		BLACK SEA BASS	SUMMER FLOUNDER	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH	TILEFISH
A	14	7	2	7	0	0	0	0	5	1	1
B	42	20	6	19	2	0	0	0	13	0	3
C	346	129	259	285	211	0	0	163	145	111	1
D	348	121	200	315	342	0	0	19	152	104	4
H	6	1	0	0	0	0	0	0	0	0	0
TOTAL	756	278	467	626	555	0	0	182	315	216	9

MONKFISH PERMIT CATEGORY	NUMBER OF MONKFISH PERMITS	PERCENT OF MONKFISH VESSELS ALSO ISSUED A LIMITED ACCESS PERMIT FOR:									
		BLACK SEA BASS	SUMMER FLOUNDER	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH	TILEFISH
A	14	50%	14%	50%	0%	0%	0%	0%	36%	7%	7%
B	42	48%	14%	45%	5%	0%	0%	0%	31%	0%	7%
C	346	37%	75%	82%	61%	0%	0%	47%	42%	32%	0%
D	348	35%	57%	91%	98%	0%	0%	5%	44%	30%	1%
H	6	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	756	37%	62%	83%	73%	0%	0%	24%	42%	29%	1%

**Table 6 - Number and Percent of monkfish limited access vessels also issued a limited access permit in other fisheries in 2005, by permit category**

The FMP also provides an open-access permit (Category E) for vessels that did not qualify for a limited access permit so those vessels can land monkfish caught incidentally in other fisheries.

Table 7 shows that the number of category E permits increased during the first few years of the FMP but has remained relatively steady since 2001, although the number declined about 10% between 2005 and 2006.

Fishing Year	Number of permits
1999	1466
2000	1882
2001	1991
2002	2142
2003	2120
2004	2256
2005	2379
2006	2131
TOTAL	3577

\* The total is the number of unique Category E permits issued since inception of the plan.

**Table 7 - Monkfish open-access (Category E) permits issued each year since implementation of the FMP in 1999.**

#### 4.4.1.2 Landings and Revenues

Table 13.A. - Preliminary Commercial Monkfish Landings by Stock Area

	MAY - 2005	JUN - 2005	JUL - 2005	AUG - 2005	SEP - 2005	OCT - 2005	NOV - 2005	DEC - 2005	JAN - 2006	FEB - 2006	MAR - 2006	APR - 2006	MAY 05 - APR 06	Percent of Area	May05-Apr06 as a % of Target TAC
	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons		
<b>NORTHERN</b>	600	1,134	1,052	962	923	773	760	685	844	694	728	428	9,533	66%	72%
OTTER TRAWL	507	807	530	507	619	539	533	515	807	662	695	382	7,104	37%	54%
GILLNET	92	324	464	442	288	224	219	158	36	32	33	40	2,354	12%	18%
HOOK	0	0	0	0	0	1	1	1	0	0	0	0	3	0%	0%
OTHER GEARS	1	2	8	13	15	10	7	1	0	0	0	5	53	0%	0%
<b>SOUTHERN</b>	1,440	1,307	860	525	420	326	356	728	680	449	580	885	9,856	50%	100%
OTTER TRAWL	133	117	175	310	366	225	422	192	155	150	185	244	2,673	14%	28%
GILLNET	1,214	1,636	578	91	12	62	385	501	495	266	347	546	6,132	32%	63%
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%
OTHER GEARS	94	154	107	124	42	38	49	36	30	33	48	96	850	4%	9%
<b>ALL AREAS</b>	2,040	3,040	1,862	1,487	1,343	1,100	1,616	1,413	1,523	1,143	1,308	1,313	19,189	100%	
OTTER TRAWL	640	925	704	817	985	755	954	707	962	812	880	626	9,777	51%	
GILLNET	1,306	1,960	1,043	533	300	258	605	699	551	298	340	588	8,405	44%	
HOOK	0	0	0	0	0	1	1	1	0	0	0	0	3	0%	
OTHER GEARS	94	154	115	137	57	48	57	37	30	33	48	101	813	5%	
<b>LANDINGS - ALL AREAS</b>															
Fishing Year 2005	2,040	3,040	1,862	1,487	1,343	1,100	1,616	1,413	1,523	1,143	1,308	1,313	19,189		
Fishing Year 2004	1,806	1,979	1,581	1,380	1,304	1,243	1,803	1,681	1,284	1,173	1,235	1,478	17,927		
Fishing Year 2003	2,681	3,199	1,913	1,746	1,420	2,253	2,823	1,907	1,976	2,386	2,172	1,797	26,273		
Fishing Year 2002	1,574	2,093	1,489	1,382	1,524	1,643	1,937	2,203	2,015	1,762	2,631	1,553	21,807		
Fishing Year 2001	2,041	2,456	1,691	1,504	1,495	2,026	2,655	2,984	2,446	1,937	2,022	2,665	25,922		

1. The three digit statistical areas defined below are for statistical and management purposes and may not be consistent with stock area delineation used for biological assessment (see the attached statistical chart).

Monkfish Stock Areas: Northern: 464-005, 467, 511-515, 521-522, 561-562  
Southern: 525-525, 533-534, 537-538, 541-543, 611-609

- 2. Landings in live weight.
- 3. Gear data are based on vessel log reports.
- \* Fishing Year is May 1 through April 30.

Table 8 shows monthly landings for FY 2004 by area and gear, as well as total monthly landings since FY 2000. Monkfish landings increased between FY 2002 and FY 2003, principally due to the increase trip limits in the SFMA but declined in FY2004 as trip limits and DAS allocations were reduced in that area. In FY2005 total landings increased by 1,295 mt, or about 7% due to an increase in SFMA landings as a result increased trip limits and DAS allocations, and in spite of a

decline of 2,379 mt or 20% in NFMA landings from the previous year. For the first time since FY2000, SFMA landings exceeded those in the NFMA. In FY2002 and FY2004, nearly two-thirds of the total landings were from the NFMA, Figure 13, while in FY 2000, 2001 and 2003, the NFMA accounted for 60%, 57% and 54% of the total, respectively. In FY 1999, before the FMP measures took effect, the NFMA accounted for only 40% of the total.

Table 9 shows monthly landings by gear from the dealer reports for FY 2005, both as reported (landed weight) and converted to live weight. The lower landed weights reflect the fact that monkfish are landed as tails only, and as whole fish. The lower ratio of landed weight to live weight for otter trawls (0.38), compared to gillnets (0.80), is the result of a greater proportion of tails being landed by otter trawls, while gillnets land mostly whole fish.

Figure 14 shows the long-term trend in landings (live weight equivalent) and revenues based on a calendar year. For the four-year period prior to 2000, when the FMP took effect and the five-years since the FMP, landings averaged 58.7 and 50.4 million pounds, respectively, while revenues averaged \$37.0 and \$41.5 million. In 2004 and 2005, landings declined but in 2005 revenues actually increased to the fourth highest in the time series (since 1982). Whether the decline in landings is due to effort controls in monkfish and multispecies fisheries or to monkfish abundance, or both, is unknown, and possibly different for each management area. Table 10, which is based on fishing year, not calendar year as Figure 14, shows a similar trend in revenues, but actually shows a slight increase in landed weights in FY2005, reflecting a trend toward landing more whole fish rather than tails.

Figure 15 illustrates the seasonal pattern of monkfish landings in FY 2005, and the distinct difference between NFMA and SFMA fisheries, not only in terms of seasonality, but also in terms of the predominant gear. In the NFMA, trawl gear is the primary gear landing monkfish, and gillnet gear landings are a small proportion during the winter months. In the SFMA, on the other hand, gillnet gear accounts for the majority of monkfish landings, with a peak in the late spring/early summer months, and showing less of a winter effect. Figure 16 shows the annual distribution of landings by gear for each area since FY 1999. While the NFMA pattern is fairly consistent over that period in terms of the proportion landed by gear type, the proportion of landings accounted for by trawl vessels has declined in the SFMA, although it nearly doubled in FY2005 from the previous year.



Table 13.A. - Preliminary Commercial Monkfish Landings by Stock Area

	MAY - 2005	JUN - 2005	JUL - 2005	AUG - 2005	SEP - 2005	OCT - 2005	NOV - 2005	DEC - 2005	JAN - 2006	FEB - 2006	MAR - 2006	APR - 2006	MAY 05 - APR 06		2005*		2004*		Fishing Year* Landings
													Metric Tons	Percent of Area	May/5-Apr/06 as a % of Target TAC	Target TAC	May/4-Apr/04 as a % of Target TAC	Target TAC	
													Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	
<b>NORTHERN</b>	600	1,134	1,052	962	923	773	760	685	844	694	728	428	9,533	50%	72%	13,160	65%	19,988	
OTTER TRAWL	507	807	530	507	619	530	533	515	807	662	695	382	7,104	37%	54%		40%		
GILLNET	92	324	464	442	285	224	219	158	36	32	33	40	2,354	12%	18%		20%		
HOOK	0	0	0	0	0	1	1	1	0	0	0	0	3	0%	0%		0%		
OTHER GEARS	1	2	8	13	15	10	7	1	0	0	0	0	83	0%	0%		0%		
<b>SOUTHERN</b>	1,440	1,907	860	525	420	326	856	728	680	449	580	885	9,856	50%	100%	3,673	92%	6,772	
OTTER TRAWL	133	117	175	310	366	225	422	192	155	150	185	244	2,673	14%	26%		22%		
GILLNET	1,214	1,635	578	91	12	82	385	501	495	296	347	546	6,152	32%	63%		59%		
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%		0%		
OTHER GEARS	94	154	107	124	42	38	49	38	30	33	48	96	850	4%	9%		11%		
<b>ALL AREAS</b>	2,040	3,040	1,862	1,487	1,343	1,100	1,616	1,413	1,523	1,143	1,309	1,313	19,189	100%					
OTTER TRAWL	640	925	704	517	585	755	954	707	662	812	880	626	9,777	51%					
GILLNET	1,396	1,960	1,043	533	300	288	605	699	551	298	380	586	8,406	44%					
HOOK	0	0	0	0	0	1	1	1	0	0	0	0	3	0%					
OTHER GEARS	95	159	115	137	57	48	57	37	30	33	48	101	913	5%					
<b>LANDINGS - ALL AREAS</b>																			
Fishing Year 2005	2,040	3,040	1,862	1,487	1,343	1,100	1,616	1,413	1,523	1,143	1,309	1,313	19,189						19,189
Fishing Year 2004	1,806	1,979	1,581	1,380	1,304	1,243	1,803	1,681	1,284	1,173	1,235	1,478	17,927						17,927
Fishing Year 2003	2,681	3,199	1,913	1,746	1,420	2,253	2,823	1,907	1,976	2,386	2,172	1,797	26,273						26,273
Fishing Year 2002	1,574	2,093	1,489	1,382	1,524	1,643	1,937	2,203	2,015	1,762	2,631	1,553	21,807						21,807
Fishing Year 2001	2,041	2,456	1,691	1,594	1,495	2,026	2,655	2,984	2,446	1,937	2,022	2,665	25,922						25,922

1. The three digit statistical areas defined below are for statistical and management purposes and may not be consistent with stock area delineation used for biological assessment (see the attached statistical chart).

Monkfish Stock Areas: Northern: 464-605, 467, 511-515, 521-522, 561-562  
Southern: 525-526, 533-534, 537-539, 541-543, 611-609

- 2. Landings in live weight.
- 3. Gear data are based on vessel log reports.
- \* Fishing Year is May 1 through April 30.

Table 8 - Monkfish landings by area, gear and month for FY 2005 (converted to live weight).



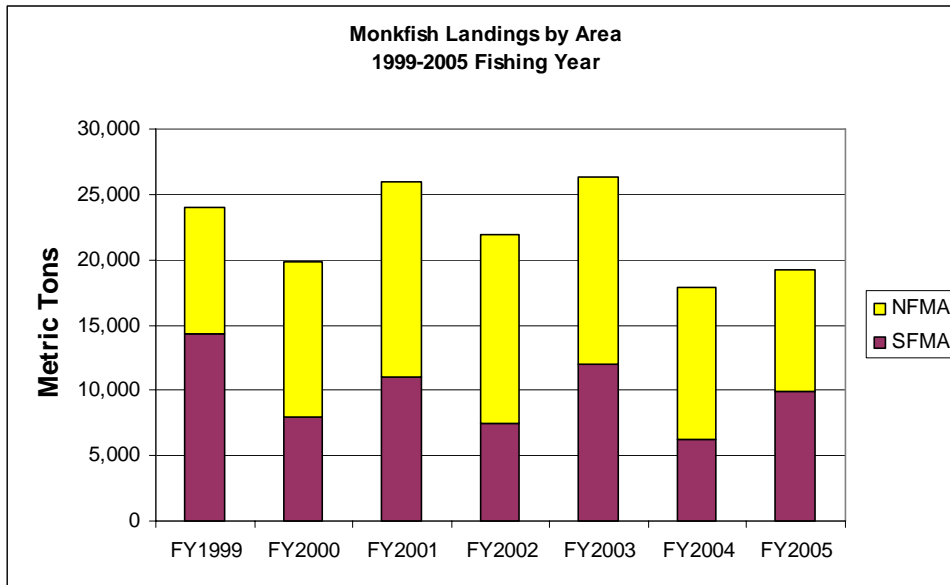


Figure 13 - Monkfish landings by management area, FY 1999 – 2005

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	1,304,815	132,950	2,338,375	106,823	509,950	4,392,913
June	1,786,455	154,876	3,649,132	104,270	661,121	6,355,854
July	1,172,497	133,307	2,017,737	118,067	416,055	3,857,663
August	1,366,520	151,495	1,047,933	137,752	378,749	3,082,449
September	1,890,639	95,962	539,625	96,007	264,662	2,886,895
October	1,520,087	59,225	472,721	16,619	301,522	2,370,174
November	1,833,984	77,539	1,105,883	8,153	438,150	3,463,709
December	1,414,420	32,324	1,217,065	9,577	346,935	3,020,321
January	1,666,149	43,416	1,047,500	8,179	368,567	3,133,811
February	1,499,977	28,815	520,568	8,206	386,908	2,444,474
March	1,728,404	41,481	655,517	3,330	415,957	2,844,689
April	1,088,603	70,316	1,097,546	2,650	503,362	2,762,477
<b>TOTAL</b>	<b>18,272,550</b>	<b>1,021,706</b>	<b>15,709,602</b>	<b>619,633</b>	<b>4,991,938</b>	<b>40,615,429</b>

Source: NMFS Statistics Office, dealer weighout database

\* May include data from CT vessels without a 2005 Monkfish permit

LANDED WEIGHT for FY 2005

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	493,902	42,469	1,958,853	55,329	266,909	2,817,462
June	607,365	48,264	2,876,716	65,188	347,050	3,944,583
July	405,835	41,430	1,394,118	54,643	189,462	2,085,488
August	468,318	46,917	643,829	75,116	130,268	1,364,448
September	673,395	29,438	369,670	52,387	88,572	1,213,462
October	543,881	18,081	370,744	14,413	103,377	1,050,496
November	683,842	24,584	938,286	6,421	169,328	1,822,461
December	558,512	10,370	1,051,185	9,377	159,236	1,788,680
January	756,476	13,776	923,529	7,358	173,135	1,874,274
February	682,069	8,710	472,233	5,225	164,205	1,332,442
March	698,923	12,494	575,327	2,415	161,091	1,450,250
April	426,332	21,282	970,942	1,255	179,611	1,599,422
<b>TOTAL</b>	<b>6,998,850</b>	<b>317,815</b>	<b>12,545,432</b>	<b>349,127</b>	<b>2,132,244</b>	<b>22,343,468</b>

Table 9 - FY2005 monkfish landings from dealer reports, showing live weight and landed weights.

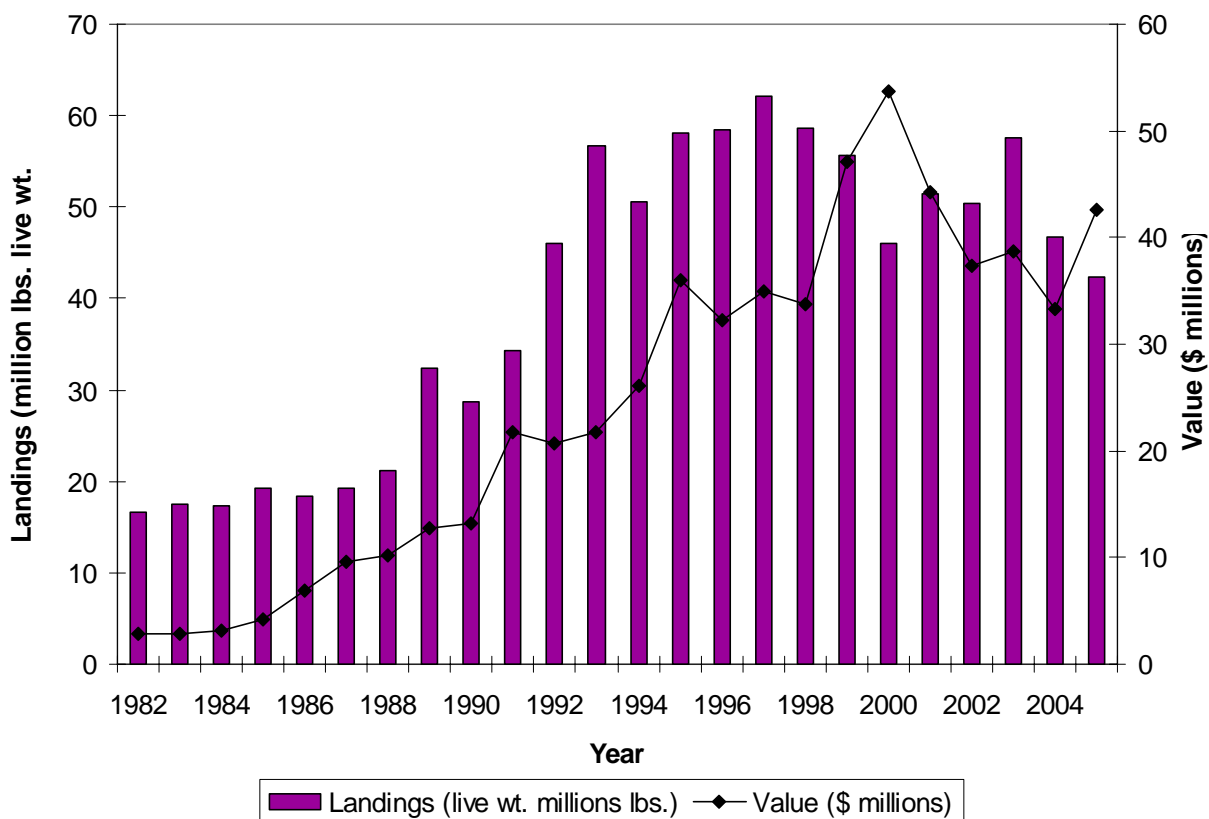


Figure 14 - Calendar year monkfish landings and revenues, 1982-2005.

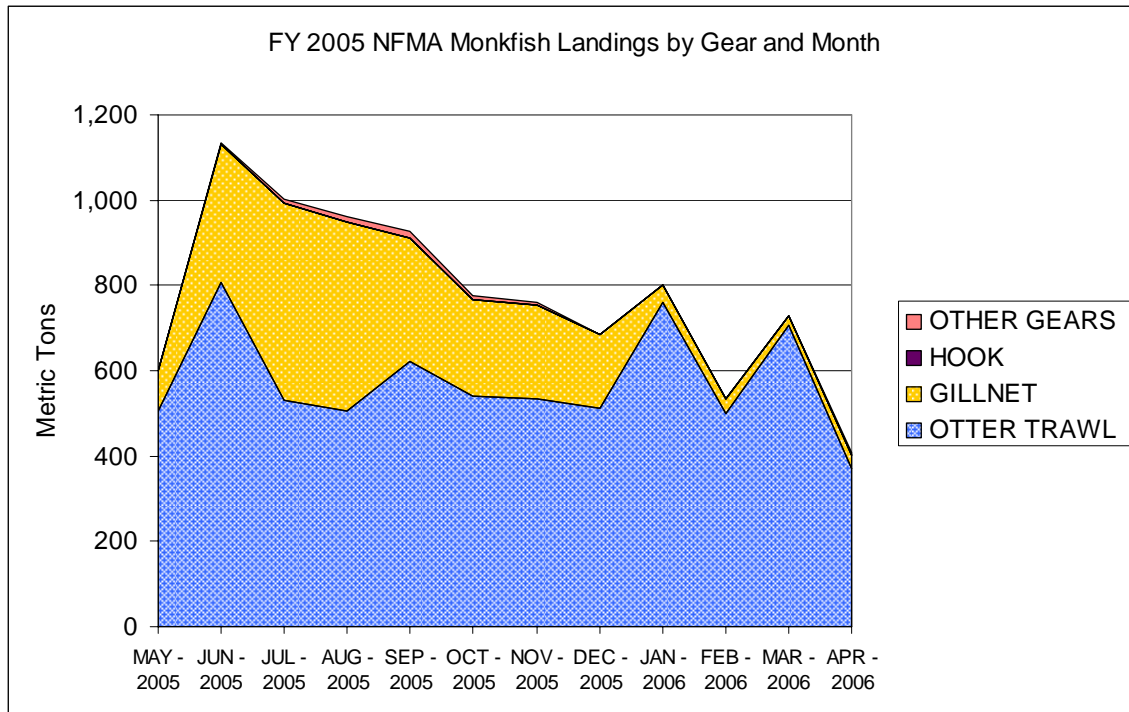
Fishing Year (May 1 - April 30)	Landings* (1,000 lbs. landed wt.)	Revenues* (\$1,000)
1995	18,415.6	\$24,758.8
1996	20,732.6	\$26,188.5
1997	21,774.3	\$30,127.0
1998	24,156.0	\$34,682.0
1999	26,077.2	\$48,713.7
2000	23,422.8	\$46,122.9
2001	30,519.6	\$42,353.5
2002	25,312.0	\$35,256.4
2003	29,344.8	\$37,506.7
2004	18,001.5	\$30,361.3
2005	22,343.5	\$41,143.7

\* May include data from CT vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

Table 10 - Fishing year landings (in landed weights) and revenues, 1995 – 2005

(a)



(b)

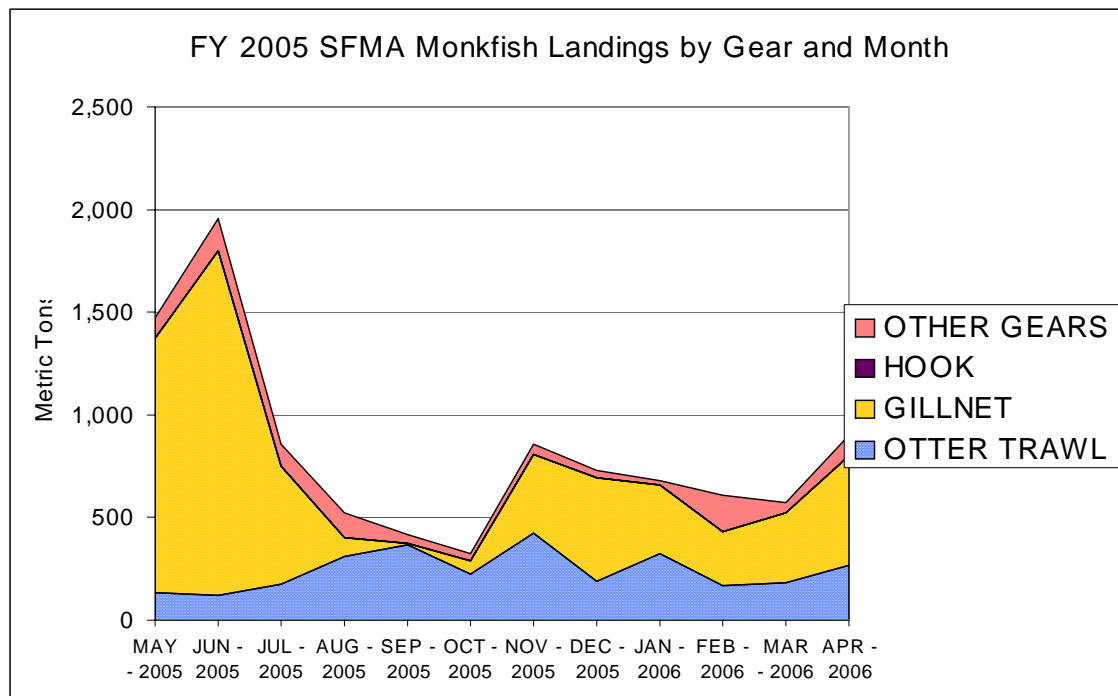
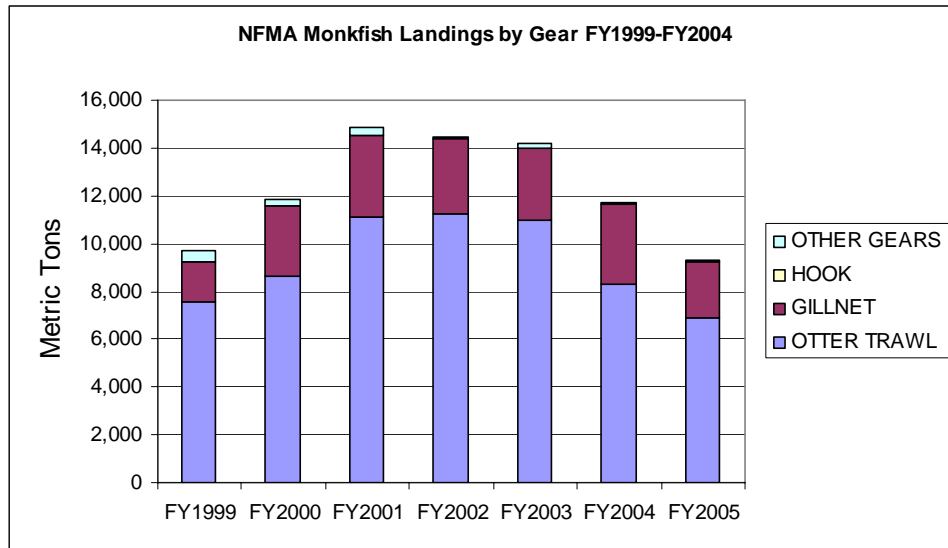
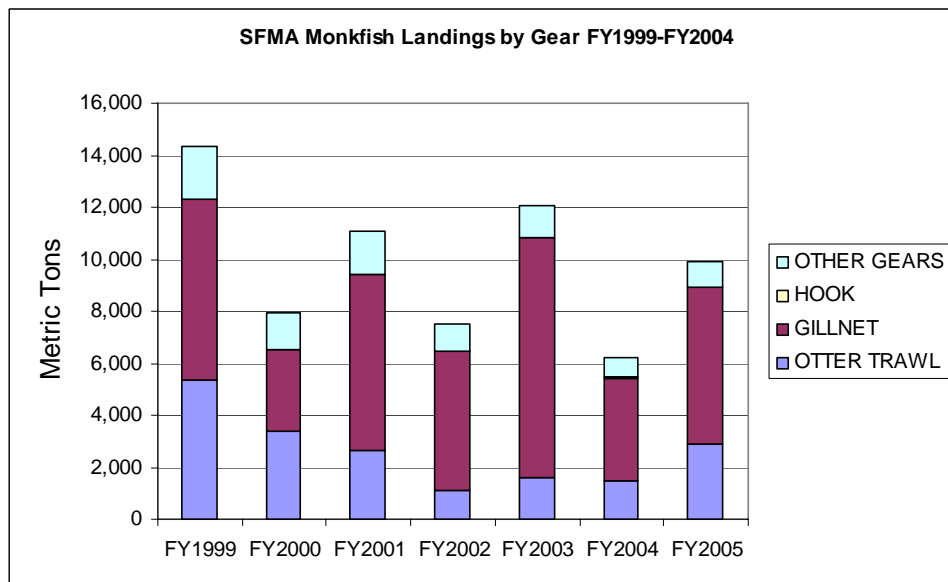


Figure 15 - FY2005 NFMA (a) and SFMA (b) monkfish landings by gear and month

(a)



(b)



**Figure 16 - NFMA (a) and SFMA (b) monkfish landings by gear, FY1999 – 2005**

Massachusetts continues to account for the greatest proportion (nearly half) of all monkfish landings, followed by New Jersey, Rhode Island and Maine ( Table 11).

STATE	Thousands of Pounds of Monkfish										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
CT*	1,029	733	592	574	557	603	787	455	585	373	352
MA	10,023	8,955	9,893	11,353	11,167	10,643	12,298	10,684	12,059	8,333	10,745
MD	178	524	382	322	341	107	158	38	119	55	139
ME	1,815	1,932	2,102	1,986	3,193	3,993	5,012	4,971	3,716	2,900	2,107
NC	0	431	445	395	432	166	167	112	187	47	85
NH	329	401	523	452	801	1,477	1,928	1,233	909	1,087	791
NJ	1,414	2,321	2,680	3,903	4,371	2,825	5,261	3,886	5,349	2,195	3,242
NY	248	513	654	775	573	435	707	694	1,047	541	1,058
RI	2,829	4,080	3,732	3,597	3,969	2,720	3,519	2,808	4,617	2,092	3,039
VA	550	841	773	799	671	455	683	431	758	379	785
<b>TOTAL</b>	<b>18,416</b>	<b>20,733</b>	<b>21,774</b>	<b>24,156</b>	<b>26,077</b>	<b>23,423</b>	<b>30,520</b>	<b>25,312</b>	<b>29,345</b>	<b>18,002</b>	<b>22,343</b>

Source: NMFS Statistics Office, dealer weighout database & permit database

\* May include data from CT vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 11 - Monkfish landings by state (landed weight), FY 1995-2005**

The following tables, Table 12 and Table 13 show monkfish landings and revenues as a percentage of total landings and revenues by permit categories for FY 1995 – 2005. For the years prior to 2001, the data is based on vessels that held a monkfish permit in 2001. For subsequent years, the data is based on vessels that held a permit in those years. Data for Connecticut is shown separately because there may have been landings by vessels that did not have a federal permit in 2001 – 2004 due to the way that state’s landings are reported to NMFS. In the first few years after implementation of the FMP, vessels with Category B and D permits showed an increased reliance on monkfish revenues, although this trend reversed somewhat in FY2004 as a result of lower monkfish landings, it returned to near-peak levels in FY2005. Category A vessels dependence on monkfish revenues peaked in FY1999, and has since returned to pre-FMP levels but also showing an increase in FY2005. Category C vessels, of which 48% also hold scallop limited access permits have seen their dependence on monkfish revenues decline steadily as revenues from scallops have increased in the past five years.

When monkfish landings and revenues are shown by vessel length category (Table 14 and Table 15), a decreased reliance on monkfish is evident for the larger size classes, while an increased reliance is evident for vessels in the 30-49 ft. and 50-69 ft. classes, with the 30-49 ft. vessels being the most reliant on monkfish throughout the period, while vessels in the 50-69 ft. class have relied less on monkfish revenues than in the first few years of the FMP. Overall, the reliance on monkfish revenues, determined as the percent of total revenues was relatively steady between FY2004 and FY2005.

Monkfish Permit Category	1,000 pounds, landed weight										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
<b>A</b>	453	817	563	1,093	1,277	845	1,152	1,072	1,375	727	1,117
<b>% of Total A Landings</b>	49.1%	54.1%	13.4%	10.0%	20.5%	6.5%	6.8%	4.6%	4.9%	14.1%	14.2%
<b>B</b>	322	583	479	992	1,474	1,050	2,084	1,594	1,932	916	1,838
<b>% of Total B Landings</b>	14.0%	18.2%	23.4%	24.1%	36.9%	30.2%	46.4%	40.1%	48.9%	28.7%	43.5%
<b>C</b>	11,504	12,322	12,364	12,144	11,876	10,583	12,708	10,359	11,021	6,832	8,420
<b>% of Total C Landings</b>	10.4%	9.3%	7.5%	8.2%	8.5%	6.9%	6.4%	7.9%	8.5%	5.4%	8.3%
<b>D</b>	4,094	5,020	6,139	7,509	8,982	8,905	11,974	10,388	12,944	8,041	9,239
<b>% of Total D Landings</b>	4.6%	5.3%	5.8%	6.7%	11.1%	9.7%	11.7%	9.9%	12.9%	8.0%	10.9%
<b>H</b>											235
<b>% of Total H Landings</b>											24.9%
<b>E (Open Access)</b>	1,014	1,257	1,637	1,845	1,911	1,459	1,816	1,452	1,489	1,112	1,169
<b>% of Total E Landings</b>	0.5%	0.6%	0.5%	0.6%	0.8%	0.6%	0.7%	0.6%	0.4%	0.3%	0.3%
<b>CT</b>	1,029	733	592	574	557	580	787	448	583	373	325
<b>% of Total CT Landings</b>	5.7%	4.0%	3.3%	3.5%	2.9%	3.3%	4.5%	2.9%	3.8%	2.4%	3.1%
<b>TOTAL MONK LANDED</b>	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,345	18,002	22,343

Source: NMFS Statistics Office, dealer weighout database

\* May include data from CT vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 12 - Monkfish landings as a percent of total landings by permit category, 1995-2005.**

Monkfish Permit Category	\$1,000, nominal (not discounted)										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
<b>A</b>	\$582	\$849	\$663	\$1,262	\$2,011	\$1,428	\$1,615	\$1,439	\$1,432	\$900	\$1,819
<b>% of Total A Revenues</b>	36.9%	41.4%	35.7%	51.2%	63.5%	46.6%	50.6%	42.5%	35.8%	38.1%	49.3%
<b>B</b>	\$391	\$583	\$552	\$1,183	\$2,528	\$1,699	\$2,828	\$2,099	\$1,998	\$1,094	\$2,519
<b>% of Total B Revenues</b>	24.6%	33.5%	38.7%	49.6%	62.2%	48.1%	60.3%	53.3%	54.2%	31.5%	51.5%
<b>C</b>	\$16,014	\$16,423	\$18,091	\$18,501	\$23,250	\$22,380	\$17,503	\$14,713	\$15,582	\$12,925	\$16,622
<b>% of Total C Revenues</b>	13.0%	12.0%	13.3%	14.0%	13.5%	11.5%	9.2%	7.4%	7.1%	5.0%	6.1%
<b>D</b>	\$4,736	\$5,649	\$7,514	\$10,076	\$16,043	\$16,620	\$16,836	\$14,434	\$15,723	\$13,043	\$17,059
<b>% of Total D Revenues</b>	8.2%	9.3%	11.2%	14.9%	20.4%	19.9%	20.2%	17.3%	18.4%	14.5%	17.5%
<b>H</b>											\$283
<b>% of Total H Revenues</b>											36.9%
<b>E (Open Access)</b>	\$1,263	\$1,452	\$2,270	\$2,642	\$3,471	\$2,848	\$2,504	\$1,970	\$2,000	\$1,851	\$2,344
<b>% of Total E Revenues</b>	1.1%	1.2%	1.7%	2.1%	2.4%	1.9%	1.6%	1.2%	1.0%	0.7%	0.8%
<b>CT</b>	\$1,772	\$1,233	\$1,036	\$1,018	\$1,410	\$1,148	\$1,067	\$603	\$772	\$548	\$497
<b>% of Total CT Revenues</b>	4.1%	2.5%	3.1%	3.0%	3.6%	3.8%	3.5%	2.2%	2.5%	1.7%	1.6%
<b>TOTAL MONK REVENUE</b>	\$24,759	\$26,188	\$30,127	\$34,682	\$48,714	\$46,123	\$42,354	\$35,256	\$37,507	\$30,361	\$41,144

Source: NMFS Statistics Office, dealer weighout database

\* May include data from CT vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 13 - Monkfish revenues as a percent of total revenues by permit category, 1995-2005.**

Vessel Length Category	1,000 pounds, landed weight										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
0-29 Feet	70	61	21	20	50	62	73	54	55	42	26
% of Total 0-29 Landings	11.7%	10.5%	3.1%	2.5%	6.9%	7.1%	6.8%	6.5%	8.5%	4.9%	2.0%
30-49 Feet	5,303	6,317	6,415	8,458	10,537	9,291	13,067	11,384	14,785	9,151	11,570
% of Total 30-49 Landings	8.7%	10.3%	10.7%	13.3%	18.5%	17.0%	24.0%	23.7%	28.3%	17.9%	22.9%
50-69 Feet	2,675	3,771	3,398	4,057	4,550	4,983	7,056	5,919	6,364	3,237	4,048
% of Total 50-69 Landings	3.5%	4.7%	3.2%	4.7%	5.5%	5.9%	8.7%	7.6%	8.4%	4.6%	6.6%
70-89 Feet	7,228	8,208	9,629	9,217	8,904	7,469	8,250	6,846	6,754	4,586	5,775
% of Total 70-89 Landings	4.0%	4.4%	3.6%	3.8%	4.0%	3.4%	3.5%	3.1%	2.9%	1.9%	2.9%
90+ Feet	2,109	1,643	1,718	1,830	1,480	1,038	1,285	661	805	613	600
% of Total 90+ Landings	2.1%	1.3%	1.2%	1.1%	1.2%	0.7%	0.6%	0.4%	0.3%	0.3%	0.2%
CT	1,029	733	592	574	557	580	787	448	583	373	325
% of Total CT Landings	5.7%	4.0%	3.3%	3.5%	2.9%	3.3%	4.5%	2.9%	3.8%	2.4%	3.1%
<b>TOTAL MONK LANDED</b>	<b>18,416</b>	<b>20,733</b>	<b>21,774</b>	<b>24,156</b>	<b>26,077</b>	<b>23,423</b>	<b>30,520</b>	<b>25,312</b>	<b>29,345</b>	<b>18,002</b>	<b>22,343</b>

Source: NMFS Statistics Office, dealer weighout database

\* CT data may include landings from vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 14 - Monkfish landings as a percent of total landings by vessel length category, 1995 - 2005**

Vessel Length Category	\$1,000, nominal (not discounted)										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
0-29 Feet	\$72	\$60	\$34	\$25	\$99	\$98	\$98	\$66	\$61	\$57	\$42
% of Total 0-29 Revenues	8.3%	8.3%	3.3%	2.4%	8.9%	9.4%	8.4%	6.3%	6.4%	5.3%	3.7%
30-49 Feet	\$5,657	\$6,474	\$7,049	\$9,933	\$16,887	\$16,199	\$18,410	\$15,353	\$15,824	\$11,972	\$18,441
% of Total 30-49 Revenues	13.1%	15.1%	15.4%	20.2%	29.3%	29.3%	31.0%	27.9%	28.1%	20.0%	21.4%
50-69 Feet	\$3,524	\$4,530	\$4,488	\$5,718	\$8,669	\$9,963	\$9,931	\$8,460	\$8,583	\$6,283	\$8,190
% of Total 50-69 Revenues	7.2%	8.4%	7.7%	10.3%	13.0%	13.6%	13.5%	11.3%	11.0%	7.4%	8.4%
70-89 Feet	\$10,548	\$11,509	\$14,712	\$14,957	\$18,420	\$16,034	\$11,161	\$9,894	\$11,040	\$10,153	\$12,735
% of Total 70-89 Revenues	7.1%	7.2%	8.6%	8.8%	8.7%	6.8%	4.8%	4.0%	3.9%	3.0%	3.3%
90+ Feet	\$3,186	\$2,383	\$2,808	\$3,031	\$3,228	\$2,682	\$1,687	\$880	\$1,227	\$1,349	\$1,239
% of Total 90+ Revenues	5.6%	3.8%	4.7%	5.4%	4.9%	3.8%	2.3%	1.2%	1.4%	1.2%	1.1%
CT	\$1,772	\$1,233	\$1,036	\$1,018	\$1,410	\$1,148	\$1,067	\$603	\$772	\$548	\$497
% of Total CT Revenues	4.1%	2.5%	3.1%	3.0%	3.6%	3.8%	3.5%	2.2%	2.5%	1.7%	1.6%
<b>TOTAL MONK REVENUE</b>	<b>\$24,759</b>	<b>\$26,188</b>	<b>\$30,127</b>	<b>\$34,682</b>	<b>\$48,714</b>	<b>\$46,123</b>	<b>\$42,354</b>	<b>\$35,256</b>	<b>\$37,507</b>	<b>\$30,361</b>	<b>\$41,144</b>

Source: NMFS Statistics Office, dealer weighout database

\* CT data may include landings from vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 15 - Monkfish revenues as a percent of total revenues by vessel length category, 1995 - 2005**

When viewed in aggregate, vessels that hold a monkfish permit are not significantly reliant on monkfish, as monkfish has accounted for less than 10 percent of total landings and revenues during FY 1995-2005,

Table 16 and

Table 17. While prior to FY2004 the proportion of monkfish remained relatively constant (4-5% of landings, 7-11% of revenues), it declined as a result of the reduced monkfish landings and revenues under the management restrictions. The proportion of most other species remained relatively constant, although the proportion of scallop landings and revenues has increased significantly, reflecting improvements in the scallop fishery in recent years, and the proportion of multispecies landings has declined modestly since FY2002.

Species Category	1,000 pounds, landed weight										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Dogfish	33,914	32,392	23,902	34,127	22,942	6,742	4,129	3,632	2,285	1,582	2,190
Dogfish % of Total Landings	7.8%	6.8%	4.0%	5.9%	4.6%	1.3%	0.7%	0.7%	0.4%	0.3%	0.4%
Fluke	7,829	7,941	7,732	9,396	9,478	8,670	11,375	12,092	13,992	16,185	12,422
Fluke % of Total Landings	1.8%	1.7%	1.3%	1.6%	1.9%	1.7%	1.9%	2.3%	2.2%	2.6%	2.1%
Monkfish	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,345	18,002	22,343
Monkfish % of Total Landings	4.2%	4.3%	3.7%	4.2%	5.2%	4.5%	5.0%	4.8%	4.6%	2.9%	3.8%
Multispecies	47,365	53,830	62,951	67,977	68,654	88,095	102,515	83,362	81,269	75,521	63,006
Multispecies % of Total Landings	10.8%	11.3%	10.6%	11.7%	13.6%	16.8%	16.9%	16.0%	12.7%	12.3%	10.7%
Scallops	14,535	15,852	11,834	12,565	23,332	35,380	47,572	50,541	58,583	61,166	52,443
Scallops % of Total Landings	3.3%	3.3%	2.0%	2.2%	4.6%	6.8%	7.9%	9.7%	9.2%	10.0%	8.9%
Skates	9,134	17,503	16,740	18,756	18,061	17,643	17,987	16,849	20,890	15,179	15,401
Skates % of Total Landings	2.1%	3.7%	2.8%	3.2%	3.6%	3.4%	3.0%	3.2%	3.3%	2.5%	2.6%
Other	306,209	329,535	448,958	412,327	334,735	343,322	390,973	330,310	432,833	424,080	423,705
Other % of Total Landings	70.0%	69.0%	75.6%	71.2%	66.5%	65.6%	64.6%	63.3%	67.7%	69.3%	71.6%
<b>TOTAL LBS. LANDED</b>	<b>437,402</b>	<b>477,786</b>	<b>593,890</b>	<b>579,303</b>	<b>503,280</b>	<b>523,275</b>	<b>605,071</b>	<b>522,098</b>	<b>639,197</b>	<b>611,715</b>	<b>591,511</b>

Source: NMFS Statistics Office, dealer weighout database

\* CT data may include landings from vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 16 - FY 1995-2004 Landings of monkfish and other species as a percent of total landings, on vessels with a monkfish permit in 2001 – 2005.**

Species Category	\$1,000, nominal (not discounted)										
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Dogfish	\$6,610	\$6,003	\$3,555	\$5,876	\$4,072	\$1,798	\$1,110	\$870	\$537	\$446	\$572
Dogfish % of Total Revenues	1.9%	1.6%	1.0%	1.6%	0.9%	0.4%	0.2%	0.2%	0.1%	0.1%	0.1%
Fluke	\$13,961	\$13,243	\$14,061	\$14,418	\$16,148	\$13,663	\$14,305	\$16,649	\$20,899	\$23,728	\$20,809
Fluke % of Total Revenues	4.1%	3.6%	3.8%	3.9%	3.7%	2.9%	3.0%	3.5%	3.9%	3.7%	2.9%
Monkfish	\$24,759	\$26,188	\$30,127	\$34,682	\$48,714	\$46,123	\$42,354	\$35,256	\$37,507	\$30,361	\$41,144
Monkfish % of Total Revenues	7.3%	7.1%	8.2%	9.5%	11.0%	9.9%	9.0%	7.3%	7.0%	4.8%	5.8%
Multispecies	\$57,323	\$60,825	\$71,309	\$82,758	\$83,994	\$93,601	\$102,070	\$98,877	\$88,852	\$79,726	\$80,937
Multispecies % of Total Revenues	16.8%	16.5%	19.3%	22.6%	19.0%	20.1%	21.8%	20.5%	16.5%	12.6%	11.4%
Scallops	\$75,624	\$92,763	\$76,005	\$72,999	\$122,812	\$169,409	\$172,621	\$201,193	\$244,876	\$336,776	\$404,111
Scallops % of Total Revenues	22.2%	25.2%	20.6%	19.9%	27.8%	36.3%	36.8%	41.8%	45.5%	53.2%	57.1%
Skates	\$2,708	\$5,440	\$3,071	\$3,471	\$3,234	\$3,598	\$3,105	\$3,489	\$4,517	\$3,245	\$4,317
Skates % of Total Revenues	0.8%	1.5%	0.8%	0.9%	0.7%	0.8%	0.7%	0.7%	0.8%	0.5%	0.6%
Other	\$159,711	\$163,907	\$171,432	\$152,363	\$162,812	\$138,606	\$133,675	\$125,062	\$141,135	\$158,659	\$155,908
Other % of Total Revenues	46.9%	44.5%	46.4%	41.6%	36.9%	29.7%	28.5%	26.0%	26.2%	25.1%	22.0%
<b>TOTAL REVENUE</b>	<b>\$340,696</b>	<b>\$368,369</b>	<b>\$369,559</b>	<b>\$366,568</b>	<b>\$441,785</b>	<b>\$466,797</b>	<b>\$469,240</b>	<b>\$481,396</b>	<b>\$538,324</b>	<b>\$632,943</b>	<b>\$707,798</b>

Source: NMFS Statistics Office, dealer weighout database

\* CT data may include landings from vessels without a 2001, 2002, 2003, 2004, or 2005 Monkfish permit

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 17 - FY 1995-2004 Revenues of monkfish and other species as a percent of total landings, on vessels with a monkfish permit in 2001-2005.**



#### 4.4.1.3 Days-at-sea (DAS)

Starting in Year 2 of the FMP (May, 2000 –April, 2001) limited access monkfish vessels (Categories A, B, C, and D) were allocated 40 monkfish DAS. By definition, Category A and B vessels do not qualify for limited access multispecies or scallop permits, and Category C and D vessels must use either a multispecies or scallop DAS while on a monkfish DAS. Beginning in FY2005 six vessels qualified for a permit Category H fishery under the provisions adopted in Amendment 2, for vessels fishing exclusively in the southernmost area of the fishery.

In the NFMA, there has been no monkfish trip limit when a limited access vessel is on either a combined (monkfish/multispecies or monkfish/scallop) DAS or a multispecies-only DAS, and, consequently, multispecies vessels in Categories C and D and fishing in the NMFA do not call-in monkfish DAS. Therefore, DAS usage, has been well below the total DAS allocated ( Table 18), and primarily reflects monkfish fishing activity in the SFMA. In FY2004 call-in vessels (that is those fishing primarily in the SFMA) used only 35% of their allocated DAS ( Table 19). In FY2005, the number of DAS used increased nearly 28%, from approximately 5,568 in FY2004 to 7,114 in FY2005 (Figure 17), and the percentage of allocated DAS used increased to 54%.

Permit Category	All Vessels		Call-In Vessels	
	DAS Allocated	DAS Used	DAS Allocated	DAS Used
A	694	432	594	432
B	2,069	894	1,549	894
C	17,087	2,509	4,365	2,509
D	17,185	3,174	6,490	3,174
H	240	104	200	104
<b>TOTAL</b>	<b>37,275</b>	<b>7,114</b>	<b>13,198</b>	<b>7,114</b>

Source: NMFS Days-at-Sea (DAS) database via onboard Vessel Monitoring Systems

**Table 18 - Monkfish DAS usage, FY 2005**

Permit Category	DAS Allocated	DAS Used				
		Monkfish	Monkfish/ Multispecies	Monkfish/ Scallop	Total	% Used
A	594	432	0	0	432	73%
B	1,549	894	0	0	894	58%
C	4,365	0	2,509	0	2,509	57%
D	6,490	0	3,174	0	3,174	49%
H	200		104		104	52%
<b>TOTAL</b>	<b>13,198</b>	<b>1,326</b>	<b>5,788</b>	<b>0</b>	<b>7,114</b>	<b>54%</b>

Source: NMFS Days-at-Sea (DAS) database via onboard Vessel Monitoring Systems (VMS)

**Table 19 - Monkfish-only, Monkfish/Multispecies and Monkfish/Scallop DAS Usage by call-in vessels (vessels fishing in the SFMA), FY 2005.**

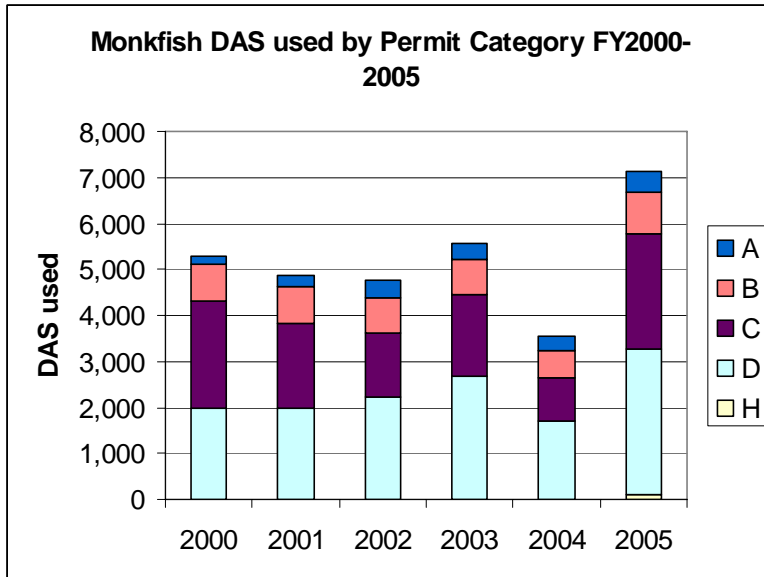


Figure 17 - DAS used by permit category, FY 2001 – 2005.

#### 4.4.2 Ports and communities

The Monkfish FMP references Amendments 5 and 7 to the Northeast Multispecies FMP and Amendment 4 to the Sea Scallop FMP for social and cultural information about monkfish ports, including port profiles. Because of the nature of the monkfish fishery, there is significant overlap between the vessels and communities involved with the monkfish fishery and those involved with the multispecies (groundfish) and scallop fisheries. Many of the same boats that target monkfish or catch them incidentally also target multispecies or scallops. Only about six percent of the limited access monkfish permit holders do not also hold limited access permits in either multispecies or scallops.

For the purposes of this action, “primary monkfish ports” are defined as those averaging more than \$1,000,000 in monkfish revenues from 1994-1997 (based on the dealer weighout data presented in Table 45 of the Monkfish FMP). “Secondary monkfish ports” are defined as those averaging more than \$50,000 in monkfish revenues from 1994-1997 (based on the dealer weighout data presented in the Monkfish FMP).

Primary monkfish ports include:

- Portland, ME
- Boston, MA
- Gloucester, MA
- New Bedford, MA
- Long Beach/Barneget Light, NJ, and
- Point Judith, RI.

Secondary monkfish ports include:

- Rockland, ME
- Port Clyde, ME

- South Bristol, ME
- Ocean City, MD
- Chatham, MA
- Provincetown, MA
- Scituate, MA
- Plymouth, MA
- Westport, MA
- Portsmouth, NH
- Point Pleasant, NJ
- Cape May, NJ
- Greenport, NY
- Montauk, NY
- Hampton Bay, NY
- Newport, RI
- Hampton, VA, and
- Newport News, VA.

Table 20 shows the distribution of monkfish permit holders by homeport and monkfish permit category for the six primary, 18 secondary, and “other” monkfish ports for FY2000 - 2005. Table 21 shows the VTR landings for five of the six major ports (as reported by NMFS in their regular “Northeast Preliminary Fisheries Statistics” Report, not including Long Beach/Barnegat Light, NJ) and states, broken down by management area from which landings were reported, as well as by gear type. Virtually all of the monkfish landed in Portland, Gloucester and Boston come from the NFMA, while about 60% of New Bedford’s landings and only 1 percent of Pt. Judith’s landings come from the NFMA in FY2005. Portland and Boston’s landings are almost totally from otter trawls, while otter trawls make up about 65% of New Bedford landings in FY2005. Gloucester and Pt. Judith landings are evenly split between trawls and gillnets, while New Hampshire, New York and New Jersey landings are predominately (>80%) caught by gillnet gear. This is similar to the distribution by gear for each port in the previous fishing year, except that in FY2003 New Bedford monkfish landings by scallop dredge (included in “other gear” in the table) were 18% of the port’s monkfish landings, while in FY2004 those declined to 12% and in FY2005 to 9%, while the proportion of trawl landings increased.

Port landings and revenue data based on May-April fishing year is presented in Table 22 and Table 23, for primary and secondary ports (as identified in the original FMP), respectively, for FY1995-FY2005. Data is based on the vessel’s homeport and, for FY2005, on the vessel’s principal port of landing as indicated on the permit application. While vessels homeported in New Bedford recorded the highest monkfish landings and revenues from 1995-1999, their share declined in more recent years, while the share of vessels homeported in Boston has increased. Of note is the observation that while Boston ranked the highest in monkfish revenues based on the vessels’ homeport, New Bedford, Portland and Gloucester were the highest based on principal port in FY2005, while Boston and Pt. Judith were the lowest of the six primary ports. Revenues from monkfish increased slightly in all primary ports from FY 2002 to FY 2003, with the exception of Boston where monkfish revenues declined about 11%. In FY2004, however, only New Bedford and Gloucester showed modest revenue increases while Long Beach/Barnegat

Light and Point Judith experienced declines of about 50%, reflecting the lower trip limits and DAS available in the SFMA. In FY2005, all primary ports with the exception of Portland saw increased monkfish revenues; Portland' monkfish revenues declined by 16%, or 392 mt. Monkfish landings and revenues are noticeably smaller for the secondary ports (Table 23), but monkfish revenues make up a greater proportion of total revenues for many of those ports (Table 24).

HOMEPORT		FY 2002 by Category					TOTAL	FY 2003 by Category					TOTAL	FY 2004 by Category					TOTAL	FY 2005 by Category					TOTAL	
		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		A	B	C	D	E		H
<b>PRIMARY PORTS</b>		4	17	194	158	403	776	5	17	203	160	396	781	4	15	206	161	398	784	5	16	202	164	404	X	791
Portland	ME	X	X	10	14	20	45	X	X	12	17	27	57	X	X	15	19	24	58	X	X	12	20	23	X	55
Boston	MA	X	X	43	43	126	215	X	X	39	40	116	198	X	X	39	29	100	169	X	X	36	29	81	X	147
Gloucester	MA	X	X	18	33	138	189	X	X	20	34	129	183	X	X	21	38	133	192	X	X	22	42	128	X	192
New Bedford	MA	X	X	94	35	68	197	X	X	102	33	68	203	X	X	102	44	77	223	X	X	102	43	101	X	248
Barnegate Light	NJ	X	14	11	17	15	59	X	14	10	20	19	65	X	15	11	17	23	68	X	15	12	14	28	X	71
Point Judith	RI	X	X	18	16	36	71	X	X	20	16	37	75	X	X	18	14	41	74	X	X	18	16	43	X	78
<b>SECONDARY PORTS</b>		3	8	59	74	388	532	5	10	61	77	396	549	4	11	64	82	451	612	X	14	66	81	484	X	647
Rockland	ME	X	X	X	X	4	5	X	X	X	X	3	4	X	X	X	X	6	7	X	X	X	X	5	X	6
Port Clyde	ME	X	X	5	3	5	13	X	X	5	4	5	14	X	X	5	5	5	15	X	X	6	4	4	X	14
South Bristol	ME	X	X	X	3	4	9	X	X	X	4	3	9	X	X	X	5	6	13	X	X	X	5	5	X	12
Ocean City	MD	X	X	X	X	14	14	X	X	X	X	16	16	X	X	X	X	18	18	X	X	X	X	19	X	19
Chatham	MA	X	X	X	12	69	81	X	X	X	14	71	85	X	X	X	15	64	79	X	X	X	15	60	X	77
Provincetown	MA	X	X	X	5	13	18	X	X	X	3	14	17	X	X	X	3	20	23	X	X	X	3	16	X	19
Scituate	MA	X	X	X	7	30	38	X	X	X	6	31	38	X	X	X	7	32	39	X	X	X	8	28	X	36
Plymouth	MA	X	X	X	X	18	22	X	X	X	3	17	23	X	X	X	3	24	31	X	X	3	X	21	X	28
Westport	MA	X	X	X	5	18	24	X	X	X	5	19	25	X	X	X	4	19	23	X	X	X	X	18	X	20
Portsmouth	NH	X	X	3	10	23	36	X	X	3	10	19	32	X	X	3	12	32	47	X	X	3	12	31	X	46
Point Pleasant	NJ	X	3	X	5	32	42	X	4	X	4	33	44	X	4	X	4	37	47	X	4	X	5	48	X	58
Cape May	NJ	X	X	18	5	59	84	X	X	20	6	66	94	X	X	23	6	75	106	X	X	26	7	105	X	139
Greenport	NY	X	X	X	X	6	7	X	X	X	X	7	8	X	X	X	X	7	8	X	X	X	X	7	X	8
Montauk	NY	X	X	4	7	65	77	X	X	4	8	65	79	X	3	5	8	74	90	X	4	5	8	73	X	90
Hampton Bay	NY	X	X	X	X	5	8	X	X	X	X	7	9	X	X	X	X	6	7	X	X	X	X	9	X	10
Newport	RI	X	X	5	7	12	25	X	X	7	8	8	24	X	X	7	8	13	29	X	X	7	8	16	X	32
Hampton	VA	X	X	5	X	3	8	X	X	3	X	3	7	X	X	4	X	X	7	X	X	X	X	4	X	6
Newport News	VA	X	X	11	X	8	21	X	X	11	X	9	21	X	X	11	X	11	23	X	X	11	X	15	X	27
<b>OTHER PORTS</b>		8	15	75	103	1,346	1,547	6	13	76	104	1,317	1,516	5	15	73	112	1,392	1,597	7	12	78	103	1,481	6	1,687
<b>TOTAL</b>		15	40	328	335	2,137	2,855	16	40	340	341	2,109	2,846	13	41	343	355	2,241	2,993	14	42	346	348	2,369	6	3,125

Source: NMFS Statistics Office, permit databases

**Table 20 - Monkfish permits by port, FY 2002 – 2005.**

Ports where there are fewer than three permits are marked “x” for confidentiality reasons.

PORT/ STATE	MAY 05 - APR 06	STOCK AREAS				GEAR TYPES							
		NORTHERN		SOUTHERN		OTTER TRAWL		GILLNET		HOOK		OTHER GEARS	
		Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent
Portland, ME	2,304	2,296	100%	7	0%	2,190	95%	113	5%	0	0%	0	0%
Gloucester, MA	2,450	2,270	93%	180	7%	1,256	51%	1,048	43%	0	0%	146	6%
Boston, MA	1,337	1,293	97%	43	3%	1,337	100%	0	0%	0	0%	0	0%
New Bedford, MA	5,100	2,027	40%	3,073	60%	3,338	65%	1,286	25%	0	0%	475	9%
Point Judith, RI	1,261	18	1%	1,243	99%	564	45%	675	54%	0	0%	22	2%
MAINE	2,643	2,630	99%	13	1%	2,459	93%	178	7%	0	0%	6	0%
NEW HAMPSHIRE	532	529	99%	3	1%	60	11%	472	89%	0	0%	0	0%
MASSACHUSETTS	10,126	6,094	60%	4,032	40%	6,120	60%	3,365	33%	3	0%	638	6%
RHODE ISLAND	2,189	62	3%	2,127	97%	681	31%	1,417	65%	0	0%	90	4%
CONNECTICUT	213	2	1%	211	99%	37	17%	152	71%	0	0%	24	11%
NEW YORK	801	2	0%	798	100%	116	14%	682	85%	0	0%	3	0%
NEW JERSEY	2,035	3	0%	2,033	100%	212	10%	1,612	79%	0	0%	211	10%
OTHER NORTHEAST	683	3	0%	680	100%	96	14%	507	74%	0	0%	80	12%
<b>TOTAL</b>	<b>19,222</b>	<b>9,325</b>	<b>49%</b>	<b>9,897</b>	<b>51%</b>	<b>9,783</b>	<b>51%</b>	<b>8,384</b>	<b>44%</b>	<b>3</b>	<b>0%</b>	<b>1,052</b>	<b>5%</b>

1. The three digit statistical areas defined below are for statistical and management purposes and may not be consistent with stock area delineation used for biological assessment (see the attached statistical chart).

Monkfish stock areas: Northern: 464-465, 467, 511-515, 521-522, 561-562  
Southern: 525-526, 533-534, 537-539, 541-543, 611-639

- 2. Landings in live weight.
- 3. Gear data are based on vessel trip reports.

**Table 21 - Preliminary FY2005 monkfish landings by primary port (excluding Long Beach/Barnegat Light, NJ) and State, by gear.**

HOME PORT		MONKFISH LANDINGS AND REVENUES											Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2005
Portland, ME	1,000 Lbs.	1,446.2	1,604.8	1,691.7	1,472.8	2,542.9	2,995.8	1,487.6	1,498.2	1,436.1	990.0	890.5	1,913.6
	\$1,000	\$2,257.6	\$2,393.9	\$2,707.1	\$2,640.2	\$5,472.7	\$6,707.8	\$2,004.9	\$2,289.6	\$2,667.0	\$2,471.3	\$2,079.7	\$4,391.2
Boston, MA	1,000 Lbs.	822.8	674.0	917.6	781.9	1,267.6	960.9	4,964.1	4,777.8	4,291.2	2,829.7	3,363.7	1,654.1
	\$1,000	\$1,082.5	\$936.3	\$1,300.3	\$1,104.1	\$2,240.1	\$2,027.5	\$6,737.6	\$6,629.9	\$5,947.0	\$5,165.8	\$6,121.6	\$2,803.6
Gloucester, MA	1,000 Lbs.	1,675.6	1,154.1	844.3	941.6	1,700.9	2,364.8	2,090.8	2,055.4	1,961.8	1,353.3	1,765.8	2,312.5
	\$1,000	\$1,620.8	\$1,097.7	\$1,037.9	\$1,382.6	\$3,060.7	\$4,441.5	\$3,053.4	\$2,923.5	\$2,604.0	\$2,702.3	\$3,497.3	\$4,387.9
New Bedford, MA	1,000 Lbs.	5,983.8	5,789.6	7,345.5	8,537.1	7,026.5	5,515.4	3,452.8	2,319.5	2,584.6	2,003.9	2,364.8	2,993.1
	\$1,000	\$8,980.7	\$8,260.4	\$11,686.0	\$13,926.2	\$14,442.8	\$11,783.9	\$4,697.9	\$3,278.4	\$3,918.8	\$4,191.9	\$5,554.8	\$6,840.5
Long Beach/Barnegat Light, NJ	1,000 Lbs.	846.4	1,382.2	729.0	1,702.9	2,568.7	1,801.5	3,582.0	2,435.4	3,625.5	1,418.0	2,013.4	1,952.9
	\$1,000	\$1,210.6	\$1,531.5	\$977.7	\$2,099.9	\$4,430.7	\$3,049.4	\$4,807.6	\$3,227.3	\$3,870.5	\$1,797.6	\$2,849.5	\$2,750.4
Point Judith, RI	1,000 Lbs.	1,194.2	2,444.6	2,125.9	1,485.1	1,708.7	1,635.0	643.4	511.9	954.3	422.3	838.6	1,448.1
	\$1,000	\$1,645.1	\$3,366.8	\$3,248.1	\$2,175.5	\$3,275.3	\$3,423.8	\$1,008.6	\$779.4	\$1,381.3	\$672.8	\$1,821.2	\$2,923.0

Source: NMFS Statistics Office, dealer weighout & permits databases

Pounds are in landed weight

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 22 - Monkfish landings and revenues for monkfish primary ports, FY 1995 – 2005, and principal port, FY 2005.**

HOME PORT		MONKFISH LANDINGS AND REVENUES											Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2005
Rockland, ME	1,000 Lbs.	47.7	42.5	37.1	56.3	53.9	74.0	8.3	3.8	3.1	7.3	0.9	34.3
	\$1,000	\$61.2	\$55.3	\$54.3	\$90.0	\$113.2	\$184.5	\$15.5	\$5.5	\$14.3	\$5.4	\$2.4	\$86.9
Port Clyde, ME	1,000 Lbs.	119.2	120.0	183.0	210.4	294.3	325.1	543.5	471.9	386.6	293.8	203.5	225.7
	\$1,000	\$148.5	\$152.7	\$260.9	\$328.4	\$581.8	\$749.5	\$748.4	\$676.8	\$679.8	\$645.7	\$505.2	\$563.6
South Bristol, ME	1,000 Lbs.	126.4	109.5	89.9	93.3	106.6	219.2	278.7	238.3	233.6	235.6	191.5	142.0
	\$1,000	\$162.9	\$145.1	\$131.2	\$146.5	\$217.4	\$494.5	\$410.1	\$342.7	\$431.7	\$539.2	\$470.6	\$353.9
Ocean City, MD	1,000 Lbs.	178.5	520.8	348.5	282.0	314.1	106.7	3.1	2.6	2.4	3.3	3.5	8.3
	\$1,000	\$241.0	\$450.5	\$310.3	\$254.1	\$347.4	\$154.4	\$4.6	\$4.2	\$3.9	\$5.5	\$7.0	\$15.6
Chatham, MA	1,000 Lbs.	126.3	97.5	117.2	231.6	212.7	475.3	613.4	944.1	1,317.9	649.3	1,194.3	1,233.4
	\$1,000	\$110.9	\$936.3	\$126.9	\$237.2	\$327.1	\$771.5	\$829.9	\$1,229.6	\$1,364.5	\$749.6	\$1,904.8	\$1,961.4
Provincetown, MA	1,000 Lbs.	83.3	38.8	24.4	85.6	79.9	35.1	25.9	19.8	38.0	39.2	21.1	22.1
	\$1,000	\$108.0	\$51.8	\$36.7	\$141.5	\$136.4	\$76.8	\$37.7	\$26.4	\$75.2	\$84.0	\$57.2	\$59.9
Scituate, MA	1,000 Lbs.	58.9	45.3	43.2	330.0	331.0	434.4	100.0	206.8	202.9	117.6	173.0	350.3
	\$1,000	\$67.9	\$53.0	\$50.3	\$391.6	\$561.5	\$745.7	\$147.7	\$266.4	\$216.1	\$186.3	\$324.0	\$599.8
Plymouth, MA	1,000 Lbs.	53.5	33.0	27.6	42.3	13.9	276.5	585.5	613.1	717.2	306.1	168.8	169.5
	\$1,000	\$61.6	\$37.6	\$25.5	\$55.8	\$24.3	\$508.0	\$826.2	\$795.9	\$704.8	\$403.5	\$311.4	\$313.3
Westport, MA	1,000 Lbs.	809.6	856.9	461.4	539.0	451.9	307.4	685.7	549.5	830.6	246.4	164.7	244.6
	\$1,000	\$764.5	\$768.5	\$387.6	\$543.3	\$691.2	\$568.3	\$1,022.6	\$739.3	\$799.1	\$248.5	\$273.2	\$386.9
Portsmouth, NH	1,000 Lbs.	370.7	387.9	519.9	474.7	845.3	1,253.7	1,098.7	671.8	562.9	439.4	434.0	749.1
	\$1,000	\$447.5	\$443.0	\$636.9	\$532.5	\$1,319.5	\$2,122.7	\$1,578.8	\$967.0	\$641.6	\$612.1	\$750.2	\$1,245.0
Point Pleasant, NJ	1,000 Lbs.	84.3	517.7	1,091.5	1,578.5	1,286.0	772.5	337.9	128.3	401.2	312.1	191.7	259.9
	\$1,000	\$111.4	\$565.8	\$1,096.5	\$1,884.9	\$2,320.0	\$1,208.2	\$441.5	\$164.4	\$395.6	\$401.9	\$286.0	\$392.3
Cape May, NJ	1,000 Lbs.	273.0	312.6	465.0	316.3	124.3	117.5	187.5	117.9	162.1	87.6	118.0	127.0
	\$1,000	\$370.1	\$389.2	\$571.7	\$398.2	\$255.7	\$266.2	\$248.2	\$134.7	\$206.3	\$131.6	\$213.3	\$224.6
Greenport, NY	1,000 Lbs.	26.1	48.9	62.9	41.9	12.1	3.6	6.9	19.8	7.8	13.6	22.1	22.2
	\$1,000	\$35.1	\$72.0	\$86.2	\$62.2	\$20.0	\$8.7	\$10.7	\$32.6	\$14.5	\$36.6	\$61.8	\$61.9
Montauk, NY	1,000 Lbs.	46.9	53.0	92.2	157.4	79.7	47.2	146.7	238.4	572.5	239.2	381.2	374.9
	\$1,000	\$62.3	\$74.2	\$135.9	\$246.9	\$170.1	\$122.2	\$237.5	\$358.4	\$694.4	\$370.4	\$626.2	\$610.7
Hampton Bays, NY	1,000 Lbs.	87.0	318.9	309.5	454.3	415.7	316.6	93.2	138.8	128.9	8.2	47.0	48.7
	\$1,000	\$120.5	\$516.1	\$589.6	\$733.0	\$661.6	\$562.6	\$134.4	\$191.2	\$134.8	\$11.8	\$72.1	\$76.1
Newport, RI	1,000 Lbs.	312.0	406.9	436.3	406.8	581.5	360.9	614.2	671.1	1,234.6	738.2	864.9	854.0
	\$1,000	\$388.0	\$505.4	\$558.1	\$584.3	\$1,229.4	\$808.1	\$848.2	\$917.9	\$1,507.4	\$1,018.9	\$1,559.5	\$1,540.3
Hampton, VA	1,000 Lbs.	256.2	336.0	113.4	134.9	42.2	35.8	20.7	3.6	4.7	7.4	11.0	29.4
	\$1,000	\$326.5	\$350.5	\$129.3	\$178.5	\$79.1	\$76.1	\$23.8	\$3.6	\$6.3	\$11.6	\$18.1	\$52.2
Newport News, VA	1,000 Lbs.	184.3	253.9	373.0	275.2	95.9	90.0	39.6	43.8	37.3	30.4	31.5	38.0
	\$1,000	\$221.1	\$285.0	\$454.0	\$333.1	\$140.4	\$106.5	\$42.9	\$50.9	\$43.3	\$41.4	\$49.0	\$58.8

Source: NMFS Statistics Office, dealer weighout database & permit database

Pounds are in landed weight

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

HOME PORT		MONKFISH LANDINGS AND REVENUES											Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2005
All Other Ports	1,000 Lbs.							8699.4	6182.4	7063.9	4836.3	6558.7	4810.9
	\$1,000							\$12,153	\$8,618	\$8,421	\$7,299	\$11,231	\$7,947
Summary of "Primary", "Secondary" and "Other" Ports							30,310	24,864	28,762	17,628	22,018	22,018	
							\$42,072	\$34,654	\$36,735	\$29,813	\$40,646	\$40,646	

Table 23 - Monkfish landings and revenues for monkfish secondary and other ports, FY 1995 – 2005, and principal port, FY 2005.



	HOME PORT	Number of Vessels	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005
1	Westport, MA	27	56.9%	69.0%	42.5%	40.8%	49.6%	51.2%	62.9%	37.4%	47.3%	28.9%	30.7%
2	Port Clyde, ME	21	10.6%	7.7%	13.7%	19.2%	37.6%	44.6%	36.5%	32.7%	36.1%	35.4%	13.6%
3	Plymouth, MA	24	6.0%	4.2%	6.3%	7.9%	7.5%	38.5%	29.8%	28.6%	4.6%	23.0%	9.2%
4	South Bristol, ME	3	7.1%	7.6%	7.5%	13.5%	22.6%	42.5%	32.4%	27.7%	35.6%	34.1%	35.9%
5	Portsmouth, NH	38	11.8%	12.5%	19.8%	19.4%	38.4%	39.9%	49.8%	37.8%	31.3%	28.4%	30.7%
6	Scituate, MA	35	5.9%	3.5%	3.2%	20.2%	30.5%	40.5%	34.5%	17.5%	30.7%	13.9%	10.5%
7	Boston, MA	32	13.1%	10.8%	14.0%	13.5%	27.4%	30.8%	20.6%	23.6%	23.3%	27.8%	30.2%
8	Portland, ME	120	12.5%	13.0%	13.9%	14.4%	23.5%	26.2%	22.2%	27.6%	26.3%	27.4%	23.1%
9	Rockland, ME	3	17.6%	22.4%	4.1%	9.0%	12.3%	14.3%	9.5%	2.8%	4.2%	0.3%	
10	Long Beach/Barnegat Light, NJ	4	17.7%	21.6%	14.8%	28.6%	39.1%	22.3%	34.2%	24.0%	25.1%	74.1%	88.0%
11	Gloucester, MA	271	10.2%	6.9%	5.2%	5.8%	13.2%	18.0%	15.8%	15.1%	12.9%	14.2%	13.2%
12	Point Judith, RI	155	6.6%	12.7%	9.1%	8.5%	10.6%	13.3%	11.2%	8.0%	8.5%	4.3%	8.7%
13	Newport, RI	75	6.2%	9.5%	10.1%	10.7%	23.6%	11.4%	13.3%	12.1%	18.0%	10.9%	6.4%
14	Chatham, MA	129	2.8%	22.4%	2.6%	4.9%	5.7%	11.2%	9.3%	19.9%	18.1%	10.8%	21.1%
15	Point Pleasant, NJ	120	2.0%	7.1%	10.6%	19.0%	19.1%	9.0%	13.8%	8.0%	7.1%	3.7%	4.7%
16	New Bedford, MA	513	13.4%	9.4%	14.0%	15.8%	11.5%	8.1%	5.9%	4.1%	4.5%	3.5%	3.9%
17	Hampton Bays, NY	53	2.5%	9.5%	8.1%	10.0%	10.1%	7.9%	9.7%	7.0%	6.4%	3.4%	11.8%
18	Ocean City, MD	59	7.3%	15.0%	12.3%	11.7%	15.3%	4.3%	4.8%	0.8%	2.2%	1.2%	2.7%
19	Provincetown, MA	45	9.0%	4.9%	2.5%	8.1%	6.7%	4.3%	0.9%	2.2%	4.3%	5.0%	2.5%
20	Montauk, NY	100	0.9%	1.4%	1.8%	3.3%	2.1%	1.6%	2.3%	3.4%	6.2%	3.4%	4.8%
21	Cape May, NJ	220	1.5%	1.8%	2.4%	1.9%	1.4%	1.2%	0.7%	0.5%	0.6%	0.3%	0.9%
22	Greenport, NY	5	1.7%	2.6%	2.9%	2.0%	1.3%	1.0%	1.1%	0.6%	0.2%	0.1%	0.5%
23	Hampton, VA	63	4.0%	5.1%	2.7%	2.9%	1.2%	0.8%	0.6%	0.2%	0.2%	0.3%	0.5%
24	Newport News, VA	74	1.8%	2.2%	3.9%	2.8%	0.9%	0.5%	0.2%	0.2%	0.2%	0.1%	0.1%

Source: NMFS Statistics Office, dealer weighout database & permit database

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2005 fishing years, respectively.

**Table 24 - Monkfish Revenues, FY 1995-2005, as a Percentage of Total Revenues by Port**

## **5.0 Environmental Consequences of Proposed Action**

### **5.1 Biological Impacts**

#### **5.1.1 Impact on monkfish and non-target species**

The scientific basis of monkfish management in the region is fraught with technical difficulties such as a lack of an analytical assessment, inability to determine current fishing mortality rates and conduct projections for evaluating rebuilding strategies, reliance on a trawl survey index as the primary indicator of stock status, and uncertainty in the magnitude of historical catches. A shortage of knowledge of basic monkfish biology (growth rates, reproduction, stock definition and inter-relationships, full species range, and life history) also contributes to the difficulty in formulating management measures designed to achieve a specific biological objective, such as a biomass target, or to evaluate measures for their efficacy in achieving specific objectives. Therefore, the following analysis of biological impacts of management alternatives must be qualitative and relative to other alternatives under consideration, rather than quantitative and absolute.

##### **5.1.1.1 Biological impact of TAC alternatives**

There are two target TAC alternatives under consideration for each management area, including the no action alternative.

TAC Alternative 1 (the proposed action) for the NFMA was developed by the Monkfish PDT and incorporates a range of nine different methods that could be used to calculate appropriate target catch levels (see APPENDIX I of Framework 4), which were subsequently synthesized to a single value. Although the recommended target TAC cannot be analyzed to determine whether it will result in the needed rebuilding, it represents the PDT's best estimate of a target catch that could facilitate stock rebuilding and maintain a limited directed fishery. TAC Alternative 1 for the SFMA is based upon the target TAC in place for FY 2006. This target TAC is considered to be more biologically conservative than the target TAC proposed for the SFMA in Framework 4 since it is 1,433 mt lower. The target TAC proposed in Framework 4 was developed by the PDT using the same methodology as that used for developing the target TAC for the NFMA. However, due to the fact that the monkfish fishery is in the 7<sup>th</sup> year of a 10-year rebuilding plan, but the 3-year average biomass indices for both management areas are at less than 50 percent of their respective biomass targets, NMFS believes that any increase in the target TAC for either management above the status quo cannot be justified given the information currently available. TAC Alternative 2, the no action alternative, would result in target TACs that are 12-percent less than the proposed target TAC for the NFMA, and 42-percent greater than the target TAC proposed for the NFMA, and are based on the application of the Framework 2 control rule for FY 2007, which NMFS feels is flawed for the reasons outlined in Section 1.2.3

In general, a higher TAC would allow for removal of more monkfish from the population and would, therefore, be less conservative than a lower TAC, and reduce the likelihood that the rebuilding objectives will be met. Since the TACs are simply the basis for developing effort controls (principally, DAS and trip limits), the effect of each alternative depends on the relative magnitude of the TAC. Conversely, a lower TAC, and corresponding management measures,

would have a more positive impact on monkfish by allowing more animals to survive, contributing to stock biomass growth and reproductive capability. Therefore, Alternative 1 may have a greater biological impact on the monkfish resource in the NFMA when compared to the no action alternative due to the higher target TAC (580 mt greater). Conversely, Alternative 1 would likely have less of a biological impact on the monkfish resource in the SFMA when compared to the no action alternative due to the lower target TAC (1,541). When examining the change in monkfish effort based on the proposed target TACs for each management area, Alternative 1 would result in less of an overall target TAC (8,667 mt) than the no action alternative (9,628). In addition, the preferred target TAC alternative would result in an effort reduction when compared to the target TACs in place for FY 2006 of 35 percent for the NFMA, but maintain status quo effort levels for the SFMA.

In terms of the impact of the two TAC alternatives on non-target species, however, the converse may be true. If a lower TAC results in fewer DAS being used to target monkfish, then vessels will have more time available to target other species, and an economic incentive to do so. This would be the case with target TAC Alternative 2 for the NFMA, and target TAC Alternative 1 for the SFMA. The level of such a redirection of fishing effort, and commensurate impacts on non-target species, cannot be reliably calculated since it is difficult to predict changes to fishing behavior in response to changes in regulations. However, the impact to non-target species resulting from such redirection of effort is probably greater than the impact of incidental catch of non-target species resulting from vessels fishing under a monkfish DAS. This is because directed monkfish gillnet trips are taken with large-mesh gear (i.e., 10- or 12-inch mesh), particularly in the SFMA, where the incidental catch of other species is minimal, with the exception in some cases of skates and dogfish. Directed monkfish trawl trips are generally taken in conjunction with a multispecies DAS, whereby vessels are authorized to use the minimum regulated mesh size allowed under the multispecies FMP. Since vessels possessing both limited access monkfish and limited access multispecies DAS permits must use multispecies DAS in conjunction with their monkfish DAS, the impact of directed monkfish fishing effort using trawl gear is not necessarily directly related to availability of monkfish DAS as it is to the availability of multispecies DAS.

#### **5.1.1.2 Biological impact of NFMA DAS Alternatives**

NMFS is considering two alternatives for monkfish DAS requirements in the NFMA, either to require vessels to use monkfish DAS when exceeding the monkfish incidental limit (NFMA DAS Alternative 1, the proposed action), or to continue the current program that does not require monkfish limited access vessels exceeding the incidental limit to call in a monkfish DAS (NFMA DAS Alternative 2, no action). Under Alternative 1, vessels would be required to call in a monkfish DAS (either monkfish-only DAS if fishing with large-mesh gillnets in the Gulf of Maine Monkfish Exempted Fishery, or monkfish/multispecies DAS) if they exceed the incidental catch limit. Under Alternative 2, a vessel is not required to call in a monkfish DAS when fishing in the NFMA. Currently, monkfish limited access vessels fishing in the NFMA on a multispecies DAS have no monkfish trip limit, and, therefore, do not call-in monkfish DAS.

If vessels are not required to use a monkfish DAS (Alternative 2, no action) when fishing in the NFMA, the trip limit analysis conducted by the PDT in Framework 4 indicates that the trip limits necessary to keep catches below the target TAC are well below the levels under the proposed

incidental catch alternatives, effectively eliminating the directed fishery. Therefore, taking no action on this DAS alternative would reduce the trip limit to an unreasonably low level if trip limits were implemented in the NFMA under this action. However, the combination of taking no action on DAS and trip limits would provide NMFS with no means by which to ensure that either of the proposed target TACs are not exceeded, making this combination of alternatives inconsistent with the objectives of the FMP

The PDT analysis contained in Framework 4 notes that even with no directed fishery (all vessels fish under the incidental catch limit), there is still a high risk of exceeding the target TAC under either incidental catch alternative under NFMA DAS Alternative 2 (no action) given the inter-relationship between the multispecies fishery and the monkfish fishery in the NFMA. Under Alternative 2, if the average catch equals the incidental limit (either the 300 lbs. or 400 lbs./DAS maximum), then the projected catch would exceed the target TAC, and be nearly double the TAC under the higher incidental limit. If the average catch under the incidental limits remains at the level observed in 2005 for vessels catching less than the incidental limit, which is unlikely, then the projected catch would be about one-half the target TAC. Information on observed multispecies trips since May 2004 in the NFMA landing monkfish (Table 25) shows that approximately 29 percent of these trips harvested more than the incidental catch limit, and approximately 27 percent of these trips listed monkfish as a targeted species. Many industry members, particularly trawl vessel owners, that fish in the NFMA have stated that monkfish is a component of their multispecies catch, and is difficult to avoid. However, in recent years, more industry members have noted that they are able to conduct some directed trawl tows on monkfish during the course of their multispecies trips. This is evidenced by the information contained in Table 26, which shows that approximately 27 percent of the observed trips had at least one haul where monkfish was listed as the target species, and that approximately 43 percent of these observed trips had at least one haul that caught more monkfish than multispecies. Therefore, the biological impact of requiring vessels to call in a monkfish DAS in the NFMA (Alternative 1, proposed action), compared to the no action alternative, is more conservative biologically since it would allow for the calculation of DAS and trip limit combinations that are expected to keep monkfish catches below the target TAC.

<b>DAS Trip Type</b>	<b>Gear Category</b>	<b>Over Monkfish Incidental Limit</b>	<b>More Monkfish than Multispecies</b>	<b>Monkfish Listed as Target Species</b>	<b>Total Trips</b>
NMS-DAY	GG	149	291	388	1172
NMS-TRP	GG	10	9	15	48
NMS-HGH	LL	0	0	0	21
NMS-MUL	GG	6	2	4	21
NMS-MUL	LL	0	0	0	10
NMS-MUL	OT	117	85	89	748
NMS-USC	GG	0	0	0	1
NMS-USC	LL	0	0	0	19
NMS-USC	OT	493	108	217	623
<b>Total</b>		775	495	713	2663
<b>Percent of Total</b>		29.1%	18.6%	26.8%	

**Table 25 - Observed NFMA Multispecies Trips since May 2004 Landing Monkfish**

DAS Trip Type	Gear Category	At Least 1 Haul Over Monkfish Incidental Limit	At Least 1 Haul With More Monkfish than Multispecies	At Least 1 Haul With Monkfish Listed as Target Species	Total Trips
NMS-DAY	GG	36	511	388	1172
NMS-HGH	LL	0	0	0	21
NMS-MUL	GG	5	5	4	21
NMS-MUL	LL	0	0	0	10
NMS-MUL	OT	38	191	89	748
NMS-TRP	GG	3	17	15	48
NMS-USC	GG	0	0	0	1
NMS-USC	LL	0	0	0	19
NMS-USC	OT	209	431	217	623
<b>Total</b>		291	1155	713	2663
<b>Percent of Total</b>		10.9%	43.4%	26.8%	

**Table 26 - Observed NFMA Multispecies Trips since May 2004 Landing Monkfish, with Additional Haul Specific Information**

### 5.1.1.3 Biological impact of NFMA Incidental Catch Alternatives

NMFS is proposing to reduce the monkfish incidental catch limit in the NFMA to the level that was in place prior to Framework 2, which took effect May 1, 2003, (NFMA Incidental Limit Alternative 1). This limit would apply to all permit Category E vessels and, if NFMA DAS Alternative 1 is adopted, to all monkfish limited access vessels not fishing on a monkfish-only or monkfish/multispecies DAS in the NFMA. No changes to the monkfish incidental catch limits are proposed for the SFMA.

Under the no action alternative, Alternative 2, the incidental limit in place in the NFMA allows vessels to retain monkfish up to 50% of the total weight of fish on board (where the weight of all monkfish is converted to tail weight) to a maximum of 400 lbs. (tail weight). Alternative 1 would reduce that limit to 25% of the total weight of fish on board, to a maximum of 300 lbs. The Councils increased the monkfish incidental limit in Framework 2, because at that time, the stock was nearly rebuilt and, in order to achieve the optimum yield from the fishery, there were no other management restrictions to relax in the Monkfish FMP. Since that time, the survey biomass index used to gauge the status of the stock has declined, and is below the minimum biomass threshold where the stock is considered overfished.

The purpose of the incidental limit is to minimize bycatch (discards) of monkfish on vessels fishing for other species and having an incidental catch of monkfish. A higher incidental limit, qualitatively, reduces bycatch because vessels can keep more incidentally caught monkfish, but at the same time has the potential to increase overall monkfish mortality if the limit is high enough to provide an incentive for those vessels to target monkfish under the incidental limit. Based on PDT analyses of both limits for potential impact on discards, it does not appear that the lower limit will cause a discard problem because even under the higher limit in place since Framework 2, the average monkfish landings of vessels fishing under the 400 lbs. incidental limit is 92 lbs. Therefore, Alternative 1 is likely to reduce overall monkfish mortality compared

to the no action alternative because there will be less of an incentive for vessels to target monkfish under the lower limit, and discards are not expected to increase. Furthermore, if the incentive to target monkfish under the incidental limit is reduced (Alternative 1), then vessels will be less likely to take a trip to target monkfish under the incidental limit, simultaneously reducing the frequency of incidental catch of other species.

**5.1.1.4 Biological impact of SFMA trip limit/DAS Alternatives**

The calculated DAS associated with each target TAC alternative are based upon maintaining the trip limits in effect for FY 2006. In Framework 4, these trip limits were analyzed for the number of DAS that could be allocated so that the total monkfish landings, including incidental catch, remains under the target TAC. The trip limits are expressed as tail weight per DAS, and are higher for permit category A and C vessels, compared to category B, D and H vessels because of the higher monkfish landings during the permit qualification period.

	<b>TAC</b>	<b>Trip Limit (lbs. tail weight)</b>	<b>DAS</b>
<b>DAS / TAC Alternative 1</b>	<b>3,667 mt</b>	<b>550/450</b>	<b>12</b>
<b>DAS/ TAC Alternative 2 (no action)</b>	<b>5,208 mt</b>	<b>550/450</b>	<b>24</b>

**Table 27 - SFMA trip limit/DAS alternatives under TAC Alternatives 1 and 2 (no action).**

The biological impact of DAS alternative 1 on the monkfish resource in the SFMA is less than the biological impact associated with DAS alternative 2 since it would have result in less fishing effort directed at the monkfish resource in the SFMA, leading to fewer monkfish being harvested under Alternative 1 than Alternative 2, and reduced bycatch of undersized monkfish. However, there is some potential the low level effort allowed under the proposed action would encourage some monkfish vessels to continue to target monkfish under the incidental limit outside of the monkfish DAS program. The magnitude of this increase in incidental monkfish catch cannot be calculated since it is difficult to predict fishermen’s response to changing regulations, but it is expected that the negative biological impact of the increased incidental catch would be offset by the overall benefit to the stocks of maintaining the current restrictive level of fishing effort (and actually reducing effort if the use of DAS carryover is prohibited under this interim rule).

However, due to the low incidental limit applicable to gillnet vessels fishing in the SFMA (50 lb tail weight per multispecies DAS), the any increase in incidental catch is likely to be minimal.

The proposed DAS allocation of 12 DAS could also result in a shift in effort to the NFMA, where vessels would could use up to an additional 19 monkfish DAS (to equal the total allocation of 31 DAS) under the proposed target TAC, trip limit, and DAS alternatives being proposed for that management area. However, the magnitude of such a shift in fishing effort is dependent on the ability of individual vessels to move their fishing operations to areas where they have not fished historically, and is difficult to predict. Based upon the 2 years where fishing effort was constrained in the SFMA (FY 2004 and FY 2006), it does not appear that such a shift in effort would be substantial, especially given the regulatory constraints on fishing under a multispecies DAS in the NFMA, such as double-counting of multispecies DAS in the Gulf of

Maine Differential Area, and the limited ability of vessels to target monkfish outside of a concurrent multispecies DAS in the NFMA.

The principal non-target species caught on monkfish DAS are skates and dogfish, according to the analysis of bycatch in Amendment 2. Reduced fishing effort would likely reduce the impact of monkfish fishing on these non-target species in the SFMA. However, the biological impact on non-target species of reallocating fishing effort is likely greater than the impact associated with the bycatch of non-target species by vessels fishing under a monkfish DAS. This is because the bycatch of incidentally caught species is minimal in the monkfish gillnet fishery, which is the predominant gear type used in the SFMA, due to the use of large mesh in this fishery (i.e. 10-inch or 12-inch mesh). As a result, the level of this redirected effort, and therefore impact on non-target species, would likely be greater under Alternative 1 versus Alternative 2.

#### **5.1.1.5 Biological Impacts of NFMA Trip Limits/DAS Alternatives**

Under target TAC alternative 1, NMFS is recommending the Councils' preferred trip limit/DAS alternative in Framework 4. This alternative would result in 31 DAS available to fish in the NFMA, with trip limits of 1,250 lbs. and 470 lbs. (tail weight per DAS) for Category AC and BD permits, respectively. Under target TAC alternative 2, NMFS could recommend any trip limit/DAS combination within the range of trip limits and DAS options considered under Alternative 3 (no action) in Framework 4, that has been calculated to achieve a target TAC of 4,420 mt, which is the target TAC that would result from the application of the Framework 2 control rule for FY 2007. This target TAC is approximately the mid-point between the range of potential target TAC alternatives considered for the no action alternative in Framework 4 (see Table 28 below). Biologically, the impact of the potential trip limit/DAS options under target TAC alternative 2 would be essentially the same since they would be designed to achieve the same target TAC. The biological impacts associated with the trip limit/DAS option for target TAC alternative 1 would be greater than those associated with target TAC alternative 2 since they are based upon achieving a higher target TAC for the NFMA.

If vessels are not required to use a monkfish DAS (the no-DAS option), the PDT analysis contained in Framework 4 indicates that the trip limits necessary to keep catches below the target TAC are well below the levels under the proposed incidental catch alternatives, effectively eliminating the directed fishery. Furthermore, under the no-DAS option, if the average catch equals the incidental limit (either the 300 lbs. or 400 lbs./DAS maximum), then the projected catch would exceed the target TAC, and be nearly double the target TAC under the higher incidental limit. If the average catch under the incidental limits remains at the level observed in 2005 for vessels catching less than the incidental limit, which is unlikely, then the projected catch would be about one-half the target TAC. Therefore, as discussed in Section 5.1.1.2, even with no directed fishery, there is still a high risk of exceeding the TAC under either incidental catch alternative.

Option 6 in

Table 28 is the no action alternative for both monkfish trip limits and monkfish DAS, the biological impact (i.e., landings) would be that which occurred in the most recent year, adjusted for any changes in multispecies effort (both the number of DAS available and how those DAS are used) and any changes in the catch ability of monkfish. Under this combined no action

alternative, NMFS would have no means of constraining fishing effort to ensure that either of the proposed target TACs are not exceeded. The NFMA monkfish landings for FY 2005 of approximately 9,533 mt indicates that this option is inconsistent with any of the target TAC alternatives under consideration in this action, and is, therefore, inconsistent with the rebuilding objectives of the FMP.



TAC Alternatives	TAC (mt)	TAC (lbs.)	Incidental limit	Estimated incidental landings	AC allocation of TAC	BD allocation of TAC	Trip Limit AC (tail weight/DAS)	Trip Limit BD (tail weight/DAS)	DAS (Option #)
1. 2007-2008	5,000	11,023,113	25%/300 lbs.	3,364,401	4,130,908	3,527,804	1250	886	23 (1)
				2,791,523	4,439,903	3,791,687	1250	470	31 (2)
				2,326,739	4,690,595	4,005,779	869	338	40 (3)
				4,000,000	3,792,481	3,230,632	None (No action)	None (No action)	21 (4)
				1,713,357	5,021,437	4,288,319	168	152	No action (5, MF DAS not req.'d)
			50%/400 lbs. (no action)	3,705,220	3,947,079	3,370,814	1250	683	23 (1)
				3,014,084	4,319,859	3,689,170	1250	435	31 (2)
				2,453,358	4,622,300	3,947,455	787	327	40 (3)
				4,000,000	3,792,481	3,230,632	None (No action)	None (No action)	21(4)
				1,713,357	5,021,437	4,288,319	168	152	No action (5, MF DAS not req.'d)
3. FY2007 no action, 2006 survey up 50%	5,132	11,314,123	25%/300 lbs.	2,599,382	4,700,502	4,014,239	1250	452	34 (1)
				2,326,739	4,847,558	4,139,826	1250	367	40 (2)
				2,326,739	4,847,558	4,139,826	1250	367	40 (3)
				4,000,000	3,949,627	3,364,497	None (No action)	None (No action)	22 (4)
				1,713,357	5,178,401	4,422,366	177	161	No action (5, MF DAS not req.'d)
			50%/400 lbs.(no action)	1,713,357	5,178,401	4,422,366	None (No action)	None (No action)	No action (6, MF DAS not req.'d)
				2,782,281	4,601,851	3,929,991	1250	426	34 (1)
				2,453,358	4,779,264	4,081,502	1060	353	40 (2)
				2,453,358	4,779,264	4,081,502	1060	353	40 (3)
				4,000,000	3,949,627	3,364,497	None (No action)	None (No action)	22 (4)
3. FY2007 no action, 2006 Survey down 50%	3,471	7,652,245	25%/300 lbs.	1,713,357	5,178,401	4,422,366	177	161	No action (5, MF DAS not req.'d)
				1,713,357	5,178,401	4,422,366	None (No action)	None (No action)	No action (6, MF DAS not req.'d)
				3,888,928	2,029,834	1,733,483	793	269	16 (1)
				3,587,679	2,192,320	1,872,246	493	222	20 (2)
				2,326,739	2,872,438	2,453,068	225	137	40 (3)
50%/400 lbs.(no action)	4,500,000	1,702,212	1,450,033	None (No action)	None (No action)	7 (4)			
	1,713,357	3,203,280	2,735,608	89	76	No action (5, MF DAS not req.'d)			
	1,713,357	3,203,280	2,735,608	None (No action)	None (No action)	No action (6, MF DAS not req.'d)			
	4,338,023	1,787,604	1,526,618	506	208	16 (1)			
	3,974,589	1,983,631	1,694,025	380	180	20 (2)			
	2,453,358	2,804,143	2,394,745	215	132	40 (3)			
	4,500,000	1,702,212	1,450,033	None (No action)	None (No action)	7 (4)			
	1,713,357	3,203,280	2,735,608	89	76	No action (5, MF DAS not req.'d)			
	1,713,357	3,203,280	2,735,608	None (No action)	None (No action)	No action (6, MF DAS not req.'d)			

Table 28 - NFMA trip limit/DAS alternatives under TAC Alternatives 1 and 3 (no action). Shaded cells are those where the allowable trip limit is lower than the incidental catch limit.

#### **5.1.1.6 Biological impact of Moratorium on Directed Fishing**

The overall impact on monkfish of a moratorium on directed fishing would be a reduction in overall monkfish catch, and an increase in the rate at which the stock biomass increases, initially as more fish survive to older ages (growth), and subsequently as those fish spawn and provide additional numbers of fish contributing to the stock biomass (recruitment). The magnitude of this effect cannot be calculated, however, especially considering the uncertainty about the impact of cannibalism by older fish and the rate of natural mortality, as well as the lack of data about the rate of growth and reproductive capabilities of older monkfish.

A closure of the directed fishery only in the SFMA could result in a shift in effort to the NFMA, where vessels would be allowed to use up to 31 monkfish DAS under the proposed action for that area. However, the magnitude of such a shift in fishing effort is dependent on the ability of individual vessels to move their fishing operations to areas where they have not fished historically, and is difficult to predict. Based upon the 2 years where fishing effort was constrained in the SFMA (FY 2004 and FY 2006), it does not appear that such a shift in effort would be substantial, especially given the regulatory constraints on fishing under a multispecies DAS in the NFMA, such as double-counting of multispecies DAS in the Gulf of Maine Differential Area, and the limited ability of vessels to target monkfish outside of a concurrent multispecies DAS in the NFMA.

A moratorium on directed fishing (no monkfish DAS) in the SFMA or both management areas would also result in an increase in the amount of monkfish caught incidental to fishing for other species (as vessels redirect their effort to other fisheries), and to a lesser extent, to targeted fishing under the monkfish incidental limit, which could also result in increased discards. The magnitude of the potential increase in incidental catch resulting from a re-direction of fishing effort cannot be calculated since it is difficult to predict fishermen's response to a closure of the directed monkfish fishery in the SFMA or both management areas. In the NFMA, monkfish is incidentally caught in the limited access multispecies and limited access scallop fisheries, which are both subject to effort control requirements in the form of DAS. Monkfish are also incidentally caught in the general category scallop fishery in the NFMA, but these vessels are not authorized to retain any monkfish due to the restrictions placed on the small dredge exempted fishery (under the NE Multispecies FMP) in the NFMA. As a result, any shift in effort into the limited access multispecies and scallop fisheries in the NFMA is constrained by the regulations already imposed on those fisheries. In the SFMA, monkfish is a bycatch in the scallop, summer flounder, dogfish, and skate fisheries, and to a lesser extent, in the multispecies fishery (simply due to the limited availability of multispecies in this area). In the SFMA, general category scallop vessels are allowed to keep a limited amount of monkfish (50 lb tail weight per day up to 150 lb per trip), whereas summer flounder, dogfish, and skate vessels can retain monkfish tails (by weight) up to 5 percent of the weight of fish on board, with a cap of 450 lb tail weight per trip if fishing in the Southern New England Regulated Mesh Area. Since vessels participating in the general category scallop, summer flounder, dogfish, and skate fisheries are not subject to effort controls like limited access multispecies and limited access scallop vessels, a shift in effort into any of these fisheries could result in an increase in the incidental catch of monkfish.

Monkfish is a component catch of the multispecies fishery, particularly the trawl fishery in the NFMA. Available observer data from May 2004 through the present, indicates that approximately 29 percent of trips targeting multispecies harvest monkfish in excess of the incidental limit (Table 25). However, there appears to be some level of directivity on monkfish within these multispecies trips since approximately 22 percent of the total hauls from the observed trips caught more monkfish than multispecies, and approximately 19 percent of the total hauls listed monkfish as a targeted species (Table 29). Due to the interconnectedness of the monkfish and the multispecies fishery in the NFMA, it is likely that a closure of the directed fishery in this area could result in an increase of monkfish discards depending on a vessel's ability to avoid monkfish when targeting multispecies.

In general, the negative effect increased incidental landings and discards of monkfish resulting from a closure of the directed fishery in the SFMA or both management areas would be offset by the benefits to biomass growth resulting from such a closure. Furthermore, the redirection of effort to other fisheries by displaced monkfish vessels would have a negative impact on the rebuilding of other stocks. However, the magnitude of that shift, and the resulting degree of impact, cannot be determined due to the difficulty associated with predicting fishermen's response to the closure of the directed fishery.

DAS Trip Type	Gear Category	Over Monkfish Incidental Limit	More Monkfish than Multispecies	Monkfish Listed as Target Species	Total Hauls
NMS-DAY	GG	54	1560	1233	4796
NMS-HGH	LL	0	0	0	100
NMS-MUL	GG	8	27	17	220
NMS-MUL	LL	0	0	0	62
NMS-MUL	OT	125	656	674	4111
NMS-TRP	GG	6	76	77	441
NMS-USC	GG	0	0	0	6
NMS-USC	LL	0	0	0	192
NMS-USC	OT	1131	3871	3490	18505
<b>Total</b>		1324	6190	5491	28433
<b>Percent of Total</b>		4.7%	21.8%	19.3%	

**Table 29 - Observed NFMA Multispecies Trips Since May 2004, by Haul**

#### 5.1.1.7 Biological impact of DAS Carryover Alternatives

Under this interim rule, NMFS is proposing to prohibit the use of carryover DAS. Current regulations at 50 CFR 648.92(a)(1) authorize limited access monkfish vessels to carry over up to 10 unused DAS from the previous fishing year to the current fishing year. However, when the annual DAS allocation is only 12 DAS, allowing up to 10 carryover DAS nearly doubles the potential fishing effort. In fact, available monkfish landings data for FY 2006 from May through December 2006 (i.e., 8 months of the fishing year) indicate that the fishery in the SFMA is over the FY 2006 target TAC by 21 percent. Prohibiting the use of carryover DAS under this interim rule is more conservative biologically than the no action alternative since it would help ensure that the target TACs being proposed in this interim rule are not exceeded, which is consistent with the biological objectives of the FMP.

#### **5.1.1.8 Biological impact of Permit Category H boundary Alternatives**

Consistent with the Council's recommendation in Framework 4, NMFS is considering moving the boundary of the Permit Category H Fishery 20 miles northward, from 38°20'N (Alternative 2, no action) to 38°40'N (Alternative 1). The Permit Category H fishery was established in Amendment 2 for vessels that did not qualify for a limited access permit in the initial FMP. A total of seven vessels qualified and only five or six are actively fishing. These vessels are allocated the same number of DAS and trip limits as Category B and D vessels fishing in the SFMA, and the vessels are considered in the analysis of the TAC that is used to set the management measures.

The vessels have limited season when monkfish are available in late spring, and are constrained by the closures in place to protect sea turtles, such that the area available is approximately 20 miles wide. The vessels are prohibited from targeting monkfish north of the boundary line. At the request of the industry, the Councils considered moving the boundary northward 20 miles in Framework 4 to increase the opportunity for the affected vessels to prosecute their fishery within the allocation of DAS and trip limits, and provide some additional area to move into, in the event sea turtles appear in the open area. For Framework 4, the PDT reviewed DAS and landings data for vessels holding category H permits, and concluded that there was no technical basis for preventing an adjustment to the boundary because the DAS allocated to those vessels, and used by them, was accounted for and considered in Amendment 2, and has been incorporated into the DAS/trip limit analyses for the SFMA. NMFS has concluded that based upon the PDT's analysis of this measure for Framework 4, there is likely no biological impact on target or non-target species of the proposed action compared to taking no action.

#### **5.1.1.9 Biological Impact of Scallop Closed Area Access Program Monkfish Incidental Limit Alternatives**

Under the no action alternative (Alternative 2), limited access scallop vessels fishing in the Closed Area Access programs have a monkfish incidental limit applicable to vessels fishing with a dredge and not on a scallop DAS, or 50 lbs. per day to a maximum of 150 lbs. tail weight. Under the proposed action, Alternative 1, the incidental limit applicable to those vessels would be the same as applies to scallop vessels fishing on a scallop DAS, or 300 lbs. tail wt. per DAS, except that the incidental limit will be based only on the time that the vessel is in the closed area, and not including steaming time. The two alternatives will likely have the same biological impact because the effect of Alternative 1 would be to convert incidentally caught monkfish from discards to landings. NMFS does not expect that Alternative 1 will present any new incentive for scallop vessels to target monkfish under the increased incidental limit, given the relative value of the scallop catch to the difference in allowable monkfish landings under the two alternatives.

#### **5.1.2 Impact on Protected Species**

NOAA Fisheries previously considered the effects of implementation of Framework 2 on Endangered Species Act (ESA)-listed cetaceans, sea turtles, shortnose sturgeon, and Atlantic salmon during Section 7 consultation on the fishery, which was completed on April 14, 2003. The Biological Opinion (Opinion) for that consultation concluded that the proposed action was not likely to result in jeopardy to any ESA-listed species inhabiting the management unit. A revised Incidental Take Statement was provided for the anticipated taking of loggerhead,

leatherback, green, and Kemp's ridley sea turtles in the fishery. Reasonable and prudent measures to reduce the likelihood of takes were also provided to address the possible entanglement of sea turtles in the fishery.

#### **5.1.2.1 Impacts of TAC Alternatives on Protected Species**

The TACs are the basis for developing effort controls (principally, DAS and trip limits), with the effect that each alternative is dependent on the relative magnitude of the TAC. With respect to protected species, the most relevant factor about the range of the proposed TACs is the fact that they are likely to reduce exploitation for the northern stock of monkfish, and maintain exploitation at current levels for the southern stock. As such, impacts to protected species should not be substantially different, and possibly less than they are under the current management measures.

Under the no action alternative, the higher target TAC that would result for the SFMA would allow for removal of more monkfish from the population as a result of increased effort and possibly result in greater impacts to protected species. The converse would be true for the lower target TAC that would result for the NFMA under this alternative.

#### **5.1.2.2 Impacts of NFMA DAS Alternatives on Protected Species**

NMFS is considering two alternatives for monkfish DAS requirements in the NFMA, either to require vessels to use monkfish DAS when exceeding the monkfish incidental limit (NFMA DAS Alternative 1, the proposed action), or to continue the current program that does not require monkfish limited access vessels exceeding the incidental limit to call in a monkfish DAS (NFMA DAS Alternative 2, No Action). In comparing these alternatives, better monitoring of catch and effort, in this case using a monkfish DAS, nearly always enhances the understanding of interactions with protected resources. More importantly, the requirement in Alternative 1 would allow for the calculation of DAS and trip limit combinations that are expected to keep monkfish catches below the target TAC. Control over the TACs would directly control effort, possibly producing indirect benefits to protected species or at least resulting in effects that are unchanged from current levels.

#### **5.1.2.3 Impacts of NFMA Incidental Catch Alternatives on Protected Species**

The incidental limit currently in place (Alternative 2) in the NFMA allows vessels to retain monkfish up to 50% of the total weight of fish on board (where the weight of all monkfish is converted to tail weight) to a maximum of 400 lbs. (tail weight). The proposed action, Alternative 1 would reduce that limit to 25% of the total weight of fish on board, to a maximum of 300 lbs.

The purpose of the incidental catch limit is to minimize bycatch (discards) of monkfish on vessels fishing for other species and having an incidental catch of monkfish. As stated in Section 5.1.1.3, Alternative 1 is likely to reduce overall monkfish mortality compared to the no action alternative because there will be less of an incentive for vessels to target monkfish under the lower limit. While it is unclear what the impacts of a reduced incidental limit might be on protected species, given that a reduction in monkfish bycatch does not necessarily equate to a reduction in protected species interactions, the reduced incentive to target monkfish under the lower incidental limit reduces the likelihood of interactions with protected species. The no action

alternative would result in the status quo with respect to protected species impacts, and would not realize any possible ancillary benefits of a reduced incentive to target monkfish, if there is a relationship between the gear types that are subject to this measure and protected species interactions. It is also possible that neither Alternative 1 nor 2 is likely to result in discernable or quantifiable changes in effects to protected species.

#### **5.1.2.4 Impacts of SFMA Trip Limits and DAS Alternatives on Protected Species**

Alternative 1 would result in the allocation of fewer monkfish DAS than Alternative 2. While interactions with protected species are dependent on the prosecution of the fishery in areas where sea turtles, cetaceans and pinnipeds are distributed, gillnet gear, the most prevalent gear in the SFMA monkfish fishery, already has documented interactions with the aforementioned protected species. Increased DAS under Alternative 2 would have negative impacts to protected species if these effort increases overlap with protected species. Finally, impacts resulting from vessels fishing the difference between their NFMA and SFMA DAS allocations as monkfish-only or monkfish/multispecies DAS in the NFMA, would be mitigated by the fact that monkfish-only DAS effort would be limited to the existing Monkfish Gillnet Exempted Fishery in the Gulf of Maine or would have to occur within the confines of the number of allocated multispecies DAS.

#### **5.1.2.5 Impacts of NFMA Trip Limits and DAS Alternatives on Protected Species**

Gillnet gear, which is the gear with documented interactions with protected species, only accounts for 25-30% of NFMA monkfish landings. As discussed in the previous section, if DAS are the primary factor in evaluating protected species interactions, as opposed to trip limits, the larger the number of allocated DAS under any of the options discussed, the greater the risk of protected species interactions. This assumption is contingent on an overlap between effort and the presence of any of the species of protected species that interact with the monkfish fishery. A possible mitigating factor is that some fishermen have stated they reduce the number of nets fished when trip limit levels are low. Reduced numbers of nets may contribute to reduced risks, but such actions may be difficult to evaluate if they are not required and without significant observer coverage. Nevertheless, day gillnet vessels currently fishing for monkfish in the NFMA on a multispecies DAS are constrained by the number of nets they can fish under the multispecies regulations. Under trip limit/DAS Option 6, the No Action Alternative with respect to DAS and trip limits, would result in impacts that reflect the status quo since it would likely neither increase nor decrease the amount of gear in the water that could potentially interact with protected species.

#### **5.1.2.6 Impacts of Moratorium on Directed Fishing on Protected Species**

The overall impact of a moratorium on directed fishing would be a reduction in overall monkfish catch and possible benefits to protected species only if this effort did not shift to fisheries that result in similar or greater negative impacts on protected resources.

If a closure of the directed fishery were only to occur in the SFMA, then there is the possibility that some monkfish fishing effort could shift from the SFMA to the NFMA. As noted previously, gillnet gear has documented interactions with protected species. Therefore, any shift in gillnet effort from the SFMA to the NFMA resulting from a closure of the directed fishery in the SFMA could increase potential interactions with protected species. However, the ability of gillnet vessels to fish under only a monkfish DAS (and not under a concurrent Northeast

multispecies DAS) is limited to a specific area in the Gulf of Maine from July 1<sup>st</sup> through September 14<sup>th</sup> of every year. As a result, the magnitude of such a shift in fishing effort is dependent on the ability of individual vessels to move their fishing operations to areas where they have not fished historically, and is difficult to predict. Based upon the 2 years where fishing effort was constrained in the SFMA (FY 2004 and FY 2006), it does not appear that such a shift in effort would be substantial, especially given the regulatory constraints on fishing under a multispecies DAS in the NFMA, such as double-counting of multispecies DAS in the Gulf of Maine Differential Area, and the limited ability of vessels to target monkfish outside of a concurrent multispecies DAS in this area.

Finally, a moratorium on directed fishing in only the SFMA or both management areas could result in the increased targeting of monkfish under the incidental limit. Since vessels fishing in the NFMA would still be constrained by their multispecies DAS, then an increase in the targeting of monkfish under the incidental catch limit would be the same relative to the status quo since it would not result in an increase in overall effort. In the SFMA, the ability of vessels to target monkfish under the incidental limit is constrained by the low incidental catch limits applicable to vessels not fishing under a DAS program in this area, or by the applicable DAS program (multispecies or scallop). Therefore, the benefits to protected resources resulting from a reduction in directed monkfish fishing effort outweighs any marginal increase in increased effort due to the targeting of monkfish under the incidental catch limits applicable to vessels fishing in the SFMA.

#### **5.1.2.7 Impacts of DAS Carryover Alternatives on Protected Species**

Using the same logic as above regarding the relationship between DAS and fishing effort, a reduction in carryover DAS could result in a potential benefit to protected species relative to the status quo since it would reduce potential fishing effort.

#### **5.1.2.8 Permit Category H Fishery Boundary on Protected Species**

The proposed change to the boundary of the fishery that was established in Amendment 2 for vessels that did not qualify for a limited access permit in the initial FMP may have some benefits to protected species, particularly sea turtles. Of the seven vessels that initially qualified, only five or six are actively fishing. Because they have a limited season when monkfish are available in late spring and are constrained by the closures in place to protect sea turtles such that the area available is approximately 20 miles wide, this alternative proposes to move the boundary northward 20 miles increasing the opportunity for the affected vessels to prosecute their fishery within the allocation of DAS and trip limits. An expanded area would serve to spread effort out in the event sea turtles appear in the open area, possibly reducing the risks of interactions, particularly when it is known that fishing effort often concentrates along the edges of closed areas. This measure would likely produce a greater positive outcome than the status quo, an area that historically has not accounted for interactions beyond any other open area.

#### **5.1.2.9 Protected species impact of Scallop Closed Area Access Program Monkfish Incidental Limit Alternatives**

Since the two alternatives are equivalent in terms of their impact on fishing effort, there is no difference in terms of impact on protected species. Scallop vessels will continue to fish at the same level while targeting scallops under the closed area access program regardless of the

monkfish incidental limit. This limit does not provide an incentive to target monkfish and increase fishing effort by the affected vessels. See discussion above under Section 5.1.1.9.

## **5.2 Habitat Impacts**

This action would maintain SFMA monkfish effort in FY 2007 at the same level as in FY 2006, therefore there would be no change in habitat effects from current conditions associated with this action in the SFMA. In the NFMA, where monkfish fishing is predominantly with trawl gear, the alternatives under consideration will reduce the number of DAS available for targeting monkfish from the current level (under no action). These alternatives are not likely to change the impact of the monkfish fishery on EFH of any managed species relative to prior EFH assessments of the fishery, however, because under no action, monkfish effort is embedded in multispecies effort (i.e., if vessels are not required to use a monkfish DAS in the NFMA). In other words, the proposed alternatives, while potentially reducing the DAS available for targeting monkfish, do not change the overall DAS allocated to these vessels under the Multispecies FMP.

In general, the activity described by this proposed action, fishing for monkfish, occurs off the New England and Mid-Atlantic coasts within the U.S. EEZ. Thus, the range of this activity occurs across the designated EFH of all Council-managed species (see Amendment 11 to the Northeast Multispecies FMP for a list of species for which EFH was designated, the maps of the distribution of EFH, and descriptions of the characteristics that comprise the EFH). EFH designated for species managed under the Secretarial Highly Migratory Species FMPs are not affected by this action, nor is any EFH designated for species managed by the South Atlantic Council as all of the relevant species are pelagic and not directly affected by benthic habitat impacts.

The proposed action, would require, for the first time since FMP implementation, vessels to use monkfish DAS in the NFMA, and fish under a monkfish trip limit. This action will also reduce the monkfish incidental catch limit in the NFMA to the level established in the original FMP. Other measures adopted in this action include: An expansion of the area accessible to permit Category H vessels by 20 miles; restoration of the monkfish incidental limit on scallop vessels fishing in the closed area access programs to that applicable to vessels fishing on a scallop DAS; and a change to the DAS carryover provision. These measures are described in detail in Section 3.0.

The proposal to require vessels in the NFMA to use monkfish DAS would not result in a reduction in overall mobile gear effort in that area, even though the monkfish TAC is reduced substantially, since all mobile gear vessels are required to fish under a multispecies DAS when fishing on a monkfish DAS. Hence their overall effort is controlled by DAS allocated under the Multispecies FMP. While this action will not reduce any adverse impacts of the fishery on EFH, it is similarly not expected to increase such effort. The proposed prohibition on the use of carryover DAS contained in this interim rule will reduce potential fishing effort relative to the status quo. The other actions proposed in this action will not have any material change to the effect of the fishery on EFH.

The fishery must continue to respect the 2,811 square nautical miles of habitat closed areas established by the Amendment 13 as well as the Oceanographer and Lydonia Canyon closures adopted in Amendment 2 to the Monkfish FMP. Therefore, effort will occur in areas that are



already open to bottom tending mobile gears or by gears that have been determined to not adversely impact EFH in a manner that is more than minimal and less than temporary in nature.

In summary, for the reasons stated above, the proposed action would not have an adverse impact on EFH for any federally managed species in the region. Because the EFH Final Rule (50 CFR 600.920 (e)(1-5)) states that “federal agencies are not required to provide NMFS with assessments regarding actions that they have determined would not adversely affect EFH”, no EFH Assessment is provided for this action.

### 5.3 Economic Impacts of the Alternatives

The proposed management changes encompass a variety of measures that would impact vessels participating in the monkfish fishery. The measures under consideration in this temporary interim rule include the establishment of an annual TAC for the 2007 fishing year, a requirement that vessels fishing in the NFMA call in a monkfish DAS when planning to land more than the incidental trip limit, a change in the NFMA incidental limit, trip limits and DAS allocations for the NFMA and SFMA, a moratorium on directed fishing, and prohibition on the use of carryover DAS during the interim rule period.

All of the entities (fishing vessels) affected by this action are considered small entities under the SBA size standards for small fishing businesses (\$4.0 million in gross sales). As of October 13, 2006, there are approximately 731 limited access monkfish permit holders and approximately 2,121 vessels holding an open access Category E permit. This action would affect limited access monkfish vessels while fishing for monkfish in the SFMA, and all vessels fishing for monkfish in the NFMA.

Based on activity reports for the 2005 fishing year (the most recent fishing year for which complete information is available) there were 627 limited access permit holders participating in the monkfish fishery. Of these, 150 fished for monkfish exclusively in the NFMA and 226 fished for monkfish in only the SFMA. The remaining 251 vessels fished for monkfish in both management areas. During the same time period, 570 incidental permit holders reported landing monkfish. Of these, 163 landed monkfish solely from the NFMA, 344 landed monkfish solely from the SFMA, and 63 landed monkfish from both areas.

Table 30 reports the number of vessels fishing in each area.

Permit Category	Only NFMA Trips	Only SFMA Trips	NFMA and SFMA Trips
A	1	9	2
B	0	29	3
C	49	98	149
D	100	85	97
E	163	344	63
H	0	5	0

**Table 30 - Number of vessels fishing in NFMA and SFMA by permit category.**

The proposed measures would affect at least the 627 vessels that fished for monkfish in the NFMA and SFMA, as well as the 226 incidental permit holders landing monkfish from the NFMA. However, the measures would be likely to have greatest effect on the 163 limited access

vessels that fished for monkfish exclusively in the NFMA. In addition, monkfish dealers will likely be affected by the reduction in the NFMA and total TAC. This may increase their costs relative to FY 2006. However, while the NFMA TAC will decrease there will be a concurrent increase in TAC in the SFMA, which could mitigate any cost increases.

The following sections provide a discussion of the impacts for each measure. Where possible, a quantitative assessment of the impacts is provided. If a quantitative assessment is not possible, an attempt is made to identify the types and number of vessels that may be reasonably expected to be affected.

### **5.3.1 TAC Alternatives**

Under the proposed action, the combined TAC for both monkfish management areas would be decreased by 24 percent compared to fishing year 2006. While the TAC for the NFMA would be decreased by approximately 35 percent, the SFMA TAC would remain the same. As was previously mentioned, there are three types of vessels that may be affected by the proposed measures, and thus the change in the TAC: Vessels fishing solely in the NFMA, vessels fishing solely in the SFMA, and vessels fishing in both areas. There would be differential impacts on participating vessels depending on the management area in which they fish. However, in general the choice of target TAC alternative would affect any vessel fishing in either area, to the extent that they have to change their fishing behavior due to the imposition of DAS requirements or changes in current trip limits. The analyses in Section 5.3.4 below provide a synthesis of the impacts for each combination of trip limits and DAS alternatives for the aforementioned three types of vessels that may be affected by the proposed measures.

The other target TAC alternative considered, Alternative 2, is the no action alternative. Under the no action alternative, NMFS would implement target TACs based upon the Framework 2 control rule, which would result in a target TAC for the NFMA that is 12-percent less than the proposed target TAC, and a target TAC for the SFMA that is 42-percent greater than the proposed target TAC.

### **5.3.2 NFMA DAS Alternatives**

In FY 2005, there were 233 limited access monkfish vessels also holding limited access multispecies permits that landed more than the 400 pound incidental trip limit for monkfish while fishing in the NFMA DAS. There were 249 such vessels landing more than the proposed 300 pound incidental trip limit. Under the proposed action, NFMA DAS Alternative 1, these vessels will be required to call in a monkfish DAS if they wish to land more than the incidental trip limit. However, this is essentially an administrative burden, as it does not in itself necessarily entail a change in fishing practices.

As was noted in the biological impacts section, if the no action alternative were adopted, and vessels would not be required to use a monkfish DAS when fishing in the NFMA, the trip limits necessary to keep landings below the target TAC are below the proposed incidental limits, essentially eliminating the directed fishery. The resulting economic impacts are shown with the results from the trip limit model for the various incidental limits and DAS/trip limit alternatives in Section 5.3.4.

### 5.3.3 NFMA Incidental Limit Alternatives

The proposed change in the NFMA incidental catch limit would impact vessels fishing in the NFMA and landing more than the proposed incidental catch. These vessels will still have some number of DAS that can be used to fish at more than the incidental limit and will only be constrained to the extent that they have to reduce their monkfish landings on days fished over the monkfish DAS limit. In FY 2005, there were 250 limited access monkfish vessels (including both vessels that held, and did not hold multispecies limited access permits) fishing in the NFMA and landing more than the current 400 pound incidental trip limit, and 277 landing more than the proposed 300 pound incidental trip limit.

Table 31 shows the percentage of trips by permit type exceeding the current 400 pound and the proposed 300 pound incidental trip limit. This information indicates that there is no substantial difference (less than 5 percent), in terms of impacted trips, between the proposed action and the no action alternative.

Permit Category	% of trips less than 400 lbs.	% of trips less than 300 lbs.
A	13.2%	5.3%
B	97.1%	92.8%
C	48.8%	42.2%
D	81.2%	75.8%
E	97.9%	96.0%
Total	82.4%	78.2%

**Table 31 - Percent of trips landing less than current and proposed incidental limit.**

The economic impacts of the proposed action, NFMA Incidental Limit Alternative 1 (300 pounds), versus the current incidental limit (Alternative 2) are incorporated into the analysis of trip limits and DAS alternatives below.

### 5.3.4 Trip Limit and DAS Alternatives

As was previously noted, the trip limit and DAS alternatives would impact vessels fishing for monkfish in either area, to the extent that it impacts their normal fishing activity. As done in previous annual adjustments, the estimation of relative economic impacts was accomplished through the use of a trip limit model to estimate average changes in per-trip vessel returns net of operating costs and crew payments, as well as changes in monkfish revenue. The analysis uses data from observed trips to simulate outcomes under alternative trip limits and DAS allocations. The trip data is compiled from FY 2005 vessel trip reports and dealer weighout slips, with the former providing catch and location data and the latter providing average monthly prices, which are used to calculate revenue estimates.

Changes in trip limits and DAS allocations are amenable to analysis when moving from higher to lower limits. While FY 2006 trip limits are the same or higher than those proposed for FY 2007, the 2006 fishing year is not yet complete. FY 2005 trip limits are also higher than the proposed limits, and vessels were permitted to fish 39.3 DAS in both management areas, which is greater than the proposed limits. Therefore, this data satisfies the requirements for this analysis and can be used to analyze the economic effects of the proposed changes. As has been the case in prior

annual adjustments, the effect was evaluated based on a comparison of the expected return for alternative trip-taking strategies. A vessel may abandon a trip if the trip limit causes earnings to fall below zero, they may continue to fish while discarding any monkfish above the trip limit, or they may fish up to the trip limit and then return to port. Assuming that a trip is taken, vessels may choose to continue fishing while discarding monkfish over the trip limit so long as the revenue earned from other species offsets the costs of fishing. Trips where other species make up a relatively small portion of the trip revenue may lead to trips being discontinued when the trip limit is reached, since the cost of continued fishing would exceed the additional revenue.

For the purpose of this analysis, it is assumed that if vessels took trips in both the NFMA and SFMA, these vessels are indifferent between taking a trip in either area. Rather they will choose to take the trip that maximizes net trip revenue. To model this assumption, all trips taken by limited access monkfish permit holders landing monkfish were ordered by descending revenue for each vessel. Each trip is then analyzed as follows. If the total monkfish landed is less than or equal to the incidental trip limit or the relevant monkfish management area DAS limit has not been reached, then the trip is unchanged. If the DAS limit has been reached, then the monkfish catch is reduced to the relevant incidental catch limit and the appropriate strategy for the vessel (i.e., ending the trip or continuing to fish while discarding any additional monkfish catch) is determined along with the return (in terms of revenue) from the strategy. If the DAS limit has not been reached and the monkfish catch is greater than the incidental limit, then the monkfish catch is reduced to the relevant trip limit and the vessel's revenue maximizing strategy and resulting return is determined.

The relative change in net return to the vessel was estimated by calculating the average per-trip returns to the vessel owner using both the FY 2006 trip limits and the proposed FY 2007 trip limits. These returns take into account operating costs, which were estimated using trip cost data collected on observer logs in FY 2005. Trips landing monkfish during FY 2005 in the NFMA and SFMA were identified, and the total trip cost was estimated as using a regression of the logarithm of trip cost against the logarithms of days absent, the number of crew, and a dummy variable indicating if the vessel gear type is gillnet. The parameters from this regression were then used to construct estimates of trip cost and cost per day absent for all trips landing monkfish during FY 2005. Returns to the vessel were calculated using a standard 60/40 lay system where 40 percent of the gross revenue goes to the vessel and 60 percent is shared among the crew, who pay for the operating expenses for the trip. Therefore, the net to the crew is the difference between the 60 percent share and the operating costs.

Since a necessary assumption of the trip limit model is that fishing location decisions are unchanged under new rules, an analysis of the impacts of the proposed measures is conducted separately for vessels fishing only in the NFMA, vessels fishing only in the SFMA, and vessels fishing in both areas. In reality, this is a simplification and a limitation of the model, since vessels could change their fishing location in order to mitigate some of the negative impacts from regulations. The results are presented as the single year relative change from the FY 2006 baseline to each of the alternative combinations. Any impacts may be mitigated by an expected increase in monkfish prices due to the overall reduction in monkfish landings. At this time, no model exists that can predict monkfish prices with a sufficient degree of accuracy, due to the nature of the monkfish market. There is a limited market for monkfish in the U.S., with the

majority of monkfish landings being exported to Europe and Asia. The price of monkfish received in this country is dependent on the economic conditions in the countries to which monkfish is exported, as well as worldwide landings of monkfish.

### 5.3.4.1 Vessels Only Fishing in NFMA

Based on the trip limit model, the results of which appear in Table 32, the per trip average vessel return on monkfish trips would decline from 2.8 to 12.1 percent, depending on the incidental limit and DAS/trip limit alternative chosen. Average crew return would decline between 4.6 percent and 20.1 percent, with revenues from monkfish declining between 10.5 percent and 45.8 percent. For these vessels, the simulation indicates that the combination of the 400 pound incidental limit, no trip limit, and 21 DAS would have the smallest impact. The largest impact would be seen with the alternative not requiring monkfish DAS but with trip limits of 168 pounds for permit categories A and C and 152 pounds for permit categories B and D. As mentioned previously, these trip limits are less than either the current or proposed incidental trip limit under this alternative, effectively closing the directed fishery in the NFMA. The proposed action would result in a 4.9 percent reduction in average vessel return, a 8.2 percent reduction in crew payment, and a 18.7 percent reduction in monkfish revenue compared to the status quo.

Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
300	No Limit	No Limit	21	-4.5%	-7.4%	-16.8%
	1250	886	23	-4.8%	-8.1%	-18.4%
	<b>1250</b>	<b>470</b>	<b>31</b>	<b>-4.9%</b>	<b>-8.2%</b>	<b>-18.7%</b>
	869	338	40	-5.1%	-8.6%	-19.6%
	168	152	Not. Req.	-12.1%	-20.1%	-45.8%
400	No Limit	No Limit	21	-2.8%	-4.6%	-10.5%
	1250	683	23	-3.5%	-5.7%	-13.1%
	1250	435	31	-3.6%	-5.9%	-13.6%
	787	327	40	-4.1%	-6.8%	-15.6%
	168	152	Not. Req.	-12.1%	-20.1%	-45.8%

**Table 32 - Change from FY 2006 to Alternatives - Vessels Only Fishing in NFMA. Proposed action is bold.**

### 5.3.4.2 Vessels Only Fishing in SFMA

Simulation results for vessels only fishing in the SFMA appear in Table 33. Since the proposed action would not change the trip limits or DAS for the SFMA, there would be no expected change from FY 2006 levels. Under the no action alternative, the DAS available to vessels fishing in the SFMA would be increased to approximately 24 DAS based upon the DAS/Trip limit analysis contained in Appendix II of Framework 4. The proposed action in Framework 4 would allocate 23 DAS to vessels fishing in the SFMA, which is similar to DAS level that would result under the no action alternative. Therefore, the economic impacts of the no action alternative are expected to be similar to those expected under the proposed action contained in Framework 4. The economic benefits of the Framework 4 proposed action are presented in Table 33.

Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS	Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
<b>50</b>	<b>550</b>	<b>450</b>	<b>12</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
50	550	450	23*	3.3 %	5.5%	51.2%

\* From Framework 4 analysis

**Table 33 - Change from FY 2006 to Alternatives - Vessels Only Fishing in SFMA. Proposed action is bold.**

Two economic issues raised by the fishing industry in response to the proposed action are the potential impacts of shifting effort to the NFMA, and the economic impact resulting from the short notice provided to the public of this interim rule. The ability of a vessel owner to move all or a portion of his/her monkfish fishing activities to the NFMA would help mitigate some of the negative economic effects associated with this action, but could have negative impacts to vessels fishing in the NFMA resulting from reduced harvest rates and/or market value associated with the increased harvest of monkfish from this area. In terms of the timing of the proposed interim action, it is understood that most vessel owners must purchase new nets, mend existing nets, and purchase necessary other equipment well in advance of the start of the fishing year. Therefore, any sudden change to management measures, particularly one that would result in reduced fishing effort, has an economic effect. However, the economic impacts associated with a sudden change to management measures is difficult to quantify since they are dependent on several factors that affect the individual vessel such as the need for new or replacement gillnet tags, the need for new nets (depending on the number the vessel normally fishes), and the need to purchase or replace any necessary marine mammal compliant gear.

#### **5.3.4.3 Vessels Fishing in Both NFMA and SFMA**

Vessels fishing in both the NFMA and SFMA will be simultaneously affected by the incidental trip limit and DAS/trip limit alternative chosen for the NFMA and the DAS/trip limit alternative chosen for the SFMA. While these vessels have a demonstrated capability to shift between areas and may be more likely to change fishing locations than vessels that have historically fished solely in one area, the trip limit model does not incorporate this possibility. Rather, it is assumed that vessels continue fishing in the same locations they did previously and results are calculated for each possible combination of NFMA and SFMA alternatives. Overall, the ability of these vessels to fish in both areas mitigates the impacts from changes in regulations in either area, as has been seen in past annual adjustments. As was the case with vessels fishing only in the SFMA, it was necessary to assume that all vessels would be subject to the minimum incidental trip limit of 50 pounds/DAS up to 150 pounds total in the SFMA. Since some vessels would be permitted to retain more than this amount, the impacts on these vessels would be mitigated. The results are presented in Table 34. The specific combination of measures leading to the best outcome for this set of vessels is the combination of a 400 pound incidental limit, no trip limit for directed trips, and 21 DAS in the NFMA and 550 pound trip limit for categories A, C, and G vessels, 450 pound trip limit for categories B, D, and H, and 12 DAS in the SFMA. This combination of measures leads to the smallest reductions in monkfish revenues and average changes in vessel revenue and crew payment. The proposed action would result in a 0.8 percent

reduction in vessel return, a 1.2 percent reduction in crew payment, and a 13.5 percent reduction in monkfish revenue. The impacts associated with the preferred SFMA DAS and trip limit alternative contained in Framework 4 is also presented in Table 34 since the impacts would be similar to those expected under the no action alternative contained in this interim action.

NFMA Alternatives			SFMA Alternatives				Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue		
Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH				DAS	
<b>300</b>	No Limit	No Limit	21	50	550	450	12	-0.7%	-1.0%	-11.7%	
							23*	0.0%	-0.2%	-9.6%	
	1250	886	23	50	550	450	12	-0.9%	-1.2%	-12.4%	
							23*	0.0%	-0.3%	-10.3%	
	<b>1250</b>	<b>470</b>	<b>31</b>	<b>50</b>	<b>550</b>	<b>450</b>	<b>12</b>	<b>-0.8%</b>	<b>-1.2%</b>	<b>-13.5%</b>	
							23*	-0.2%	-0.5%	-12.6%	
	869	338	40	50	550	450	12	-0.9%	-1.3%	-14.8%	
							23*	-0.3%	-0.8%	-15.4%	
	168	152	Not Req.	50	550	450	12	-1.6%	-2.3%	-27.0%	
							23*	-1.0%	-1.7%	-26.0%	
	400	No Limit	No Limit	21	50	550	450	12	-0.3%	-0.5%	-5.2%
								23*	0.4%	0.3%	-3.6%
1250		683	23	50	550	450	12	-0.5%	-0.7%	-7.1%	
							23*	0.2%	0.1%	-5.8%	
1250		435	31	50	550	450	12	-0.6%	-0.8%	-8.8%	
							23*	0.1%	-0.1%	-8.2%	
787		327	40	50	550	450	12	-0.6%	-0.9%	-10.9%	
							23*	-0.1%	-0.4%	-11.1%	
168		152	Not Req.	50	550	450	12	-1.3%	-1.9%	-22.8%	
							23*	-0.7%	-1.3%	-21.4%	

\*From Framework 4 analysis

**Table 34 - Change from FY 2006 to Alternatives - Vessels Fishing in NFMA and SFMA. Proposed action is bold.**

### 5.3.5 Moratorium on Directed Fishing

Table 35 reports the results from the simulation of an end of the directed monkfish fishery relative to FY 2006 conditions. The original FMP called for ending the directed fishery in the fourth year of the rebuilding plan, a provision later replaced by Framework 2 that established the annual adjustment process. Due to the large increase in the monkfish stocks necessary in the final three years of the rebuilding plan, NMFS is considering closing the directed fishery in the SFMA under this interim rule. This would have uniformly negative impacts on vessel return, crew payment, and revenue from monkfish for vessels participating in the monkfish fishery. However, as in the previous analyses of vessels fishing in the SFMA, it was necessary to assume that all vessels would be subject to the minimum incidental trip limit of 50 pounds/DAS up to 150 pounds total. Some vessels would be permitted to retain more than this amount, and the impacts on these vessels would be smaller than those reported in Table 35. Results are provided for vessels fishing only in the NFMA, vessels fishing only in the SFMA, and vessels fishing in

both areas. Situations in which only the NFMA or SFMA directed fishery is closed, or both directed fisheries are closed are also analyzed.

NFMA Alternatives				SFMA Alternatives				Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS			
<i>Vessels Fishing Only in NFMA</i>										
300	0	0	0					-7.0%	-11.9%	-26.8%
400	0	0	0					-4.9%	-8.2%	-18.7%
<i>Vessels Fishing in SFMA Only</i>										
				50	0	0	0	-3.4%	-4.5%	-52.5%
<i>Vessels Fishing in NFMA and SFMA</i>										
<i>- Only NFMA Directed Fishery Closed</i>										
300	0	0	0	50	550	450	12	-1.1%	-1.7%	-19.4%
400	0	0	0	50	550	450	12	-0.7%	-1.0%	-11.2%
<i>- Only SFMA Directed Fishery Closed</i>										
300	No Limit	No Limit	21	50	0	0	0	-2.6%	-2.7%	-9.5%
	1250	886	23	50	0	0	0	-2.6%	-2.7%	-10.3%
	1250	470	31	50	0	0	0	-2.7%	-2.9%	-11.6%
	869	338	40	50	0	0	0	-2.8%	-3.1%	-14.1%
	168	152	No Limit	50	0	0	0	-3.7%	-4.2%	-28.1%
400	No Limit	No Limit	21	50	0	0	0	-2.3%	-2.2%	-3.5%
	1250	886	23	50	0	0	0	-2.4%	-2.4%	-5.8%
	1250	470	31	50	0	0	0	-2.5%	-2.5%	-7.7%
	869	338	40	50	0	0	0	-2.7%	-2.8%	-10.7%
	168	152	No Limit	50	0	0	0	-3.5%	-3.9%	-24.3%
<i>- Both NFMA and SFMA Directed Fisheries Closed</i>										
300	0	0	0	50	0	0	0	-3.2%	-3.5%	-19.3%
400	0	0	0	50	0	0	0	-2.7%	-2.8%	-11.1%

**Table 35 - Change from FY 2006 to No Directed Fishing.**

Two economic issues raised by the fishing industry in response to the proposed closure of the directed fishery in the SFMA are the potential impacts of shifting effort to the NFMA, and the economic impact resulting from the short notice provided to the public of this interim rule. The ability of a vessel owner to move all or a portion of his/her monkfish fishing activities to the NFMA would help mitigate some of the negative economic effects associated with a closure of the directed fishery in the SFMA, but could have negative impacts to vessels fishing in the NFMA resulting from reduced harvest rates and/or market value associated with the increased harvest of monkfish from this area. In terms of the timing of the proposed SFMA closure, it is understood that most vessel owners must purchase new nets, mend existing nets, and purchase necessary other equipment well in advance of the start of the fishing year. Therefore, any sudden change to management measures, particularly one that would result in reduced fishing effort, has an economic effect. However, the economic impacts associated with a sudden change to management measures is difficult to quantify since they are dependent on several factors that affect the individual vessel such as the need for new or replacement gillnet tags, the need for new



nets (depending on the number the vessel normally fishes), and the need to purchase or replace any necessary marine mammal compliant gear.

In summary, the short-term economic impacts associated with closing the directed fishery in the SFMA, including the impacts associated with the short notice of the closure, would be offset by the long-term biological benefits to the resource, which would ultimately result in long-term economic benefits to the fishing industry.

### **5.3.6 DAS Carryover Alternatives**

The alternatives concerning carryover DAS would affect all vessels with monkfish DAS they would like to carry over to the next fishing year. Since the average number of monkfish DAS carried over from FY 2005 to FY 2006 was roughly 8.5, the proposed action represents a decrease in fishing opportunity for some vessels, to the extent that the DAS would have been used in the following fishing year. Alternative 2, the no action alternative, would allow vessels to continue to carry over 10 DAS, thereby providing vessels with more flexibility in scheduling, and address safety concerns associated with going out in bad weather to use all available DAS prior to the end of the fishing year.

### **5.3.7 Permit Category H (NC/VA) Fishery boundary**

Amendment 2 established a new fishery for some vessels that did not qualify for a limited access permit in the initial FMP. Seven vessels qualified for this fishery and six are actively fishing. These vessels have been constrained by area closures to protect sea turtles, so that the area available to them for fishing is approximately 20 miles wide. This, coupled with the limited season when monkfish are available in the area, led the industry to request that the boundary for the fishery be moved northward 20 miles from 38°20'N to 38°40'N. The proposed action, Alternative 1, would increase the fishing opportunities available to the affected vessels. Under Alternative 2, these vessels would have continued to face their current limitations on fishing.

### **5.3.8 Scallop Closed Area Access Program Monkfish Incidental Limit**

Under the no action alternative (Alternative 2), scallop vessels fishing in the Closed Area Access programs have a monkfish incidental limit applicable to vessels fishing with a dredge and not on a scallop DAS, or 50 lbs. per day to a maximum of 150 lbs. tail weight. Under Alternative 1, the proposed action, the incidental limit applicable to those vessels would be the same as applies to scallop vessels fishing on a scallop DAS, or 300 lbs. tail wt. per DAS, except that the incidental limit will be based only on the time that the vessel is in the closed area, and not including steaming time. Alternative 1 will have a slightly positive economic effect compared to the no action alternative, because it will enable scallop vessels to convert discards to landings and realize the revenue from that catch. The magnitude of this effect, however, is not expected to be significant relative to the value of the scallop landings on those trips. The Councils do not expect that Alternative 1 presents any new incentive for scallop vessels to target monkfish under the increased incidental limit, given the relative value of the scallop catch to the difference in allowable monkfish landings under the two alternatives.

## **5.4 Social Impact Assessment for Measures under Consideration**

The need to assess social impacts emanating from federally mandated fishing regulations stems from National Environmental Protection Agency (NEPA) and Sustainable Fisheries Act (SFA)

mandate that the social impacts of management measures be evaluated. NEPA requires the evaluation of social and economic impacts in addition to the consideration of environmental impacts. National Standard 8 of the SFA demands that “Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities” (16 U.S.C.§1851(2)(8)). The analysis that follows provides a context for understanding possible social impacts resulting from the proposed measures in this framework.

Daily routines, safety, occupational opportunities, and community infrastructure are examples of social impacts that can be affected by changes in management measures. Modifications to daily routines can make long-term planning difficult. New gear requirements such as netting and some equipment must be ordered months in advance resulting in changes to daily routines when these modifications cannot be met in a time and cost efficient manner. Further the cost of making such changes may prove to be a burden for some vessel owners. Changes in management measures that limit access to fishing may increase the likelihood of safety risks. Increased risk can result when fishermen spend longer periods at sea in order to minimize steam time to and from fishing grounds, operate with fewer crew, and fish in poor weather conditions.

Occupational opportunities within the fishing industry in general appear to be largely on the decline with more people leaving the industry then entering it. Management measures that further reduce occupational opportunities may have profound social impacts on the future occupational viability of commercial fishing. The increasing challenge to maintain economically viable fishing operations has resulted in an increasing number of fishermen leaving the fishing industry in search of other occupational pursuits. The tight fit between the unique characteristics of commercial fishing and the personality profile of fishermen has meant that many fishermen transitioning out of the industry have not found similar job satisfaction in replacement career pursuits resulting in personal and familial stress (Pollnac and Poggie, 1988 and 2006).

Changes in management measures can affect the size, demographic characteristics, and social structure of communities. More specifically, port infrastructure may be affected by the gradual loss of shore-based services essential to a strong working waterfront. Impacts that decrease occupational opportunities in turn can affect fishing families and community infrastructure.

#### **5.4.1 Methods**

Qualitative and, where available, quantitative methods have been used to assess the relative impact of the proposed management measures outlined in this action. Vessel trip records and dealer weighout data are used to develop baseline projections of FY 2006 revenues based on FY 2005 trips and FY 2005 prices but using FY 2006 regulations. *Revenue figures for this analysis represent artificially constructed values that create a baseline to evaluate change. Therefore, these values should not be considered either calculations of actual revenue or estimates of revenue.* A detailed description of this methodology is discussed earlier in section 5.3.4 Economic Impact of Alternatives (paragraphs 3 – 5).

Potential social impacts emanating from the proposed measures are represented as a percentage change, either increase or decrease, in monkfish revenue from current conditions as per the above description of methods. While some management measures, more than others, tend to engender certain types of social impacts it is not possible to predict with accuracy precise social impacts particularly when there are multiple overlaying management measures such as in this proposed action. Therefore the discussion of social impacts for alternatives will indicate the likely directional impacts of specific measures e.g., positive, negative, or neutral.

An important note is that the following discussion focuses principally on the short-term effect of specific alternatives which, in the case of increased restrictions, may be negative compared to taking no action. On the other hand, where the no-action alternative results in a continuation of the decline in the monkfish resource, or prevents rebuilding to a higher level of sustainable catch over the long term, those short-term impacts may be outweighed by the long-term positive impacts of rebuilding the resource on which the fishery is based. This trade-off is difficult, if not impossible to quantify, however, given that long-term optimum yield, or maximum sustainable yield is unknown. Qualitatively, the stability and higher level of landings that is expected once the stocks are rebuilt will likely be positive for the individuals and communities affected by the monkfish FMP.

#### **5.4.2 Discussion of Social Impacts by Alternative**

Should the management measures proposed in this action be adopted, port level impacts can generally be anticipated for vessels fishing exclusively in either the SFMA or the NFMA or for vessels fishing in both areas. While the extent of impact of management measures is dependent on the relative involvement of communities in monkfishing, social impacts, either positive or negative, can be buffered by diversification of area involvement in monkfishing.

A comparison of port revenue by vessel involvement in management areas (Table 36 and Table 37) shows that port communities with monkfish vessels active in both areas tend to yield higher monkfish revenue than communities with vessels fishing for monkfish exclusively in one area. The shaded areas in both tables highlight ports and vessel area options by port for revenue greater than \$100,000. The majority of such ports (Table 36) have vessels involved in more than a single area option with the highest producing ports involved in all three area options. This is in contrast to ports with vessels engaged in a single area option (Table 37) where total port monkfish revenue tends to be below \$100,000. Because of the potential differential impacts between the NFMA (i.e., negative) and SFMA (i.e., neutral), port level social impacts would be buffered or somewhat neutralized in ports with significant vessel involvement in both areas.

State	Port	Vessel N	Port Revenue for Current Conditions by Area Involvement	Area	Port Monkfish Revenue-Current Conditions
MA	Boston	25	2,005,142	B	4,704,489
		26	2,536,130	N	
		9	163,217	S	
	Gloucester	21	1,283,415	B	2,145,446
		32	862,030	N	
	New Bedford	93	2,026,053	B	2,280,315
		7	34,917	N	
		28	219,345	S	
	NH	Portsmouth	3	248,645	B
9			373,702	N	
NJ	Barnegat Light	4	13,978	B	851,066
		37	837,089	S	
	Cape May	8	45,479	B	82,260
		14	36,781	S	
RI	Newport	6	253,299	B	468,702
		7	215,403	S	
	Point Judith	22	482,586	B	655,385
		12	172,799	S	
		363	11,810,011		11,810,011

**Table 36** - Ports with Vessels Fishing Exclusively in Two or More Area Options - NFMA, SFMA and/or Both Areas

State	Port	Vessel N	Port Monkfish Revenue- Current Conditions	Area	
VA	Newport News	11	30,779	S	
RI	Tiverton	5	184,097		
PA	Philadelphia	3	3,709		
NY	Shinnecock	6	106,468		
	New York	4	69,798		
	Montauk	11	263,379		
NJ	Waretown	5	160,502		
	Point Pleasant	4	62,313		
	Belford	3	34,124		
NC	Wanchese	10	79,529		
MA	Fairhaven	6	134,000		
	Less Than 3 Vessels	49	938,566		
NH	Rye	3	83,584		N
ME	South Bristol	6	333,530		
	Portland	17	1,487,919		
	Port Clyde	7	301,250		
	Cundys Harbor	3	632,591		
MA	Scituate	3	87,642		
	Provincetown	3	13,593		
	Newburyport	3	14,671		
	Less Than 3 Vessels	30	1,751,199		
RI	Wakefield	3	71,114	B	
MA	Plymouth	3	150,120		
MA	Chatham	11	694,253		
CT	New London	5	26,854		
	Less Than 3 Vessels	47	1,766,540		
		261	9,482,125		

**Table 37 - Ports with Vessels Fishing Exclusively in One Area Option -NFMA, SFMA, or Both Areas**

### 5.4.3 TAC Alternatives

#### 5.4.3.1 TAC Alternative 1 (proposed action)

A reduction in fishing effort creates the need to modify fishing practices in an attempt to maintain daily life on community, household, and personal levels. This alternative would set target TACs of 5,000 mt and 3,667 mt for the NFMA and SFMA, respectively. This would substantially reduce the ability of vessels to target monkfish in the NFMA, and also maintain very restrictive measures for the SFMA for the time period this interim action is in effect. In addition, because this action differs substantially from what the Councils proposed in Framework 4 for the SFMA (i.e., 12 DAS versus the 23 DAS proposed by the Councils), and because it

would be finalized close to the start of the fishing year, it will impact the ability of vessel owners to plan their activities for the upcoming fishing year given the short notice of this change to the measures proposed by the Councils.

#### **5.4.3.2 TAC Alternative 2 - No Action**

The current method for calculating target TACs on an annual basis would remain in effect making long term planning difficult. Such methods are likely to perpetuate uncertainty and disruption to daily life and business planning and thus have negative social impacts. In addition, the no action alternative would result in a lower target TAC and resulting trip limits and DAS available for vessels fishing in the NFMA, but would increase the target TAC, and resulting DAS allocation for vessels fishing in the SFMA. Therefore, the no action alternative would result in greater negative social effects on vessels fishing in the NFMA than the proposed action, but would actually have positive social effects on vessels fishing in the SFMA than under the proposed action.

#### **5.4.4 DAS Alternatives**

##### **5.4.4.1 NFMA DAS Alternatives**

The social impacts of reductions in DAS available to a vessel for monkfishing vary, depending on the amount of allocated DAS that vessels use and the availability of other opportunities. The social impacts of DAS reductions tend to be more far-reaching and long-term in nature than other management measures like trip limits. Most impacts result from direct reductions in monkfishing opportunities and revenues for vessels that are most active in the fishery. Reductions in opportunities also relate to reductions in vessels' flexibility and can have direct impacts on fishing activity within a port, thereby impacting the shore side facilities that are dependent on the affected vessels.

DAS restrictions can lead to increased safety risks driven by the need to maintain profitability in an environment of increasingly restrictive management measures. Vessel owners and captains may fish more intensively, carry weight greater than the safety limit for their vessel, and be more likely to fish in poor weather conditions in an effort to cover costs and maintain profitability with fewer fishing opportunities.

While direct control on monkfishing effort in the SFMA is already in place, the management measures proposed will impose the greatest restrictions on vessels fishing in the NFMA where monkfishing effort is currently indirectly controlled through the allocation of multispecies DAS. Given continually more restrictive measures in the multispecies fishery, monkfish is an increasingly important component of the overall revenues of vessels fishing in the NFMA. Any restriction on monkfishing effort, therefore, is likely to have some negative social impact for those fishing exclusively in the NFMA during the rebuilding period.

##### **5.4.4.2 NFMA DAS Alternative 1 (proposed action)**

This alternative requires limited access vessels in the NFMA anticipating that monkfish landings will exceed incidental limits to be required to call in either a monkfish DAS or monkfish/multispecies DAS. While the SFMA has already adopted this measure, this represents

a significant change in the NFMA where monkfish harvesting has been indirectly controlled using multispecies DAS.

The provision that would enable vessels to declare a monkfish DAS by VMS prior to returning to port will provide flexibility in the decision to call in a monkfish DAS, depending on actual catch, rather than anticipated catch. This provision will also promote safety by leaving open the option to return to port regardless of whether a vessel has caught its trip limit. If a vessel is required to call in a monkfish DAS prior to leaving port, rather than having the option to call in via the VMS while at sea, then it may be compelled to continue fishing in unfavorable conditions rather than lose the revenues from that monkfish DAS. Nearly all of the monkfish vessels fishing in the NFMA are already required to have VMS installed under the Multispecies FMP regulations. This alternative will also contribute to reducing regulatory discards when vessels exceed the incidental limit and have the option to call in a monkfish DAS while at sea.

#### **5.4.4.3 NMFA DAS Alternative 2 – no action**

A monkfish limited access vessel fishing on a multispecies DAS will not be required to call in a monkfish DAS. This would allow for the continuation of current harvesting practices therefore social impacts would be unlikely.

#### **5.4.5 NFMA Incidental Limit Alternatives**

##### **5.4.5.1 NFMA Incidental limit Alternative 1 (proposed action)**

Incidental catch limits affect those vessels not on a monkfish DAS. Incidental catch limits set too low can result in discarding of excess fish considered socially unacceptable amongst fishermen. Under this alternative, permit Category E vessels on a multispecies DAS, and limited access vessels fishing on a multispecies DAS, but not a monkfish DAS would be limited to 300 lbs. (tail wt.) per DAS or 25% of the total weight of fish on board, whichever is less. This alternative would affect those vessels currently landing in excess of the proposed 300 lbs. limit. Although this alternative would represent a 100 lbs. reduction in the incidental catch limit social impacts are likely to be relatively neutral for the majority of potentially affected vessels for which the current limit has not been exceeded.

##### **5.4.5.2 NFMA Incidental limit Alternative 2 – no action**

This alternative affects the same vessels as in Alternative 1, with a higher incidental catch limit of 400 lbs. This incidental catch limit has been in place since the adoption of Framework 2 regulations. Social impacts are likely to be neutral should this limit remain in effect.

#### **5.4.6 SFMA Trip Limit/DAS Alternatives**

##### **5.4.6.1 SFMA Trip Limit/DAS Alternatives**

###### **5.4.6.1.1 Under TAC Alternative 1 (proposed action)**

Trip limits specify the amount of fish that can be harvested on a directed monkfishing trip. Changes in trip limits can affect the structure of the fishery. If the trip limit is set very low, the inshore sector of the fleet can sometimes manage to fish economically, while the offshore sector of the fleet cannot cover trip expenses. This can change the structure of financial rewards

generated in the fishery and can ultimately change the short-term and long-term structure of the fishery itself. Somewhat mitigating this effect on offshore vessels is the Offshore SFMA Fishery Program adopted in Amendment 2. This program allows enrolled vessels to fish under a higher trip limit (1,600 lbs. tail wt. /DAS) in exchange for a pro-rated allocation of DAS. Further, trip limits and incidental catch limits set too low can result in discarding of excess fish considered socially unacceptable amongst fishermen.

Table 38 shows that the proposed action would not change the trip limits or DAS for the SFMA, and, therefore, no additional social impacts would be expected relative to the status quo. However, vessels owners have been basing their business decisions for FY 2007 on the proposed trip limits and DAS allocations for the SFMA contained in Framework 4, which is similar to the no action alternative. The sudden change in management measures resulting from this interim rule, coupled with future uncertainty surrounding the monkfish fishery following the July 2007 stock assessment, is disruptive to the ability of vessel owners to appropriately plan for the upcoming fishing season, resulting in negative social impacts.

			Current Conditions	Alternative 1	No Action - 24 SFMA DAS		
<b>SFMA Incidental Limit</b>			50	50	50		
<b>SFMA ACG Trip Limit</b>			550	550	550		
<b>SFMA BDH Trip Limit</b>			450	450	450		
<b>SFMA DAS</b>			12	12	24		
State	Port	N	Option 0	Option 1	%	No Action	%
NJ	Barnegat Light	37	836,601	836,601	0%	1,341,611	60%
NY	Montauk	11	264,606	264,606	0%	366,011	38%
MA	New Bedford	28	226,089	226,089	0%	327,814	45%
RI	Newport	7	216,978	216,978	0%	366,229	69%
RI	Tiverton	5	185,916	185,916	0%	334,662	80%
RI	Point Judith	12	173,285	173,285	0%	244,256	41%
MA	Boston	9	163,668	163,668	0%	264,093	61%
NJ	Waretown	5	160,930	160,930	0%	237,806	48%
MA	Fairhaven	6	135,667	135,667	0%	244,178	80%
NY	Shinnecock	6	106,409	106,409	0%	164,509	55%
NC	Wanchese	10	80,839	80,839	0%	129,825	61%
NY	New York	4	69,987	69,987	0%	105,414	51%
NJ	Point Pleasant	4	62,436	62,436	0%	86,194	38%
NJ	Cape May	14	36,974	36,974	0%	43,632	18%
NJ	Belford	3	34,142	34,142	0%	60,431	77%
VA	Newport News	11	30,897	30,897	0%	32,945	7%
PA	Philadelphia	3	3,768	3,768	0%	5,244	39%
Less Than 3 Vessels		49	941,962	941,962	0%	1,485,510	58%

**Table 38 - Changes to Port Revenues under SFMA Trip Limit and DAS Alternative 1 and No Action**



#### **5.4.6.1.2 Under TAC Alternative 2 – No Action**

DAS allocations would be adjusted annually and would result in FY 2007 DAS allocations in the SFMA of 24 monkfish DAS with FY 2006 trip limits. The no action alternative, which is similar to what the Councils proposed in Framework 4, would result in increase in port revenues ranging from a modest 7 percent increase (Newport News, VA), to a substantial 80 percent increase (Tiverton, RI, and Fairhaven, MA). Although, social impacts appear positive in Table 38, the continued annual adjustments to management measures would make long term planning difficult.

#### **5.4.7 NFMA Trip limits and DAS Alternatives**

##### **5.4.7.1 NFMA trip limits/DAS Alternatives under TAC Alternative 1**

###### **5.4.7.1.1 Under NFMA Incidental Limit Alternative 1 – 300 lbs. (proposed action)**

In this interim action for the NFMA, NMFS is narrowing the range of trip limit/DAS options considered by the Councils to only include the DAS and trips limits that would result from the proposed target TAC that was recommended by the Councils, and the trip limits and DAS calculated for the target TAC that would result from the application of the Framework 2 control rule if no action were to be taken.

The analysis of the NFMA trip limit and DAS alternatives provided by the Councils in Framework 4 provides the basis for the analysis of trip limits and DAS options for this interim rule. However, in this interim rule, NMFS is only proposing the DAS and trip limit option recommended by the Councils. The options considered by the Councils are compared in Table 39 to current conditions of a 400 lbs. incidental trip limit with no restrictions for permit categories and no DAS requirement. A comparison of options between Incidental Trip Limits Alternatives 1 and 2 and current conditions indicates that there are more potentially affected communities under the 300 lbs. incidental trip limit alternative than under the no action alternative.

Under the proposed trip limit/DAS option, and under the proposed incidental trip limit, vessels would have a 300 lbs. incidental catch limit, a 1,250 lbs. trip limit for permit categories AC, and a 470 lbs. trip limit for categories BD, and 31 DAS. Six communities with a projected decrease in revenues of greater than 10% include Boston, MA, Portland, ME, Cundys Harbor, ME, Portsmouth, NH, Scituate, MA, and Gloucester, MA. A comparison between this option and current conditions would result in negative social impacts in the NFMA.

Under the proposed trip limit/DAS option, but under the no action incidental catch alternative, vessels would have a 400 lbs. incidental trip limit, a 1,250 lbs. trip limit for permit categories AC, and a 470 lbs. trip limit for categories BD, and 31 DAS. Six communities with a projected decrease in revenues of greater than 10% include: Portland, ME, Cundys Harbor, ME, Gloucester, MA, Boston, MA, Scituate, MA, and Portsmouth, NH. A comparison between this option and current conditions would result in negative social impacts in the NFMA.

NFMA Incidental Trip Limit			400	300				400					
NFMA AC Trip Limit			No Limit	1250	<b>1250</b>	869	No Limit	168	1250	1250	787	No Limit	168
NFMA BD Trip Limit			No Limit	886	<b>470</b>	338	No Limit	152	683	435	327	No Limit	152
NFMA DAS			Not. Req.	23	<b>31</b>	40	21	Not. Req.	23	31	40	21	Not. Req.
State	Port	N	Current Condition	%	%	%	%	%	%	%	%	%	%
MA	Boston	26	2,536,130	-24%	<b>-22%</b>	-21%	-24%	-50%	-15%	-14%	-14%	-15%	-50%
ME	Portland	17	1,487,919	-16%	<b>-16%</b>	-16%	-16%	-40%	-10%	-10%	-11%	-9%	-40%
MA	Gloucester	32	862,030	-9%	<b>-10%</b>	-15%	-6%	-46%	-9%	-10%	-16%	-3%	-46%
ME	Cundys Harbor	3	632,591	-20%	<b>-20%</b>	-20%	-20%	-55%	-13%	-13%	-14%	-11%	-55%
NH	Portsmouth	9	373,702	-13%	<b>-20%</b>	-25%	-11%	-47%	-12%	-19%	-24%	-7%	-47%
ME	South Bristol	6	333,530	-4%	<b>-3%</b>	-5%	-4%	-26%	-1%	-1%	-3%	-1%	-26%
ME	Port Clyde	7	301,250	-1%	<b>-1%</b>	0%	-1%	-9%	0%	0%	0%	0%	-9%
MA	Scituate	3	87,642	-5%	<b>-16%</b>	-24%	-2%	-47%	-9%	-18%	-24%	-1%	-47%
NH	Rye	3	83,584	0%	<b>0%</b>	0%	-1%	-14%	0%	0%	-1%	0%	-14%
MA	New Bedford	7	34,917	0%	<b>0%</b>	0%	0%	-2%	0%	0%	0%	0%	-2%
MA	Newburyport	3	14,671	0%	<b>0%</b>	0%	0%	0%	0%	0%	0%	0%	0%
MA	Provincetown	3	13,593	0%	<b>-3%</b>	-6%	0%	-9%	0%	-4%	-6%	0%	-9%
	Less Than 3 Vessels	30	1,751,199	-24%	<b>-27%</b>	-29%	-20%	-53%	-20%	-23%	-26%	-14%	-53%

**Table 39 - Changes to Port Revenues under NFMA Trip Limit and DAS Alternatives. Proposed action is bold.**

**5.4.7.2 NFMA trip limits/DAS Alternatives under TAC Alternative 1 - No Action**

The target TAC that would result from the application of the Framework 2 control rule would fall in between the estimated target TACs considered under the no action alternative contained in Framework 4 (Table 3). Under this alternative, trip limits and DAS allocations would be adjusted annually and would result in an allocation of trip limits and DAS within the range of those shown in Table 3, under target TAC alternative 3. The social impacts associated would be similar to those resulting from the proposed action, but magnitude of those impacts would be greater. Furthermore, the annual adjustments to management measures that would continue under the no action alternative would make long term planning difficult.

**5.4.7.3 NFMA and SFMA combined trip limits/DAS Alternatives**

Communities with vessels fishing in both the NFMA and SFMA will be affected by the alternatives selected for both management areas. These vessels have the ability to shift between management areas mitigating both positive and negative social impacts of changes in regulations. The most advantageous alternative combinations are found in Table 41, indicating that the 400 lbs. incidental catch limit alternative would result in social impacts that are less substantial than the 300 lbs. incidental limit alternative (Table 40) for vessels that fish in both management areas.

			Current Conditions					
<b>NFMA Incidental Trip Limit</b>			400	<b>300</b>				
<b>NFMA AC Trip Limit</b>			No Limit	No Limit	1250	<b>1250</b>	869	168
<b>NFMA BD Trip Limit</b>			No Limit	No Limit	886	<b>470</b>	338	152
<b>NFMA DAS</b>			No Limit	21	23	<b>31</b>	40	Not. Req.
<b>SFMA Incidental Trip Limit</b>			50	50	50	<b>50</b>	50	50
<b>SFMA ACG Trip Limit</b>			550	550	550	<b>550</b>	550	550
<b>SFMA BDH Trip Limit</b>			450	450	450	<b>450</b>	450	450
<b>SFMA DAS</b>			12	12	12	<b>12</b>	12	12
State	Port	N	Revenue	%	%	%	%	%
MA	Boston	25	2,058,038	18%	-18%	<b>-17%</b>	-17%	-28%
MA	New Bedford	93	2,043,694	11%	-10%	<b>-10%</b>	-10%	-16%
MA	Gloucester	21	1,287,017	-8%	-8%	<b>-11%</b>	-14%	-27%
MA	Chatham	11	695,140	-8%	-10%	<b>-14%</b>	-19%	-39%
RI	Point Judith	22	486,281	13%	-13%	<b>-11%</b>	-5%	-20%
RI	Newport	6	254,497	16%	-6%	<b>-6%</b>	-10%	-18%
NH	Portsmouth	3	248,877	17%	-18%	<b>-29%</b>	-36%	-52%
MA	Plymouth	3	150,806	13%	-10%	<b>-4%</b>	-5%	-55%
RI	Wakefield	3	71,265	0%	0%	<b>0%</b>	0%	0%
NJ	Cape May	8	45,896	0%	0%	<b>0%</b>	0%	0%
CT	New London	5	27,030	0%	0%	<b>0%</b>	0%	0%
NJ	Barneгат Light	4	14,004	0%	0%	<b>0%</b>	0%	0%
	Less Than 3 Vessels	47	1,770,934	-9%	-13%	<b>-17%</b>	-20%	-34%

**Table 40 - Changes to Port Revenues under Combined SFMA and NFMA Trip Limit and DAS Alternatives (300 lbs.). Proposed action is bold.**

			Current Conditions					
<b>NFMA Incidental Trip Limit</b>			400	400				
<b>NFMA AC Trip Limit</b>			No Limit	No Limit	1250	1250	787	168
<b>NFMA BD Trip Limit</b>			No Limit	No Limit	683	435	327	152
<b>NFMA DAS</b>			No Limit	21	23	31	40	Not Req.
<b>SFMA Incidental Trip Limit</b>			50	50	50	50	50	50
<b>SFMA ACG Trip Limit</b>			550	550	550	550	550	550
<b>SFMA BDH Trip Limit</b>			450	450	450	450	450	450
<b>SFMA DAS</b>			12	12	12	12	12	12
State	Port	N	Revenue	%	%	%	%	%
MA	Boston	25	2,058,038	-7%	-8%	-7%	-8%	-20%
MA	New Bedford	93	2,043,694	-5%	-5%	-5%	-5%	-12%
MA	Gloucester	21	1,287,017	-2%	-4%	-7%	11%	-23%
MA	Chatham	11	695,140	-4%	-8%	12%	19%	-38%
RI	Point Judith	22	486,281	-8%	-8%	-8%	-4%	-18%
RI	Newport	6	254,497	-10%	-1%	-1%	-6%	-13%
NH	Portsmouth	3	248,877	-8%	-15%	24%	32%	-47%
MA	Plymouth	3	150,806	-8%	-5%	-1%	-5%	-53%
RI	Wakefield	3	71,265	0%	0%	0%	0%	-3%
NJ	Cape May	8	45,896	0%	0%	0%	0%	0%
CT	New London	5	27,030	0%	0%	0%	0%	0%
NJ	Barneгат Light	4	14,004	0%	0%	0%	0%	0%
	Less Than 3 Vessels	47	1,770,934	-5%	-11%	15%	18%	-32%

**Table 41 - Changes to Port Revenues under Combined SFMA and NFMA Trip Limit and DAS Alternatives (400 lbs.)**

#### 5.4.8 Moratorium on directed fishing

This alternative would end the directed monkfish fishery and reduce the revenues from monkfish, as discussed in Section 5.3.5. Vessels would only be allowed to operate under applicable incidental catch limits. This measure would disrupt daily life, personal routines, and business practices in ports with vessels active in all three vessel area options. Because this action is only being considered for the SFMA, it would only affect vessels fishing only in the SFMA and vessels fishing in both management areas.

The impact of closing the directed fishery in the SFMA could cause some vessels to move all or a portion of their monkfish fishing operations to the NFMA, further disrupting life and daily routines, but potentially mitigating the social and economic effects associated with the closure. The ability of a vessel owner to move all or a portion of his/her monkfish fishing activities to the

NFMA could also have negative social impacts to vessels fishing in the NFMA resulting from potential gear conflicts and perceived encroachment on historic fishing grounds.

In terms of the timing of the proposed SFMA closure, it is understood that vessel owners must make business decisions well in advance of the start of the fishing year in order to be prepared for the start of the fishing season. Therefore, any sudden change to management measures, particularly one that would result in reduced fishing effort, has a social impact since it disrupts the ability of fishermen to plan ahead and make appropriate business decisions. However, the social impacts associated with a sudden change to management measures is difficult to quantify since they are dependent on several factors that affect the individual vessel such as the need to hire new crew, purchase or repair equipment, and purchase new or sell existing permits.

Finally, closing the directed fishery in the SFMA could also cause some vessel owners to shift into other fisheries, and to a lesser extent, target monkfish under the incidental catch limit, both of which could result in an increase in the incidental catch of monkfish, as well as an increase in the discarding of monkfish over the incidental limit. The discarding of otherwise valuable species is considered to be wasteful and undesirable.

#### **5.4.9 DAS Carryover Alternatives**

##### **5.4.9.1 DAS Carryover Alternative 1**

This alternative would prohibit vessels from using any carryover DAS under this temporary interim rule. This option would reduce fishing opportunities during FY 2007, but would increase the likelihood that the TACs will not be exceeded and the rebuilding goals will be met, reducing the need for future, and potentially more restrictive, adjustments to management measures.

##### **5.4.9.2 DAS Carryover Alternative 2 - proposed, no action**

The current provision of 10 carryover DAS would remain in effect resulting in neutral social impacts in the short term, but may delay achieving the rebuilding goals established in the FMP if the use of carryover DAS results in the target TACs being exceeded, resulting in negative long-term impacts resulting from the implementation of more restrictive management measures in the future.

#### **5.4.10 Category H Fishery boundary Alternatives**

##### **5.4.10.1 Category H Fishery boundary Alternative 1 (proposed action)**

NMFS is considering moving the boundary northward of the fishery that was established in Amendment 2 for vessels that did not qualify for limited access in the original FMP from 38°20'N to 38°40'N, or twenty nautical miles. Five or six of the original seven vessels that qualified are currently active in the fishery. Communities likely to be affected (Table 36 and Table 37) are those in New Jersey with vessels that fish in the zone under consideration and communities with vessels from North Carolina and Virginia that would benefit from the boundary change. If adopted, this alternative would likely result in positive impacts for Category H permit holders but could increase the competition for fishing area for vessels that fish out of adjacent ports to the north.

#### **5.4.10.2 Category H Fishery boundary Alternative 2 – no action**

Under the no action alternative, the Category H fishery boundary would remain at 38°20'N. As a result, the five or six active vessels in the Category H fishery would continue to be constrained to a twenty mile wide area in which they can prosecute their fishery, with increase risk that vessels will be have interactions with sea turtles and have to cease fishing. This alternative could, therefore, have negative social impacts compared to Alternative 1 for vessels fishing out of North Carolina and Virginia ports, but would be status quo for vessels fishing out of ports to the north.

#### **5.4.10.3 Scallop Closed Area Access Program Monkfish Incidental Limit**

Under the no action alternative (Alternative 2), scallop vessels fishing in the Closed Area Access programs have a monkfish incidental limit applicable to vessels fishing with a dredge and not on a scallop DAS, or 50 lbs. per day to a maximum of 150 lbs. tail weight. Under the proposed action, Alternative 1, the incidental limit applicable to those vessels would be the same as applies to scallop vessels fishing on a scallop DAS, or 300 lbs. tail wt. per DAS, except that the incidental limit will be based only on the time that the vessel is in the closed area, and not including steaming time. Alternative 1 will have a slightly positive social effect since this measure would enable scallop vessels to retain and land fish that they would otherwise be required to discard. The positive social effect in this case is related to the act of creating less waste, and consequently reaping some economic benefits from reducing that waste.

### **5.5 Cumulative Effects**

#### **5.5.1 Introduction**

The purpose of this section is to summarize the incremental impact of the proposed action on the environment when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes them. The National Environmental Policy Act (NEPA) requires that cumulative effects of “past, present, and reasonably foreseeable future actions” (40 CFR § 1508.7) be evaluated along with the direct effects and indirect effects of each proposed alternative. Cumulative impacts result from the combined effect of the proposed action’s impacts and the impacts of other past, present, and reasonably foreseeable future actions. These impacts can result from individually minor but collectively significant actions taking place over a period of time. The Council on Environmental Quality (CEQ) directs federal agencies to determine the significance of cumulative effects by comparing likely changes to the environmental baseline. On a more practical note, the CEQ (1997) states that the range of alternatives considered must include the “no-action alternative as a baseline against which to evaluate cumulative effects.” Therefore, the analyses referenced in the following cumulative impacts discussion, compare the likely effects of the proposed action to the effects of the no-action alternative.

CEQ Guidelines state that cumulative effects include the effects of all actions taken, no matter who has taken the actions, but that the analysis should focus on those effects that are truly meaningful in terms of the specific resource, ecosystem and human community being affected. Thus, this section will contain a summary of relevant past, present and reasonably foreseeable future actions to which the proposed alternatives may have a cumulative effect. This analysis has taken into account, to the extent possible, the relationship between historical (both pre- and post-

FMP) and present condition of the monkfish population and fishery, although significantly less is known about the population and the fishery prior to the implementation of the FMP and other management actions affecting the fishery (particularly Multispecies Amendments 5 and 7 and Sea Scallop Amendment 4).

In terms of past actions for fisheries, habitat and community impacts, the temporal scope for this analysis is primarily focused on the 1990s when more data on the monkfish resource became available, although some historical trawl survey data extending to the 1960's is considered. For endangered and other protected species, the context is largely focused on the 1980's and 1990's, when NMFS began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ. In terms of future actions, the analysis examines the period between implementation of these specifications (Spring 2007) and approximately 4 years into the future. This timeframe was chosen because the 2010 fishing year represents the final year of rebuilding under the monkfish FMP, at which time, new management measures may be considered which cannot be predicted at this time.

The geographic scope of the analysis of impacts to fish species and habitat for this action is the range of the fisheries in the Western Atlantic Ocean from the Gulf of Maine to North Carolina, as described in the Affected Environment. The distribution of monkfish is described in the Essential Fish Habitat Section of the Affected Environment (Section 4.3.1). For endangered and protected species, the geographic range is the total range of each species as described in Section 4.1.2. The geographic range for community impacts is defined as those fishing communities bordering the range of the monkfish fishery management areas (Section 4.4), from the U.S.-Canada border to, and including North Carolina.

The cumulative effects analysis focuses on five Valued Environmental Components (VEC's):

1. target species (monkfish)
2. non-target species (incidental catch and bycatch)
3. protected species
4. habitat, and
5. communities.

The cumulative effects determination on these VEC's is based on the following analyses: (1) the discussion in this section of non-fishing actions occurring outside the scope of this FMP; (2) the analysis of direct and indirect impacts contained in the Environmental Consequences section; and (3) the summary of past, present and future actions affecting the monkfish fishery.

NOAA Fisheries staff determined that the 5 VECs (target species, non-target species, protected species, habitat and communities) are appropriate for the purpose of evaluating cumulative effects of the proposed action based on the environmental components that have historically been impacted by fishing, and statutory requirements to complete assessments of these factors under the Magnuson-Stevens Act, Endangered Species Act, Marine Mammal Protection Act, Regulatory Flexibility Act, and several Executive Orders. The VECs are intentionally broad (for example, there is one devoted to protected species, rather than just marine mammals, and one on habitat, rather than Essential Fish Habitat) to allow for flexibility in assessing all potential

environmental factors that are likely to be impacted by the action. While subsistence fishing would ordinarily fall under the “communities” VEC, no subsistence fishing or Indian treaty fishing take place in the area managed under this FMP.

The vessels participating in the monkfish fishery must comply with all federal air quality (engine emissions) and marine pollution regulations, and, therefore, do not significantly affect air or marine water quality. Consequently, the management measures contained in this adjustment would not likely result in any additional impact to air or marine water quality and thus this issue is not discussed further in the analyses below.

### **5.5.2 Past, Present, and Reasonably Foreseeable Future Actions**

The current condition of the monkfish fishery (in the context of the five VECs) is the result of the cumulative effect of past fishing effort on the monkfish resource, implementation of the Monkfish FMP in 1999, and regulations under other FMPs in the region that impact vessels catching monkfish as well as measures adopted under other laws, particularly the Endangered Species Act and the Marine Mammal Protection Act. The two FMP’s that have had the greatest impact on monkfish fishery VECs, other than the Monkfish FMP, are the Sea Scallop and Northeast Multispecies FMP’s because of the spatial overlap of the fisheries, the relatively high level of incidental catch of monkfish in those fisheries, and the fact that more than 90 percent of the monkfish limited access permit holders are also permitted in one or the other of those two fisheries.

Both the Multispecies and Sea Scallop fisheries have undergone a series of major actions since 1994 to reduce fishing effort and rebuild overfished stocks (see Section 1.2.4). These actions reduced overall fishing effort and have imposed other restrictions such as year-round and seasonal closed areas, and gear restrictions that have affected both the directed and incidental catch monkfish fishery. Most recently, Multispecies Amendment 13, and Frameworks 40A, 40B, 41 and 42 have resulted in substantial reductions in multispecies effort, particularly on stocks of concern. Framework 42 also prohibited the use of multispecies B-regular DAS to target monkfish. Further, the NEFMC just initiated the development of Multispecies Amendment 16. This Amendment, scheduled for implementation in 2009, would continue rebuilding programs started under Amendment 13 and could impose additional effort reductions. It is also possible that the NEMFC may consider the development of a new Multispecies Framework action to address several issues that were cut from Framework 42, including those related to special access programs. However, it is unclear when this new action would be initiated and whether it would contribute to the cumulative impacts associated with this environmental assessment.

Atlantic Sea Scallop Amendment 10 and Frameworks 16, 17 and 18 implemented area rotation measures and set scallop DAS levels to achieve mortality targets. In general, these actions have reduced DAS (effort) allocations and dredge contact time with the ocean bottom as a result of increases in yield per recruit. This has contributed to a reduction in overall levels of monkfish incidentally caught in the scallop fishery. The NEFMC has also initiated Amendment 11 to the Scallop FMP, scheduled for implementation within the next two years, which would limit the number of General Category (open access) permit holders, likely resulting in further effort reductions. Improvements in the profitability of the scallop fishery have also reduced directed



effort on monkfish by scallop vessels that possess monkfish limited access permits, since such vessels do not use their monkfish DAS (which would require also using a scallop DAS).

Cumulatively, these actions have likely had a positive effect on the direct and incidental monkfish fisheries, protected species and habitat, principally as a result of the overall reduction in fishing effort (limited entry and DAS controls), closed areas, and the increased selectivity of gears used in those fisheries. Further, as the relative profitability of some rebuilt stocks, such as scallops, has increased, it has resulted in a redirection of effort away from monkfish. Alternately, recent effort reductions in the multispecies fishery have had a negative economic impact on communities, including those that rely on the monkfish fishery due to the overlap between the two fisheries.

Other FMPs that likely have had an impact on the fishery VECs include those managing other demersal species in the region, such as the Skate FMP (implemented 2003), Spiny Dogfish FMP (implemented 2000), and the Summer Flounder, Scup, Black Sea Bass FMP (1996 and amendments). To varying degrees, these management plans, as well as others in the region, have directly or indirectly affected the monkfish fishery by causing effort to shift among fisheries and by changes to the levels of incidental catch of monkfish, but it is not possible to analyze the impact of individual actions on the monkfish fishery.

In addition to FMPs implemented by the Councils, other actions that have directly and cumulatively affected the monkfish fishery VEC's include three federal court decisions (*Hall v. Evans*, *AOC v. Daley*, and *CLF v. Evans*), two marine mammal take reduction plans (Harbor Porpoise and Atlantic Large Whale Take Reduction Plans), and an interim final rule implemented by NMFS under authority of the Endangered Species Act to protect sea turtles. Cumulatively, these actions have limited areas open to fishing on a seasonal basis, specifically to gillnet gear, and have prescribed gear restrictions, including the mandatory use of acoustic deterrent devices in some areas, net limits, and buoy line specifications.

### **Non-Fishing Actions**

There are several ongoing, non-fishing actions that could potentially impact the monkfish fishery. These activities include: chemical (e.g. pesticides and oil pollution), biological (e.g. invasive species and pathogens), and physical (e.g. dredging and disposal, coastal development) disturbances to riverine, inshore and offshore fish habitats; power plant operations (thermal pollution and entrainment of larvae); global warming; and energy projects such as liquid natural gas (LNG) facilities (two onshore LNG projects have been constructed, one in Everett, MA and one in Cove Point, MD and several others have been proposed) and windfarms (only two projects have been formally proposed although several others may be proposed in the near future). The majority of these activities tend to affect inshore areas, and the impacts are often localized. Monkfish are a ubiquitous species that can be found in inshore areas to depths greater than 800 meters. Monkfish are known to migrate seasonally and these migration patterns, although not well understood, are thought to be associated with spawning and food availability. Additionally, monkfish are known to live on various types of substrate from mud to rocky bottom, and can tolerate a wide range of temperatures. Since monkfish are not dependant upon any particular biological, physical, or habitat requirements during any life stage, the impacts to

this species of non-fishing activities such as oil pollution, dredging activities, and coastal development are likely localized, and minimal as a whole.

### **5.5.3 Cumulative Effects on the Monkfish Fishery (target species)**

The primary purpose of the proposed action is to implement precautionary measures for the start of FY 2007 to help end overfishing and achieve the stock-rebuilding goals of the original FMP, while NMFS conducts a thorough review of the status of the monkfish resource. Therefore, this action is expected to have a positive cumulative effect on the monkfish resource. This temporary interim action sets target TACs and associated management measures at a conservative level that is either equivalent to those recommended by the Councils in Framework 4 (NFMA) or equivalent to FY 2006 management measures (SFMA). The cumulative effect of the actions proposed in this temporary interim rule, in conjunction with actions taken or proposed in the Multispecies FMP to reduce fishing effort on species of concern, combined with the successful management of the scallop fishery allowing those vessels to operate profitably without the need to target monkfish on a scallop DAS, is positive for the monkfish resource. The cumulative effect of non-fishing activities cited above is not likely to be substantial, given the life history and spatial distribution of monkfish relative to those activities.

### **5.5.4 Cumulative Effects on Non-target Species**

Since the proposed action reduces effort levels (DAS) from the baseline level established in the FMP, the cumulative effect of the adjustment to the target TACs and associated trip limits and DAS for FY 2007 on non-target species is expected to be consistent with the neutral or positive cumulative effects of the rebuilding program as described in the FMP and subsequent analyses (Framework 2 and Amendment 2). The principal non-target species affected by the directed monkfish fishery are skates and dogfish. Those species should benefit from the reduced levels of effort, compared to the FMP baseline, that is allocated under this framework adjustment, and the cumulative effect of the proposed action is likely positive or neutral. Of note, since the effort level is within the baseline analyzed in the Skate FMP, the proposed adjustment does not trigger a skate baseline review. The cumulative effect of non-fishing activities on non-target species affected by the proposed action, mainly dogfish and skates, would not be significant primarily because the range of these species is widely distributed.

### **5.5.5 Cumulative Effects on Protected Species**

The proposed action maintains or reduces, depending on area, monkfish fishing effort at the level analyzed in Amendment 2 and Framework 2 (40 DAS). Therefore, the proposed action is not expected to have significant cumulative effects on marine mammals and protected species beyond those analyzed and discussed in the noted documents. Those documents concluded that the cumulative effect of the monkfish management program, combined with measures adopted to protect marine mammals and ESA-listed species and effort control programs in other fisheries affecting monkfish vessels could enhance, and at least not undermine the protection of marine mammals and other protected species. In addition, the proposed adjustment to the Category H fishery boundary, in conjunction with the large-mesh gillnet closures off the North Carolina/Virginia coast should have a positive cumulative effect on protected sea turtles. Furthermore, there is no evidence suggesting that non-fishing activities are having a cumulative effect on protected species affected by this proposed action.

### **5.5.6 Cumulative Effects on Habitat**

The cumulative effect of the proposed action on habitat should be viewed in context of the habitat protection measures adopted in Amendment 2 to the Monkfish FMP, as well as actions taken in Sea Scallop and Multispecies FMPs. Effort reductions and Habitat Closed Areas were adopted in Monkfish Amendment 2, Sea Scallops Amendment 10 and Multispecies Amendment 13 to minimize the adverse impact of mobile, bottom-tending fishing gear (bottom trawls and dredges) on benthic EFH. The low level of effort allocation in the SFMA under this temporary interim rule, and the adoption of a monkfish DAS requirement in the NFMA, in conjunction with effort control measures in the multispecies and sea scallop fisheries, is expected to have a neutral or positive cumulative effect on habitat in the Northeast Region.

### **5.5.7 Cumulative Effects on Communities**

The proposed action, which reduces DAS available for targeting monkfish in the NFMA, and maintains relatively low levels of effort in the SFMA will have a short-term negative effect on communities due to the resulting decrease in community, vessel and crew revenues from monkfish. The cumulative effect of the proposed action on fishing communities, in conjunction with other past, present and reasonably foreseeable future actions, including non-fishing activities, will be negative in the short term for those communities dependant on monkfish. Over the long term, however, those communities most dependant on the directed monkfish fishery will realize the greatest cumulative benefit from stock rebuilding.

### **5.5.8 Summary of Cumulative Effects**

There are no significant cumulative impacts of this fishery action on the monkfish resource, non-target species, social/economic resources, EFH, or protected species. The proposed action is to set monkfish target TACs, and trip limits and DAS restrictions for the start of FY 2007 that are precautionary in nature until NMFS has the opportunity to evaluate the status of the monkfish resource through a formal stock assessment, and make a final determination on Framework 4 based upon the best information available. The proposed action has been determined to be “not significant” under the National Environmental Policy Act (NEPA) guidelines, even though the short-term (1 year) negative economic and social impacts could be substantial for some vessels and communities. This action is also not considered a “significant regulatory action” under the criteria established in Executive Order 12866 (See Section 6.3, *Regulatory Impact Review and Initial Regulatory Flexibility Analysis* for more details on the economic impacts of the proposed action).

## **6.0 Consistency with Applicable Law**

### **6.1 Magnuson-Stevens Act (MSA)**

#### **6.1.1 National Standards**

Section 301 of the Magnuson-Stevens Act requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The following section summarizes, in the context of the National Standards, the analyses and discussion of the proposed action that appear in various sections of this framework adjustment document.

*(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.*

The proposed action temporarily modifies the stock-rebuilding program established by the original FMP and modified by Framework Adjustment 2. The action does not change the biological reference points and status determination criteria, but recognizes the need to implement precautionary measures until an updated stock assessment can be performed in July 2007. As noted in Section 4.1, the most recent stock assessment concluded that the estimates of fishing are not sufficiently reliable to determine whether overfishing is occurring.

*(2) Conservation and management measures shall be based upon the best scientific information available.*

The interim rule is based upon the information and management measures contained in Framework 4, and its purpose is to implement measures to help end overfishing and rebuild the monkfish resource while NMFS has the opportunity to conduct a thorough review of the status of the monkfish resource using the best and most recent information available. Several sources of data were used in the development of Framework 4 and this interim rule, including the analysis of impacts. These data sources include, but are not limited to, landings data from vessel trip reports and dealer weighout reports, catch data collected in the NOAA Fisheries Observer Program, effort data collected in the DAS call-in and, where applicable, the electronic vessel monitoring system programs, fisheries independent data collected in the NOAA Fisheries bottom trawl surveys, and cooperative research projects. NMFS has determined that these are the best available scientific data, and that the analyses in this document are compliant with the Data Quality Act (see Section 0).

*(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.*

The FMP established a two-area management program for monkfish, covering the exploitable range of the species. SARC 34 discussed the basis for assessing monkfish as a single stock, versus two stocks, and concluded that information was insufficient to make a determination on a biological basis. The SARC noted that the choice of number of management units is independent of the number of assessment units, and that the use of two management units may be required because of the characteristically different fisheries that occur in the two areas, in terms of gear, catch composition, seasonality and other parameters. In Amendment 2, the Councils considered a single-stock approach, but rejected it for further analysis and consideration prior to the development of the DSEIS.

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

The proposed action does not discriminate between residents of different states. While the FMP measures developed to achieve the conservation goals of the FMP may have a differential impact on sectors of the industry, that differential impact is not the purpose. The two-area management

program is based on differences in the fisheries between the two areas, and not based on allocation of fishing privileges differently among sectors of the industry. In fact, all limited access permit holders, with the exception of Category H permits, may fish in either management area, subject to the rules that apply in each. In Amendment 2, the Councils qualified a group of vessels for a limited access permit, that had not qualified under the original FMP, conditional on those vessels being restricted to fishing only in their historical area at the southernmost range of the fishery

*(5) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.*

While many of the measures used in the management of the monkfish fishery reduce efficiency of vessels as a way to control catch and achieve optimum yield while minimizing the impact of restrictions on communities, reducing bycatch and reducing the interaction of the fishery with protected species and habitat. In Framework 4, the Councils considered public comment on a range of DAS and trip limits with equivalent expected landings, in order to maximize the efficiency of the fishery within the requirements of the rebuilding plan and other applicable laws. NMFS is proposing the trip limit and DAS restrictions recommended by the Councils for the NFMA in this action. Another measures contained in this action that improves the efficiency of the fishery within the context of the rebuilding requirements is the adjustment to the monkfish incidental catch limit on scallop vessels fishing in the closed area access programs. Measures that minimize bycatch promote efficiency because of the reduction in the foregone yield represented by discards. Overall, while the FMP generally, and the proposed action in particular, may have differential impacts among different fishery groups, economic allocation is not one of the goals and objectives.

*(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.*

As noted in discussion of National Standards 3 and 4, the two-area management approach, is intended to take into account the differences in fisheries between the two areas. Other measures in the FMP, such as the permit categories and gear- and area-based incidental catch limits are also based on the wide differences among different fisheries that catch monkfish as a target or incidental catch species. The proposed action further recognizes these differences, particularly in the adjustments to the incidental catch limits, and the different DAS and trip limits applicable in each area.

*(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.*

This temporary interim rule contains several measures that minimize costs to vessels, either directly or indirectly, particularly measures that reduce discards. This FMP does not duplicate measures or regulations implemented under other FMPs, but coordinates with them. For example, this FMP applies the multispecies minimum mesh size regulations to trawl vessels that have multispecies limited access permits and who are fishing on a monkfish DAS.

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

The measures proposed in this temporary interim rule are not likely to result in significant adverse impacts on affected fishing communities and, in fact, many will have a positive, but not significant impact compared to taking no action, especially over the long term as stocks are rebuilt. Among the measures expected to have a positive impact on communities are measures that will minimize bycatch, such as the increased incidental catch limit on scallop vessels in the closed area access program. The impact of the proposed action on fishing communities is analyzed and discussed in Section 5.4.

(9) *Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.*

This action proposes one measure specifically intended to minimize bycatch due to regulatory discards. This temporary interim rule will adjust incidental catch limits for monkfish in the sea scallop closed area access program to minimize the regulatory discarding.

(10) *Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.*

This temporary interim rule does not contain any new measures that promote safety, but also does not contain any measures that would encourage unsafe fishing practices.

### **6.1.2 Required Provisions**

Section 303 of the MSFCMA contains fourteen additional required provisions for FMPs, which are discussed below. Any FMP prepared by any Council, or by the Secretary, with respect to any fishery, shall:

(1) *contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are-- (A) necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery; (B) described in this subsection or subsection (b), or both; and (C) consistent with the National Standards, the other provisions of this Act, regulations implementing recommendations by international organizations in which the United States participates (including but not limited to closed areas, quotas, and size limits), and any other applicable law;*

This interim rule temporarily modifies provisions of the FMP to help achieve the 10-year rebuilding goals. NMFS considers the measures in this action to be necessary and appropriate to rebuild the stocks, and recognize that the status with respect to overfishing is unknown. As discussed above in Section 6.1.1, NMFS also deems this action to be consistent with the national standards, and as discussed below, other required provisions of the MSA and other applicable laws.

*(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interest in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;*

The fishery and its components, including biological, social and economic aspects, are described in the Affected Environment section of the EIS for the FMP, as well as in subsequent environmental documents (Amendment 2, Framework 2) and updated in the annual SAFE Reports. There is no foreign fishing, and there are no known Indian treaty fishing rights.

*(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;*

Both monkfish stocks are in the final three years of a 10-year rebuilding program implemented by the original FMP and modified by Framework 2. The status of the stocks, relative to the biomass targets is shown in Figure 3 and Figure 4. Both stocks are overfished, and are less than 50 percent of their respective biomass targets. Prior stock assessments have been unable to specify maximum sustainable yield, primarily due to a lack of historical catch data. An updated monkfish stock assessment is scheduled for July 2007, and will be used to determine the current and probable future condition of the stock, and if possible, the maximum sustainable yield and optimum yield from this fishery.

*(4) assess and specify-- (A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3); (B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing; and (C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United States;*

The monkfish fishery is in a rebuilding program that places annual limits on the amount of fish that can be harvested, that is, optimum yield. Even though the fishery is managed under a limited access program, there is sufficient harvesting capacity to take optimum yield, and, in fact, there is sufficient capacity to take additional fish, as evident from the amount of unused DAS allocated. As such, there is no amount of optimum yield available for foreign fishing. Sufficient domestic processing capacity also exists to utilize the monkfish harvested by United States vessels.

*(5) specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, and charter fishing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, number of hauls, and the estimated processing capacity of, and the actual processing capacity utilized by, United States fish processors;*

Section 4.4 of this document, Human Environment, contains a description of the fishery, including affected communities. The Councils' Monkfish Monitoring Committee compiles and publishes this information annually as part of the Stock Assessment and Fishery Evaluation Report. There is no significant recreational or charter fishery for monkfish.

*(6) consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery; except that the adjustment shall not adversely affect conservation efforts in other fisheries or discriminate among participants in the affected fishery;*

The framework adjustment mechanism established in the FMP provides the Council with the ability to change regulations to address issues such as vessel safety within the context of the fishery management program on an annual, or as needed basis.

*(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;*

Section 4.3 contains the description of monkfish essential fish habitat, and section 5.2 contains the analysis of impacts of the proposed action and alternatives on essential fish habitat. As stated in section 5.2, the measures contained in this temporary action will have no effect to EFH.

*(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;*

The Council prepares annually a Stock Assessment and Fishery Evaluation (SAFE) Report which is used to monitor the fishery and the progress of the FMP. Section 4.0 of this document contains the information and data for the 2005 fishing year that is usually provided in the SAFE Report. The same information is also provided in section 4.0 of the EA/RIR/IRFA prepared for Framework 4.

*(9) include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on-- (A) participants in the fisheries and fishing communities affected by the plan or amendment; and (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants;*

The impacts of the proposed action and alternatives, including cumulative impacts, impacts on the physical and human environments are discussed in Section 5.0 of this document.

*(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the*



*relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;*

Framework 2 implemented revisions to the threshold biomass reference point that better align the FMP with NMFS' national standards guidelines. The proposed action does not modify the management reference points, nor does it change the annual monitoring requirement contained in the FMP. Since both monkfish stocks were overfished at the time the FMP was implemented in 1999, the proposed action is intended to help rebuild the monkfish resource in accordance with the rebuilding goals established in the FMP. The program includes objective and measurable criteria for determining annually the status of the stocks based on the R/V Albatross fall survey. However, the upcoming retirement of the R/V Albatross IV, and its replacement by the R/V Bigelow, which is a different platform and will be using a different net to conduct the surveys, may require the Councils to revise the status determination criteria and biological reference points prior to 2009, unless the calibration of the new survey data with the R/V Albatross time series is successful. At this time, only two years of overlapping surveys by the two vessels is scheduled to facilitate calibration of the survey results, and, therefore, the reliability of any conversion factor is unknown. One of the tasks to be performed during the July 2007 monkfish stock assessment will be to include a determination of stock status relative to the existing biological reference points (BRPs), a review of the existing BRPs and potential revision or redefinition of the BRPs along with a stock status determination, and review and potential revision of existing control rules for rebuilding the stock relative to the recommended BRPs.

*(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority-- (A) minimize bycatch; and (B) minimize the mortality of bycatch which cannot be avoided;*

NMFS currently has in place reporting requirements for all vessels participating in the Federal monkfish fishery, including requirements to report all bycatch on the Vessel Trip Reports (VTR), and maintains, to the extent the budget allows, a fishery observer program on board vessels. Additionally, VMS is mandatory on the majority of limited access monkfish vessels through the requirements of the Atlantic Sea Scallop and Northeast Multispecies FMPs. Since VMS allows the tracking of fishing locations, coordination of this information with observer coverage may allow for more accurate bycatch assessment and projection. Also, the emerging Study Fleet Program can provide another source of bycatch information for the different gear types and areas. The Study Fleet Program is designed to enhance fishery-dependent data necessary for management decisions through the development of electronic reporting technology.

On March 6, 2003, NMFS unveiled a national bycatch strategy aimed at further reducing bycatch through fishing gear improvements, standardized reporting, and education and outreach. One objective of the national bycatch strategy is to develop a national approach that standardizes bycatch reporting. This program will also assess regional progress toward meeting national bycatch objectives and strategies. As part of this national bycatch strategy, each Regional Office of NMFS was tasked with producing regional implementation plans and timelines to implement the national bycatch goal. The Northeast Regional Office (NERO) of NMFS unveiled its regional bycatch plan entitled "Current Bycatch Priorities and Implementation Plan" on

November 28, 2003. As part of this plan, NERO in conjunction with the New England and Mid-Atlantic Fishery Management Councils, the Atlantic States Marine Fisheries Commission, and the Northeast and Mid-Atlantic Sea Grant programs, sponsored the Northeast Regional Bycatch Workshop on June 29 – July 1, 2004. The proceedings from this workshop are available from NERO, and online at <http://www.nero.noaa.gov/nero/hotnews/index.html>.

The Councils are near to submitting an Omnibus Standard Bycatch Reporting Methodology Amendment to all the FMPs. This amendment will, among other things, set statistical standards for bycatch data, and will require regular reporting of bycatch in all managed fisheries.

For the reasons noted above, and given the fact that NMFS is approaching the bycatch issue on a national level versus on a fishery-by-fishery basis, the Councils determined that is not appropriate or practicable to implement a significantly new or expanded reporting methodology focused just on the monkfish fishery through amendments to the FMP. Therefore, no additional specific bycatch monitoring alternatives are being recommended in this action. However, the one measure proposed in this action that would minimize bycatch and/or bycatch mortality is discussed in the previous section under National Standard 9.

*(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;*

Monkfish catch in recreational fisheries is not significant enough to be recorded in the recreational catch data.

*(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;*

Monkfish catch in recreational fisheries is not significant enough to be recorded in the recreational catch and vessel data. Commercial fishery sectors are described in the Affected Environment section of the EIS accompanying the original FMP and updated in the Affected Environment Section of this Environmental Assessment (Section 4.0).

*(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery.*

As noted under the discussion of National Standard 4 in the previous section, while conservation measures may have a differential impact on different sectors of the industry, that differential impact is not the purpose of the regulations, and is done in a manner that is intended to achieve the conservation and rebuilding goals of the FMP. The two-area management program is based on differences in the fisheries between the two areas, and not to allocate fishing privileges differently among sectors of the industry.

### **6.1.3 EFH Assessment**

According to the EFH Final Rule, “federal agencies are not required to provide NMFS with assessments regarding actions that they have determined would not adversely affect EFH.” The action proposed under this framework will not have an adverse effect on EFH of federally managed species, and, therefore, no EFH Assessment is required or provided.

## **6.2 National Environmental Policy Act (NEPA)**

This section evaluates the proposed action in the context of NEPA, for determining the significance of federal actions, in this case the setting of annual monkfish fishery specifications.

### **6.2.1 Finding of No Significant Impact (FONSI Statement)**

NMFS has provided guidance for the determination of significance under NEPA in Section 6.01(b) of NOAA Administrative Order NAO 216-6, May 20, 1999, as well as in NMFS Instruction 3-124-1, July 22, 2005. NOAA Administrative Order 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity”. The analysis of significance of this action is, therefore, based on both the NAO 216-6 criteria and CEQ’s context and intensity criteria. Each criterion listed in the sixteen questions below is relevant in making a finding of no significant impact, and have been considered individually, as well as in combination with the others. The sixteen criteria to be considered are addressed below:

- 1. Can the proposed action be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action?*

Notwithstanding the technical issues with evaluating the efficacy of any monkfish management program (Section 5.1), particularly that the recommended target TACs cannot be analyzed to determine whether it will, in fact result in the needed rebuilding, the proposed action for the NFMA is based on the PDT's best estimate of a target catch that could facilitate stock rebuilding and maintain a limited directed fishery, while the TAC recommended for the SFMA is equivalent to the restrictive FY 2006 measures. Both of these target TACs are considered to be precautionary in light of uncertainty surrounding the status of the monkfish resource with respect to the rebuilding goals established in the FMP. As such, the Councils do not expect that the actions will jeopardize the sustainability of the target species, monkfish.

- 2. Can the proposed action be reasonably expected to jeopardize the sustainability of any non-target species?*

As noted in Section 5.1.1, the proposed action is not expected to jeopardize the sustainability of any non-target species. The effort levels and trip limits set by this action are within the levels analyzed in the FMP, Framework 2, and Amendment 2. Although information about bycatch is limited and not conclusive with respect to fishery-wide impacts, the impact of the monkfish fishery on non-target species is not significant, primarily as a result of the large-mesh gear requirements and low level of effort allocated.

3. *Can the proposed action be reasonably expected to allow substantial damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Fishery Conservation and Management Act and identified in FMPs?*

Impacts of the proposed action on ocean and coastal habitats and/or EFH were assessed in Section 5.2. The analysis concluded that this action is not expected to allow substantial damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Fishery Conservation and Management Act and identified in the FMP and updated in Amendment 2.

4. *Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?*

The proposed action is not expected to have substantial adverse impacts on public health or safety. The interim rule would set effort allocations within the levels established in the FMP, and there has been no indication that these levels affect public health or safety.

5. *Can the proposed action be reasonably expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?*

The activities to be conducted under the proposed action are within the scope of the FMP and do not change the basis for the determinations made in previous consultations, as noted in Section 5.1.2. Potential benefits may accrue from reduced monkfish effort allocations in the northern area, as well as enhanced monitoring of monkfish fishing effort. Effort monitoring has historically improved the understanding of fishery interactions with protected species. In addition, the proposal to expand the area of the Category H fishery will provide opportunity for better dispersion of monkfish effort away from areas of higher concentrations of sea turtles that may interact with the fishery.

6. *Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships)?*

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. While the role of monkfish within the ecosystem is not well understood, the rebuilding of this predator and opportunistic feeder to historical and sustainable levels is likely to promote biodiversity and ecosystem function over the long term.

7. *Are significant social or economic impacts interrelated with significant natural or physical environmental effects?*

There are no significant social or economic impacts, nor are there any significant natural or physical environmental effects expected to result from the proposed action (Section 5.0, Environmental Consequences). Although some vessels and communities may experience a substantial reduction in revenues from monkfish fishing over the short term, the limited duration of this restriction (i.e., temporary rule) reduces the significance of the proposed action in the context of NEPA. Furthermore, the long-term benefits of rebuilding the monkfish resource will be proportionally more positive for those dependant vessels and communities.

8. *Are the effects on the quality of human environment likely to be highly controversial?*

The effects of the adjustments to the FMP presented in this document on the human environment are not expected to be highly controversial, since they are based on the best and most recent scientific information available. The NMFS is concerned that the rebuilding program is behind schedule, and recognize that failure to address this situation will result in more severe restrictions in the future, or reductions in catch as the stock continues to decline.

9. *Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?*

Other than the Stellwagen Bank National Marine Sanctuary (SBNMS), the proposed action does not affect areas of historic or cultural resources, park land, farmland, wetlands wild and scenic rivers or ecologically critical areas that are not already under protection (essential fish habitat areas and marine mammal protection zones). The effect on SBNMS is not likely to be substantial since the area is not a major monkfish fishing ground, and since the proposed action calls for a reduction in overall monkfish effort. Fishing vessels intentionally avoid shipwrecks, such as the SS "Portland" which is located within the SBNMS and is listed on the National Register of Historic Places (see question 12).

10. *Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?*

The analysis of the effects on the human environment of the proposed action is consistent with the analyses done for prior actions in the monkfish fishery, as well as a broad range of fishery management actions taken by the Councils. While these analyses have some inherent uncertainty because they involve predicting future impacts that depend on a wide range of variables, such as the response of the target species to the management measures and the short-term range of alternative fisheries for affected vessels. Thus, although the risks inherent in the analyses of the effects of the proposed action on the human environment are due to uncertainty, those risks are not unique or unknown.

11. *Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?*

The proposed action is related to other recent management actions beginning with the implementation of the Monkfish FMP in 1999 which put in place most of the management measures that are currently in effect. While the FMP and the associated monkfish rebuilding program resulted in some significant impacts to the human environment, the framework actions and Amendment 2 which followed and which refined the original FMP measures were found to not result in significant impacts. Thus, while the proposed action is related to a recent past action that was found to have significant impacts (the rebuilding plan under the FMP), as discussed and analyzed in the cumulative effects assessment (CEA), this action when combined with other past, present and RFFAs would not result in significant cumulative impacts (see the CEA in Section 5.4).

*12. Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historic resources?*

The proposed action is not likely to directly or indirectly affect objects listed in the National Register of Historic Places or cause significant impact to scientific, cultural or historical resources due to the spatial remoteness of the regulated activity relative to listed sites. The only object in the management area listed on the National Register of Historic Places is the wreck of the steamship “Portland”, within the Stellwagen Bank National Marine Sanctuary. The current regulations allow fishing within the Sanctuary, however, vessels typically avoid fishing near shipwrecks or bottom obstructions in order to avoid tangling and losing expensive fishing gear. Therefore, this action would not result in any adverse affects to the wreck of the “Portland”.

*13. Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?*

Since the proposed action is a reduction in monkfish fishing effort in the northern area, and continuation of effort controls within the range of recent years in the southern area, there is no basis to expect that it will result in the introduction or spread of non-indigenous species. In 2002, an invasive colonial sea squirt (*Didemnum sp*) was observed on Georges Bank. The tunicate occurs on pebble gravel habitat, and does not occur on moving sand. NMFS has surveyed the area and is monitoring the growth. At this time, there is no evidence that fishing spreads this species more than it would spread naturally. Furthermore, the proposed action is not expected to spread the species more than regular fishing activity would, however, the role of fishing gear in the spread of invasive tunicates should be evaluated and monitored.

*14. Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?*

No, the proposed action is not likely to establish a precedent for future action with significant effects, and it does not represent a decision in principle about future consideration. This temporary action is being taken under interim rule authority established in section 305(c) of the Magnuson-Stevens Act to help end overfishing and rebuild the monkfish resource while NMFS conducts a stock assessment for the fishery and makes a final determination on Framework 4. Thus, the near-term management of the monkfish fishery is contingent upon the results of the upcoming monkfish stock assessment in July 2007. The future management regime for the monkfish fishery, once rebuilt, has not been established, and will depend on the advancements made in the scientific understanding of the species and its population dynamics.

*15. Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?*

No, the proposed action is not reasonably expected to threaten a violation of Federal, State or local laws or requirements imposed for the protection of the environment. This action does not propose any changes that would provide incentives for environmental laws to be broken.

16. *Can the proposed action be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?*

Cumulative effects on target and non-target species related to the proposed action are discussed in Section 5.4 of this document. Based on that discussion, cumulative effects are not expected to be significant, and there is no change from the original analysis of cumulative impacts as assessed in the FMP and in the EIS for Amendment 2.

**FONSI Statement**

In view of the analysis presented in this document, the EA/RIR/RFA for an Interim Rule to Temporarily Amend the Monkfish FMP, as well as in the EIS for the Monkfish Fishery Management Plan (including the Supplemental EIS for Amendment 2), the proposed action will not have a significant effect on the human environment, with specific reference to the criteria contained in Section 6.02 of NOAA Administrative Order NAO 216-6, Environmental Review events for Implementing the National Environmental Policy Act, May 20, 1999. The impacts and alternatives contained in this document were analyzed with regard to both context and intensity, and are deemed not to be significant. Accordingly, the preparation of a Supplemental Environmental Impact Statement for the proposed action is not necessary.

**Assistant Administrator for Fisheries, NOAA**

**Date**

**6.3 Regulatory Impact Review and Initial Regulatory Flexibility Analysis (EO 12866 and IRFA)**

**6.3.1 Determination of significance under E.O. 12866**

National Marine Fisheries Service guidelines provide criteria to be used to evaluate whether a proposed action is significant. A “significant regulatory action” means any regulatory action that is likely to result in a rule that may:

*1. Have an annual effect on the economy of \$100 million or more, or adversely effect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities.*

This action will have neither an annual effect on the economy of \$100 million, nor adversely effect in a material way the economy, a sector of the economy, productivity, competition, the environment, public health or safety, or State, local, tribal governments or communities. During fishing years 1998 through 2003, gross monkfish revenues averaged approximately \$42.9 million per fishing year. Monkfish revenues were \$32.3 million in fishing year 2004, increasing to \$43.1 million in fishing year 2005. Assuming the entire FY2006 TAC was taken, the total value of monkfish landings would be \$25.6 million at the 2005 average price. The value of the proposed FY2007 TAC would be \$22.7 million at the same price. Thus, there would be an impact on the National economy of \$2.9 million in forgone revenues from monkfish landings relative to fishing year 2006.

*2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency.*

The proposed action does not create an inconsistency or otherwise interfere with an action taken or planned by another agency. The activity that would be allowed under this action involves commercial fishing for monkfish in Federal waters of the EEZ, for which the National Marine Fisheries Service is the sole agency responsible for regulation. Therefore, there is no interference with actions taken by another agency. Furthermore, this action would create no inconsistencies in the management and regulation of commercial fisheries in the Northeast.

*3. Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof.*

The proposed action includes measures that would establish target monkfish TACs for FY 2007, adjust the trip limits and the portion of the total monkfish DAS allocation that may be used in the Northern Fishery Management Area (NFMA) and Southern Fishery Management Area (SFMA), and reduce the incidental catch limits in the NFMA. This action is unrelated to any entitlements, grants, user fees, or loan programs, and, therefore, cannot be considered significant under the third criterion specified in E.O. 12866.

*4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.*

The proposed action is being taken pursuant to the mandates of the Sustainable Fisheries Act to end overfishing, rebuild the stock to MSY in 10 years, and achieve optimum yield from the fishery using the best scientific information available. Therefore, the proposed action would not be considered significant under the fourth criterion specified in E.O. 12866.

Because none of these criteria apply, the National Marine Fisheries Service has determined that the proposed action in the monkfish fishery to establish target TACs, adjust the trip limits and portion of the total monkfish DAS allocation that may be used in the NFMA and SMFA, and reduce the NFMA monkfish incidental catch limit, is not significant for the purpose of E.O. 12866.

### **6.3.2 Initial Regulatory Flexibility Analysis (IRFA)**

The following sections contain analyses of the effect of the proposed action on small entities in accordance with Section 603(b) of the Regulatory Flexibility Act.

#### **6.3.2.1 Reasons for Considering the Action**

Because the rebuilding of monkfish stocks is behind schedule, it is necessary to revise the management program to ensure that the goals of the 10-year rebuilding program may be reasonably expected to be met. The upcoming retirement of the survey vessel RV Albatross and its replacement by the RV Bigelow will complicate the assessment of the monkfish stock condition, necessitating a change in the way the TAC is determined. Further, there are concerns that reductions in fishing opportunities for multispecies permit holders may lead to more directed fishing on monkfish. As a result, it may be necessary to more closely regulate the monkfish fishery in the NFMA to ensure that the rebuilding goals are met. In addition to addressing the



rebuilding program, the proposed action will also address the socio-economic problem created by the current management system in the SFMA, where vessels have been subject to wide annual fluctuation in the TAC and associated trip limits and DAS allocations. This situation has created difficulty in establishing business plans and fishing strategies.

**6.3.2.2 Objectives and legal basis for the action**

As noted earlier (see Section 2.2), the objective of this action is to implement precautionary measures to help end overfishing and rebuild the monkfish resource through adjustments to the monkfish target TACs, the trip limits and monkfish DAS allocations for FY 2007, while NMFS has the opportunity to conduct a thorough review of the monkfish resource using the best and most recent scientific information available. Thus, the proposed action is consistent with the goals of the FMP and its implementing regulations.

**6.3.2.3 Description and number of small entities to which the rule applies**

All of the entities (fishing vessels) affected by this action are considered small entities under the SBA size standards for small fishing businesses (\$4.0 million in gross sales). As of October 13, 2006, there are approximately 731 limited access monkfish permit holders and approximately 2,121 vessels holding an open access Category E permit. This action would affect limited access monkfish vessels while fishing for monkfish in the SFMA, and all vessels fishing for monkfish in the NFMA.

Based on activity reports for the 2005 fishing year (the most recent fishing year for which complete information is available) there were 627 limited access permit holders participating in the monkfish fishery. Of these, 150 fished for monkfish exclusively in the NFMA and 226 fished for monkfish in only the SFMA. The remaining 251 vessels fished for monkfish in both management areas. During the same time period, 570 incidental permit holders reported landing monkfish. Of these, 163 landed monkfish solely from the NFMA, 344 landed monkfish solely from the SFMA, and 63 landed monkfish from both areas. Table 42 reports the number of vessels fishing in each area.

Permit Category	Only NFMA Trips	Only SFMA Trips	NFMA and SFMA Trips
A	1	9	2
B	0	29	3
C	49	98	149
D	100	85	97
E	163	344	63
H	0	5	0

**Table 42 - Number of vessels fishing in NFMA and SFMA by permit category.**

The proposed measures would affect at least the 627 (total of category E row) vessels that fished for monkfish in the NFMA and SFMA, as well as the 226 incidental permit holders landing monkfish from the NFMA (either only, or both areas). However, the measures would be likely to have greatest effect on the 163 limited access vessels that fished for monkfish exclusively in the NFMA.

#### **6.3.2.4 Reporting, recordkeeping and other compliance requirements**

This action does not introduce any new reporting, recordkeeping, or other compliance requirements.

#### **6.3.2.5 Duplication, overlap or conflict with other Federal rules**

The proposed rule does not duplicate, overlap or conflict with other Federal rules.

#### **6.3.2.6 Economic impacts on small entities resulting from the proposed action**

The proposed management changes encompass a variety of measures that would impact vessels participating in the monkfish fishery. The following sections provide a discussion of the impacts for each alternative. Where possible, a quantitative assessment of the impacts is provided. If a quantitative assessment is not possible, an attempt is made to identify the types and number of vessel that may be reasonably expected to be affected.

##### **6.3.2.6.1 TAC Alternatives**

Under the proposed action, the combined target TAC for both monkfish management areas would be decreased by approximately 23 percent compared to fishing year 2006. While the TAC for the NFMA would be decreased by approximately 34 percent, the SFMA TAC would be unchanged from its FY 2006 level. In the absence of further action, these proposed TACs would remain in place until the end of the rebuilding program in FY 2009, thereby eliminating the need for the annual adjustment process created in Framework 2. As previously discussed, three types of vessels may be affected by the proposed measures, and thus the change in the TAC: vessels fishing solely in the NFMA, vessels fishing solely in the SFMA, and vessels fishing in both areas. Impacts on participating vessels would differ depending on the management area in which they fish. However, in general the choice of TAC Alternative would affect any vessel fishing in either area to the extent that they have to change their fishing behavior due to the imposition of DAS requirements or changes in current trip limits. The analyses contained in the following sections provides a synthesis of the impacts for each combination of trip limits and DAS alternatives for the aforementioned three types of vessels that may be affected by the proposed measures.

##### **6.3.2.6.2 NFMA DAS Alternatives**

In FY 2005, there were 233 limited access monkfish vessels also holding limited access multispecies permits that landed more than the 400 pound incidental trip limit for monkfish while fishing in the NFMA DAS. There were 249 such vessels landing more than the proposed 300 pound incidental trip limit. Under the proposed action, these vessels would be required to call in a monkfish DAS if they wish to land more than the incidental trip limit. However, this is essentially an administrative burden, as it does not necessarily entail a change in fishing practices.

##### **6.3.2.6.3 NFMA Incidental Limit Alternatives**

The proposed change in the NFMA incidental catch limit would impact vessels fishing in the NFMA and landing more than the proposed limit. Under the proposed NFMA DAS alternative, these vessels will still have some number of DAS that can be used to fish at more than the incidental limit and will only be constrained to the extent that they have to reduce their monkfish landings on days fished over the monkfish DAS limit. In FY 2005, there were 250 limited access

monkfish vessels fishing in the NFMA and landing more than the current 400 pound incidental trip limit, and 277 landing more than the proposed 300 pound incidental trip limit.

Table 43 shows the percentage of trips by permit type not exceeding the current 400 pound and the proposed 300 pound incidental trip limit.

Permit Category	% of trips less than 400 lbs.	% of trips less than 300 lbs.
A	13.2%	5.3%
B	97.1%	92.8%
C	48.8%	42.2%
D	81.2%	75.8%
E	97.9%	96.0%
Total	82.4%	78.2%

**Table 43 - Percent of trips landing less than current and proposed incidental limit.**

#### **6.3.2.6.4 Trip Limit and DAS Alternatives**

As was previously noted, the trip limit and DAS alternatives would impact vessels fishing for monkfish in either area, to the extent that it impacts their normal fishing activity. As in previous annual adjustments, estimation of relative economic impacts was accomplished through the use of a trip limit model to estimate average changes in per-trip vessel returns net of operating costs and crew payments, as well as changes in monkfish revenue. The analysis uses data from observed trips to simulate outcomes under alternative trip limits and DAS allocations. The trip data is compiled from FY 2005 vessel trip reports and dealer weighout slips, with the former providing catch and location data and the latter providing average monthly prices, which are used to calculate revenue estimates.

Changes in trip limits and DAS allocations are amenable to analysis when moving from higher to lower limits. While FY 2006 trip limits are the same or higher than those proposed for FY 2007-2009, the 2006 fishing year is not yet complete. FY 2005 trip limits are also higher than the proposed limits, and vessels were permitted to fish 39.3 DAS in both management areas, which is greater than the proposed limits. Therefore, this data satisfies the requirements for this analysis and can be used to analyze the economic effects of the proposed changes. As has been the case in prior annual adjustments, the effect was evaluated based on a comparison of the expected return for alternative trip-taking strategies. A vessel may abandon a trip if the trip limit causes earnings to fall below zero, they may continue to fish while discarding any monkfish above the trip limit, or they may fish up to the trip limit and then return to port. Assuming that a trip is taken, vessels may choose to continue fishing while discarding monkfish over the trip limit so long as the revenue earned from other species offsets the costs of fishing. Trips where other species make up a relatively small portion of the trip revenue may lead to trips being discontinued when the trip limit is reached, since the cost of continued fishing would exceed the additional revenue.

For the purpose of this analysis, it is assumed that if vessels took trips in both the NFMA and SFMA, these vessels are indifferent between taking a trip in either area. Rather they will choose to take the trip that maximizes net trip revenue. To model this assumption, all trips taken by limited access monkfish permit holders landing monkfish were ordered by descending revenue for each vessel. Each trip is then analyzed as follows. If the total monkfish landed is less than or

equal to the incidental trip limit or the relevant monkfish management area DAS limit has not been reached, then the trip is unchanged. If the DAS limit has been reached, then the monkfish catch is reduced to the relevant incidental catch limit and the appropriate strategy for the vessel (i.e., ending the trip or continuing to fish while discarding any additional monkfish catch) is determined along with the return (in terms of revenue) from the strategy. If the DAS limit has not been reached and the monkfish catch is greater than the incidental limit, then the monkfish catch is reduced to the relevant trip limit and the vessel's revenue maximizing strategy and resulting return is determined.

The relative change in net return to the vessel was estimated by calculating the average per-trip returns to the vessel owner using both the FY 2006 trip limits and the proposed FY 2007 trip limits. These returns take into account operating costs, which were estimated using trip cost data collected on observer logs in FY 2005. Trips landing monkfish during FY 2005 in the NFMA and SFMA were identified, and the total trip cost was estimated as using a regression of the logarithm of trip cost against the logarithms of days absent, the number of crew, and a dummy variable indicating if the vessel gear type is gillnet. The parameters from this regression were then used to construct estimates of trip cost and cost per day absent for all trips landing monkfish during FY 2005. Returns to the vessel were calculated using a standard 60/40 lay system where 40 percent of the gross revenue goes to the vessel and 60 percent is shared among the crew, who pay for the operating expenses for the trip. Therefore, the net to the crew is the difference between the 60 percent share and the operating costs.

Since a necessary assumption of the trip limit model is that fishing location decisions are unchanged under new rules, an analysis of the impacts of the proposed measures is conducted separately for vessels fishing only in the NFMA, vessels fishing only in the SFMA, and vessels fishing in both areas. In reality, this is a simplification and a limitation of the model, since vessels could change their fishing location in order to mitigate some of the negative impacts from regulations. The results are presented as the single year relative change from the FY 2006 baseline to each of the alternative combinations. Any impacts may be mitigated by an expected increase in monkfish prices due to the overall reduction in monkfish landings. At this time, no model exists that can predict monkfish prices with a sufficient degree of accuracy, due to the nature of the monkfish market. There is a limited market for monkfish in the U.S., with the majority of monkfish landings being exported to Europe and Asia. The price of monkfish received in this country is dependent on the economic conditions in the countries to which monkfish is exported, as well as worldwide landings of monkfish.

#### **6.3.2.6.4.1 Vessels Only Fishing in NFMA**

Based on the trip limit model, the results of which appear in Table 44, the per trip average vessel return on monkfish trips would decline from 2.8 to 12.1 percent, depending on the incidental limit and DAS/trip limit alternative chosen. Average crew return would decline between 4.6 percent and 20.1 percent, with revenues from monkfish declining between 10.5 percent and 45.8 percent. For these vessels, the simulation indicates that the combination of the 400 pound incidental limit, no trip limit, and 21 DAS would have the smallest impact. The largest impact would be seen with the alternative not requiring monkfish DAS but with trip limits of 168 pounds for permit categories A and C and 152 pounds for permit

categories B and D. Since these trip limits are less than either the current or proposed incidental trip limit, this alternative would effectively end the directed fishery.

Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
<b>300</b>	No Limit	No Limit	21	-4.5%	-7.4%	-16.8%
	1250	886	23	-4.8%	-8.1%	-18.4%
	<b>1250</b>	<b>470</b>	<b>31</b>	<b>-4.9%</b>	<b>-8.2%</b>	<b>-18.7%</b>
	869	338	40	-5.1%	-8.6%	-19.6%
	168	152	Not. Req.	-12.1%	-20.1%	-45.8%
400	No Limit	No Limit	21	-2.8%	-4.6%	-10.5%
	1250	683	23	-3.5%	-5.7%	-13.1%
	1250	435	31	-3.6%	-5.9%	-13.6%
	787	327	40	-4.1%	-6.8%	-15.6%
	168	152	Not. Req.	-12.1%	-20.1%	-45.8%

**Table 44 - Change from FY 2006 to Alternatives - Vessels Only Fishing in NFMA. Proposed action is in bold.**

**6.3.2.6.4.2 Vessels Only Fishing in SFMA**

Results for vessels only fishing in the SFMA appear in Table 45. Since the proposed action would not change the trip limits or DAS for the SFMA, there would be no expected change from FY 2006 levels.

Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS	Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
<b>50</b>	<b>550</b>	<b>450</b>	<b>12</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>

**Table 45 - Change from FY 2006 to Alternatives - Vessels Only Fishing in SFMA. Proposed action is in bold.**

**6.3.2.6.4.3 Vessels Fishing in Both NFMA and SFMA**

Vessels fishing in both the NFMA and SFMA will be simultaneously affected by the incidental trip limit and DAS/trip limit alternative chosen for the NFMA and the DAS/trip limit alternative chosen for the SFMA. While these vessels have a demonstrated capability to shift between areas and may be more likely to change fishing locations than vessels that have historically fished solely in one area, the trip limit model does not incorporate this possibility. Rather, it is assumed that vessels continue fishing in the same locations they did previously and results are calculated for each possible combination of NFMA and SFMA alternatives. Overall, the ability of these vessels to fish in both areas mitigates the impacts from changes in regulations in either area, as has been seen in past annual adjustments. As was the case with vessels fishing only in the SFMA, it was necessary to assume that all vessels would be subject to the minimum incidental trip limit of 50 pounds/DAS up to 150 pounds total in the SFMA. Since some vessels would be

permitted to retain more than this amount, the impacts on these vessels would be mitigated. The results are presented in Table 46. The specific combination of measures leading to the best outcome for this set of vessels is the combination of a 400 pound incidental limit, no trip limit for directed trips, and 21 DAS in the NFMA and 550 pound trip limit for categories A, C, and G vessels, 450 pound trip limit for categories B, D, and H, and 12 DAS in the SFMA. This combination of measures leads to the smallest reductions in monkfish revenues and average changes in vessel revenue and crew payment.

Incidental Trip Limit	NFMA Alternatives			SFMA Alternatives				Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
	Trip Limit AC	Trip Limit BD	DAS	Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS			
<b>300</b>	No Limit	No Limit	21	50	550	450	12	-0.7%	-1.0%	-11.7%
	1250	886	23	50	550	450	12	-0.9%	-1.2%	-12.4%
	<b>1250</b>	<b>470</b>	<b>31</b>	<b>50</b>	<b>550</b>	<b>450</b>	<b>12</b>	<b>-0.8%</b>	<b>-1.2%</b>	<b>-13.5%</b>
	869	338	40	50	550	450	12	-0.9%	-1.3%	-14.8%
	168	152	Not. Req.	50	550	450	12	-1.6%	-2.3%	-27.0%
400	No Limit	No Limit	21	50	550	450	12	-0.3%	-0.5%	-5.2%
	1250	683	23	50	550	450	12	-0.5%	-0.7%	-7.1%
	1250	435	31	50	550	450	12	-0.6%	-0.8%	-8.8%
	787	327	40	50	550	450	12	-0.6%	-0.9%	-10.9%
	168	152	Not Req.	50	550	450	12	-1.3%	-1.9%	-22.8%

**Table 46 - Change from FY 2006 to Alternatives - Vessels Fishing in NFMA and SFMA. Proposed action is in bold.**

**6.3.2.6.5 Moratorium on Directed Fishing**

NFMA Alternatives				SFMA Alternatives				Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS			
<i>Vessels Fishing Only in NFMA</i>										
300	0	0	0					-7.0%	-11.9%	-26.8%
400	0	0	0					-4.9%	-8.2%	-18.7%
<i>Vessels Fishing in SFMA Only</i>										
				50	0	0	0	-3.4%	-4.5%	-52.5%
<i>Vessels Fishing in NFMA and SFMA</i>										
<i>- Only NFMA Directed Fishery Closed</i>										
300	0	0	0	50	550	450	12	-1.1%	-1.7%	-19.4%
400	0	0	0	50	550	450	12	-0.7%	-1.0%	-11.2%
<i>- Only SFMA Directed Fishery Closed</i>										
300	No Limit	No Limit	21	50	0	0	0	-2.6%	-2.7%	-9.5%
	1250	886	23	50	0	0	0	-2.6%	-2.7%	-10.3%
	1250	470	31	50	0	0	0	-2.7%	-2.9%	-11.6%
	869	338	40	50	0	0	0	-2.8%	-3.1%	-14.1%
	168	152	No Limit	50	0	0	0	-3.7%	-4.2%	-28.1%
400	No Limit	No Limit	21	50	0	0	0	-2.3%	-2.2%	-3.5%
	1250	886	23	50	0	0	0	-2.4%	-2.4%	-5.8%
	1250	470	31	50	0	0	0	-2.5%	-2.5%	-7.7%
	869	338	40	50	0	0	0	-2.7%	-2.8%	-10.7%
	168	152	No Limit	50	0	0	0	-3.5%	-3.9%	-24.3%
<i>- Both NFMA and SFMA Directed Fisheries Closed</i>										
300	0	0	0	50	0	0	0	-3.2%	-3.5%	-19.3%
400	0	0	0	50	0	0	0	-2.7%	-2.8%	-11.1%

Table 47 reports the results from the simulation of an end of the directed monkfish fishery relative to FY 2006 conditions. The original FMP called for ending the directed fishery in the fourth year of the rebuilding plan, a provision later replaced by Framework 2 that established the annual adjustment process. Due to the large increase in the monkfish stocks necessary in the final three years of the rebuilding plan, NMFS is considering closing the directed fishery in the SFMA under this interim rule. This would have uniformly negative impacts on vessel return, crew payment, and revenue from monkfish for vessels participating in the monkfish fishery. However, as in the previous analyses of vessels fishing in the SFMA, it was necessary to assume that all vessels would be subject to the minimum incidental trip limit of 50 pounds/DAS up to 150 pounds total. Some vessels would be permitted to retain more than this amount, and the impacts on these vessels would be smaller than those reported in Table 47. Results are provided for vessels fishing only in the NFMA, vessels fishing only in the SFMA, and vessels fishing in both areas. Situations in which only the NFMA or SFMA directed fishery is closed, or both directed fisheries are closed are also analyzed.

NFMA Alternatives				SFMA Alternatives				Average Change in Vessel Return	Average Change in Net Payment to Crew	Average Change in Monkfish Revenue
Incidental Trip Limit	Trip Limit AC	Trip Limit BD	DAS	Incidental Trip Limit	Trip Limit ACG	Trip Limit BDH	DAS			
<i>Vessels Fishing Only in NFMA</i>										
300	0	0	0					-7.0%	-11.9%	-26.8%
400	0	0	0					-4.9%	-8.2%	-18.7%
<i>Vessels Fishing in SFMA Only</i>										
				50	0	0	0	-3.4%	-4.5%	-52.5%
<i>Vessels Fishing in NFMA and SFMA</i>										
<i>- Only NFMA Directed Fishery Closed</i>										
300	0	0	0	50	550	450	12	-1.1%	-1.7%	-19.4%
400	0	0	0	50	550	450	12	-0.7%	-1.0%	-11.2%
<i>- Only SFMA Directed Fishery Closed</i>										
300	No Limit	No Limit	21	50	0	0	0	-2.6%	-2.7%	-9.5%
	1250	886	23	50	0	0	0	-2.6%	-2.7%	-10.3%
	1250	470	31	50	0	0	0	-2.7%	-2.9%	-11.6%
	869	338	40	50	0	0	0	-2.8%	-3.1%	-14.1%
	168	152	No Limit	50	0	0	0	-3.7%	-4.2%	-28.1%
400	No Limit	No Limit	21	50	0	0	0	-2.3%	-2.2%	-3.5%
	1250	886	23	50	0	0	0	-2.4%	-2.4%	-5.8%
	1250	470	31	50	0	0	0	-2.5%	-2.5%	-7.7%
	869	338	40	50	0	0	0	-2.7%	-2.8%	-10.7%
	168	152	No Limit	50	0	0	0	-3.5%	-3.9%	-24.3%
<i>- Both NFMA and SFMA Directed Fisheries Closed</i>										
300	0	0	0	50	0	0	0	-3.2%	-3.5%	-19.3%
400	0	0	0	50	0	0	0	-2.7%	-2.8%	-11.1%

**Table 47 - Change from FY 2006 to No Directed Fishing.**

**6.3.2.6.6 DAS Carryover Alternatives**

The alternatives concerning carryover DAS would affect all vessels with monkfish DAS they would like to carry over to the next fishing year. Since the average number of monkfish DAS carried over from FY 2005 to FY 2006 was roughly 8.5, the proposed measure to prohibit the use of DAS carryover under this interim rule could represent a decrease in fishing opportunity for some vessels, to the extent that the DAS would have been used in the following fishing year.

**6.3.2.6.7 Permit Category H (NC/VA) Fishery boundary**

Amendment 2 established a new fishery for some vessels that did not qualify for a limited access permit in the initial FMP. Seven vessels qualified for this fishery and six are actively fishing. These vessels have been constrained by area closures to protect sea turtles, so that the area available to them for fishing is approximately 20 miles wide. This, coupled with the limited season when monkfish are available in the area, led the industry to request that the boundary for the fishery be moved northward 20 miles from 38°20'N to 38°40'N. The proposed action would increase the fishing opportunities available to the affected vessels.



#### **6.3.2.6.8 Scallop Closed Area Access Program Monkfish Incidental Limit**

Under the no action alternative (Alternative 2), scallop vessels fishing in the Closed Area Access programs have a monkfish incidental limit applicable to vessels fishing with a dredge and not on a scallop DAS, or 50 lbs. per day to a maximum of 150 lbs. tail weight. Under Alternative 1, the proposed action, the incidental limit applicable to those vessels would be the same as applies to scallop vessels fishing on a scallop DAS, or 300 lbs. tail wt. per DAS, except that the incidental limit will be based only on the time that the vessel is in the closed area, and not including steaming time. Alternative 1 will have a slightly positive economic effect compared to the no action alternative, because it will enable scallop vessels to convert discards to landings and realize the revenue from that catch. The magnitude of this effect, however, is not expected to be significant relative to the value of the scallop landings on those trips. NMFS does not expect that Alternative 1 presents any new incentive for scallop vessels to target monkfish under the increased incidental limit, given the relative value of the scallop catch to the difference in allowable monkfish landings under the two alternatives.

#### **6.4 Endangered Species Act (ESA)**

Section 7 of the ESA requires Federal agencies conducting, authorizing, or funding activities that affect threatened or endangered species to ensure that those effects do not jeopardize the continued existence of listed species. The measures contained in this interim rule do not constitute a modification to the operation of the monkfish fishery under the FMP that would cause an effect to ESA-listed species or critical habitat not considered in the April 14, 2003, Biological Opinion (Opinion). In addition, these measures are not expected to result in an increase in effort or a shift in effort in the fishery, and there is no new information on interactions of listed species with the fishery or on the status of ESA-listed species under the jurisdiction of NMFS that would change the conclusions of the previous Opinion. Furthermore, the incidental take statement specified in the Opinion has not been exceeded. Therefore, NMFS has concluded that this proposed temporary interim rule is not likely to result in jeopardy to any ESA-listed species under NOAA Fisheries jurisdiction, or alter or modify any critical habitat, based on the analyses and discussions in this document. For further information on the potential impacts of the fishery and proposed management action, see Section 5.1.2 of this document.

#### **6.5 Marine Mammal Protection Act (MMPA)**

This action will result in a reduction in fishing effort in the NFMA and maintain current effort levels (FY 2006 management measures) in the SFMA. Therefore, this action will result in effort levels that are at or below those considered in prior consultations on the monkfish fishery. NMFS has reviewed the impacts of this action on marine mammals, and concluded that the proposed actions are consistent with the provisions of the MMPA, and would not alter existing measures to protect the species likely to inhabit the management unit of the monkfish fishery. For further information on the potential impacts of the fishery and the proposed management action, see Section 5.1.2 of this document.

#### **6.6 Paperwork Reduction Act (PRA)**

The purpose of the PRA is to control and, to the extent possible, minimize the paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by or for the Federal Government. This action does not introduce any new reporting, recordkeeping, or other compliance requirements.

## **6.7 Coastal Zone Management Act (CZMA)**

The Councils determined that Framework 4 is consistent to the maximum extent practicable with the enforceable policies of the approved coastal management program of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and North Carolina. This determination was submitted on January 12, 2007, for review by the responsible state agencies under section 307 of the CZMA. The states of Pennsylvania, Delaware, Virginia, and North Carolina have provided their concurrence with this determination, and a response from the State of New Hampshire is still pending. For the remaining states, consistency has been inferred with respect to the proposed Framework 4 measures. Because this action temporarily implements some of the management measures contained in Framework 4 as an interim rule, and also continues management measures for the SFMA for which the affected states previously provided concurrence in 2006, a new CZMA consistency determination is not required. However, due to timing issues surrounding New Hampshire's consistency review of Framework 4, NMFS has requested an expedited review of this action under the exigent circumstances exemption of the CZMA regulations (15 CFR 930.32(b)).

## **6.8 Data Quality Act (DQA)**

Pursuant to NOAA Fisheries guidelines implementing Section 515 of Public Law 106-554 (the Data Quality Act), all information products released to the public must first undergo a Pre-Dissemination Review to ensure and maximize the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies. The following paragraphs address these requirements.

### **Utility**

The information presented in this document is helpful to the intended users (the affected public) by presenting a clear description of the purpose and need of the proposed action, the measures proposed, and the impacts of those measures. A discussion of the reasons for selecting the proposed action is included so that intended users may have a full understanding of the proposed action and its implications. The intended users of the information contained in this document include individuals involved in the monkfish fishery, (e.g., fishing vessels, fish processors, fish processors, fishery managers), and other individuals interested in the management of the monkfish fishery. The information contained in this document will be helpful and beneficial to owners of vessels holding limited access monkfish permits since it will notify these individuals of changes to the monkfish target TACs, DAS allocations, trip limits, and incidental catch limits for FY 2007. This information will enable these individuals to adjust their management practices and make appropriate business decisions based upon the new management measures.

Until a proposed rule is prepared and published, this document is the principal means by which the information contained herein is available to the public. The information provided in this document is based on the most recent available information from the relevant data sources. The information contained in this document includes detailed, and relatively recent information on the monkfish resource and, therefore, represents an improvement over previously available information. The information product will be subject to public comment through proposed rulemaking, as required under the Administrative Procedure Act and, therefore, may be improved based on comments received.

This document is available in several formats, including printed publication, and online through the NMFS's web page ([www.nero.noaa.gov](http://www.nero.noaa.gov)). The Federal Register notice that announces the proposed rule and the final rule and implementing regulations will be made available in printed publication, on the website for the Northeast Regional Office ([www.nero.noaa.gov](http://www.nero.noaa.gov)), and through the Regulations.gov website. The Federal Register documents will provide metric conversions for all measurements.

### **Integrity**

Prior to dissemination, information associated with this action, independent of the specific intended distribution mechanism, is safeguarded from improper access, modification, or destruction, to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information. All electronic information disseminated by NOAA Fisheries Service adheres to the standards set out in Appendix III, "Security of Automated Information Resources," of OMB Circular A-130; the Computer Security Act; and the Government Information Security Act. All confidential information (e.g., dealer purchase reports) is safeguarded pursuant to the Privacy Act; Titles 13, 15, and 22 of the U.S. Code (confidentiality of census, business, and financial information); the Confidentiality of Statistics provisions of the Magnuson-Stevens Act; and NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics.

### **Objectivity**

For purposes of the Pre-Dissemination Review, this document is considered to be a "Natural Resource Plan." Accordingly, the document adheres to the published standards of the Magnuson-Stevens Act; the Operational Guidelines, Fishery Management Plan Process; the Essential Fish Habitat Guidelines; the National Standard Guidelines; and NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act.

This information product uses information of known quality from sources acceptable to the relevant scientific and technical communities. Several sources of data were used in the development of Framework 4, and this interim rule. These data sources included, but were not limited to, historical and current landings data from the Commercial Dealer Weighout database, vessel trip report (VTR) data, effort data collected through the monkfish DAS program, and fisheries independent data collected through the NMFS bottom trawl surveys. Therefore, the analyses contained in this document were prepared using data from accepted sources. In addition, the relevant analyses carried forward from Framework 4 to this interim action were reviewed by members of the Monkfish Plan Development Team.

Despite current data limitations, the conservation and management measures proposed for this action were selected based upon the best scientific information available. The analyses conducted in support of the proposed action were conducted using information from the most recent fishing years through FY 2005, and also for calendar year 2005. Specialists (including professional members of plan development teams, technical teams, committees, and Council staff) who worked with these data are familiar with the most current analytical techniques and with the available data and information relevant to the monkfish fishery.

The policy choices are clearly articulated, in Section 3.0 of this document, as the management alternatives considered in this action. The supporting science and analyses, upon which the policy choices are based, are summarized and described in Section 5.0 of this document. All supporting materials, information, data, and analyses within this document have been, to the maximum extent practicable, properly referenced according to commonly accepted standards for scientific literature to ensure transparency.

The review process used in preparation of this document involves the responsible Council (the NEFMC), the Northeast Fisheries Science Center (Center), the Northeast Regional Office (NERO), and NOAA Fisheries Service Headquarters. The Center's technical review is conducted by senior level scientists with specialties in population dynamics, stock assessment methods, demersal resources, population biology, and the social sciences. The Council review process involves public meetings at which affected stakeholders have opportunity to provide comments on the document. Review by staff at the Regional Office is conducted by those with expertise in fisheries management and policy, habitat conservation, protected species, and compliance with the applicable law. Final approval of any proposed regulatory action, including any implementing regulations, is conducted by staff at NOAA Fisheries Service Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget. In addition, the information contained in this document concerning monkfish stock status (SAW 40) was peer reviewed according to standard methodology (Stock Assessment Review Committee; SARC).

#### **6.9 Executive Order 13132 (Federalism)**

This E.O. established nine fundamental federalism principles for Federal agencies to follow when developing and implementing actions with federalism implications. The E.O. also lists a series of policy making criteria to which Federal agencies must adhere when formulating and implementing policies that have federalism implications. However, no federalism issues or implications have been identified relative to the measures proposed in FW 42. This action does not contain policies with federalism implications sufficient to warrant preparation of an assessment under E.O. 13132. The affected were closely involved in the development of Framework 4, upon which this interim action is based, through their representation on the Council (all affected states are represented as voting members of at least one Regional Fishery Management Council). No comments were received from any state officials relative to any federalism implications that may be associated with this action.

#### **6.10 Executive Order 13158 (Marine Protected Areas)**

The Executive Order on Marine Protected Areas requires each federal agency whose actions affect the natural or cultural resources that are protected by an MPA to identify such actions, and, to the extent permitted by law and to the maximum extent practicable, in taking such actions, avoid harm to the natural and cultural resources that are protected by an MPA. The E.O. directs federal agencies to refer to the MPAs identified in a list of MPAs that meet the definition of MPA for the purposes of the Order. The E.O. requires that the Departments of Commerce and the Interior jointly publish and maintain such a list of MPAs. As of the date of submission of this FMP, the list of MPA sites has not been developed by the departments. No further guidance related to this Executive Order is available at this time.

## **6.11 Administrative Procedure Act (APA)**

Section 553 of the APA establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of these requirements is to ensure public access to the Federal rulemaking process, and to give the public adequate notice and opportunity for comment.

The need to implement these measures in a timely manner to help end overfishing in the monkfish fishery and rebuild the monkfish resource constitutes good cause under authority contained in 5 U.S.C. 553(d)(3), to establish an effective date less than 30 days after date of publication. This action establishes temporary measures (target TACs, trip limits, DAS) for the monkfish fishery for FY 2007 (May 1, 2007 to April 30, 2008) that are either more restrictive than or equivalent to the measures currently in effect for FY 2006. Failure to implement these measures in a timely manner would enable the monkfish resource to be over-harvested since it would delay implementation of trip limits and DAS restrictions for vessels fishing in the NFMA for up to 30 days beyond the start of the fishing year. Currently, vessels fishing in this management area are not subject to trip limits or monkfish DAS restrictions. Therefore, any delay in implementation beyond the start of the fishing year would provide limited access monkfish vessels fishing in the NFMA with the ability to fish for monkfish under much less restrictive measures than those being implemented in this temporary interim rule, resulting in an increase in fishing effort and enabling over-harvest of the target TAC for this management area to occur. Any over-harvest of the target TAC for the NFMA would result in negative impacts to the monkfish resource as a whole since stocks in both management areas are well behind the rebuilding schedules established in the FMP. Furthermore, this action could not be implemented earlier due to timing of the final approval of Framework 4 by the Councils (November 2006 for the NEFMC and December 2006 for the MAFMC), which resulted in a late submission of this action by the NEFMC on January 11, 2007. A proposed rule for this action was submitted to Headquarters for clearance on February 15, 2007, but clearance was delayed until concerns with the action could be discussed and an alternative approach agreed upon. A revised joint proposed rule, for Framework 4 and this interim rule, was submitted to NMFS Headquarters for clearance on March 9, 2007, with publication of the proposed rule occurring on March 20, 2007. In order to implement this final rule before the start of FY 2007 and prevent any negative impacts to the monkfish resource resulting from a delay in implementation, such as over-harvesting of the target TAC for the NFMA, NMFS believes that there is good cause to waive the 30-day delay in effectiveness.

## **7.0 References**

- Best, P.B., J. L. Bannister, R.L. Brownell, Jr., and G.P. Donovan (eds.). 2001. Right whales: worldwide status. *J. Cetacean Res. Manage.* (Special Issue) 2. 309pp.
- Braun-McNeill, J., and S.P. Epperly. 2004. Spatial and temporal distribution of sea turtles in the western North Atlantic and the U.S. Gulf of Mexico from Marine Recreational Fishery Statistics Survey (MRFSS). *Mar. Fish. Rev.* 64(4):50-56.
- Brown, M.W., O.C. Nichols, M.K. Marx, and J.N. Ciano. 2002. Surveillance of North Atlantic right whales in Cape Cod Bay and adjacent waters—2002. Final Report to the Division of Marine Fisheries, Commonwealth of Massachusetts. 29pp.
- Clapham, P.J., S.B. Young, and R.L. Brownell. 1999. Baleen whales: Conservation issues and the status of the most endangered populations. *Mammal Rev.* 29(1):35-60

- Hirth, H.F. 1997. Synopsis of the biological data of the green turtle, *Chelonia mydas* (Linnaeus 1758). USFWS Biological Report 97(1). 120pp.
- James, M.C., R.A. Myers, and C.A. Ottenmeyer. 2005a. Behavior of leatherback sea turtles, *Dermochelys coriacea*, during the migratory cycle. Proc. R. Soc. B, 272: 1547-1555.
- Johnson, A., G. Salvador, J. Kenney, J. Robbins, S. Kraus, S. Landry, and P. Clapham. 2005. Fishing gear involved in entanglements of right and humpback whales. Mar. Mamm. Sci. 21(4): 635-645.
- Katona, S.K., V. Rough, and D.T. Richardson. 1993. A field guide to whales, porpoises, and seals from Cape Cod to Newfoundland. Smithsonian Institution Press, Washington, D.C. 316pp.
- Keinath, J.A., J.A. Musick, and R.A. Byles. 1987. Aspects of the biology of Virginias sea turtles: 1979-1986. Virginia J. Sci. 38(4): 329-336.
- Kenney, R.D. 2002. North Atlantic, North Pacific, and Southern hemisphere right whales. In: W.F.Perrin, B. Wursig, and J.G.M. Thewissen (eds.), Encyclopedia of Marine Mammals. Academic Press, CA. pp. 806-813.
- Morreale, S.J. and E.A. Standora. 1998. Early life stage ecology of sea turtles in northeastern U.S. waters. U.S. Dep. Commer. NOAA Tech. Mem. NMFS-SEFSC-413, 49 pp.
- Morreale, S.J. and E.A. Standora. 2005. Western North Atlantic waters: Crucial developmental habitat for Kemp's ridley and loggerhead sea turtles. Chel. Conserv. Biol. 4(4):872-882.
- Musick, J.A. and C.J. Limpus. 1997. Habitat utilization and migration in juvenile sea turtles. Pp. 137-164 In: Lutz, P.L., and J.A. Musick, eds., The Biology of Sea Turtles. CRC Press, New York. 432 pp.
- New England Fishery Management Council. 1998. The Omnibus Habitat Amendment. (Amendment 11 – Multispecies, Amendment 9 – Sea Scallops, Amendment 1 – Monkfish, Amendment 1 – Atlantic Salmon, and Components of proposed Atlantic Herring FMP).
- New England Fishery Management Council. 2003. Framework 2 to the Monkfish FMP.
- New England Fishery Management Council. 2004. Amendment 2 to the Monkfish FMP.
- NMFS. 1991. Final recovery plan for the humpback whale (*Megaptera novaeangliae*). Prepared by the Humpback Whale Recovery Team for the National Marine Fisheries Service, Silver Spring, Maryland. 105 pp.
- NMFS. 1998. Recovery Plan for the blue whale (*Balaenoptera musculus*). Prepared by R.R. Reeves, P.J. Clapham, R.L. Brownell, Jr., and G.K. Silber for the National Marine Fisheries Service, Silver Spring, MD. 42pp.
- NMFS. 2005. Recovery Plan for the North Atlantic right whale (*Eubalaena glacialis*). National Marine Fisheries Service, Silver Spring, MD. 137pp.
- NMFS and U.S. Fish and Wildlife Service (USFWS). 1991a. Recovery plan for U.S. population of loggerhead turtle. National Marine Fisheries Service, Washington, D.C. 64 pp.
- NMFS and USFWS. 1991b. Recovery plan for U.S. population of Atlantic green turtle. National Marine Fisheries Service, Washington, D.C. 58 pp.
- NMFS and USFWS. 1992. Recovery plan for leatherback turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico. National Marine Fisheries Service, Washington, D.C. 65 pp.
- NMFS and USFWS. 1995. Status reviews for sea turtles listed under the Endangered Species Act of 1973. National Marine Fisheries Service, Silver Spring, MD. 139 pp.
- NOAA/NMFS. Status of the Stocks Report for the Northeast Region – Q4 2005.

- Perry, S.L., D.P. DeMaster, and G.K. Silber. 1999. The great whales: History and status of six species listed as endangered under the U.S. Endangered Species Act of 1973. *Mar. Fish. Rev.* Special Edition. 61(1): 59-74.
- Pollnac, R.B. and J.J. Poggie (2006) Job Satisfaction in the Fishery in Two Southeast Alaskan Towns, special issue *Human Organization*, Research and Resource Management in North American Fisheries, Lisa L. Colburn ed., 65(3)329-339.
- Pollnac, R.B. and J.J. Poggie (1988) The Structure of Job Satisfaction among New England Fishermen and its Application to Fisheries Management Policy, *American Anthropologist*, 90:888-901.
- Shoop, C.R. and R.D. Kenney. 1992. Seasonal distributions and abundance of loggerhead and leatherback sea turtles in waters of the northeastern United States. *Herpetol. Monogr.* 6: 43-67.
- Stevenson, D.K., L.A. Chiarella, C.D. Stephan, R.N. Reid, G.E. McCarthy, M. Pentony. In Press. Characterization of Fishing Practices and the Marine Benthic Ecosystems of the Northeast U.S. Shelf, and an evaluation of the potential effects of fishing on essential fish habitat. NOAA Technical Memorandum (In Press). 165 p.
- Swingle, W.M., S.G. Barco, T.D. Pitchford, W.A. McLellan, and D.A. Pabst. 1993. Appearance of juvenile humpback whales feeding in the nearshore waters of Virginia. *Mar. Mamm. Sci.* 9: 309-315.
- Turtle Expert Working Group (TEWG). 1998. An assessment of the Kemp's ridley (*Lepidochelys kempii*) and loggerhead (*Caretta caretta*) sea turtle populations in the Western North Atlantic. NOAA Technical Memorandum NMFS-SEFSC-409. 96 pp.
- Turtle Expert Working Group (TEWG). 2000. Assessment update for the Kemp's ridley and loggerhead sea turtle populations in the western North Atlantic. U.S. Dep. Commer. NOAA Tech. Mem. NMFS-SEFSC-444, 115 pp.
- USFWS. 1997. Synopsis of the biological data on the green turtle, *Chelonia mydas* (Linnaeus 1758). Biological Report 97(1). U.S. Fish and Wildlife Service, Washington, D.C. 120 pp.
- USFWS and NMFS. 1992. Recovery plan for the Kemp's ridley sea turtle (*Lepidochelys kempii*). NMFS, St. Petersburg, Florida.
- Waring, G.T., D.L. Palka, P.J. Clapham, S. Swartz, M. Rossman, T. Cole, L.J. Hansen, K.D. Bisack, K. Mullin, R.S. Wells, D.K. Odell, and N.B. Barros. 1999. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments - 1999. NOAA Technical Memorandum NMFS-NE-153.
- Waring, G.T., E. Josephson, C.P. Fairfield, and K. Maze-Foley, Editors. 2006. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments-2005. NOAA Tech. Memo. NMFS-NE-194, 352pp.
- Wiley, D.N., R.A. Asmutis, T.D. Pitchford, and D.P. Gannon. 1995. Stranding and mortality of humpback whales, *Megaptera novaengliae*, in the mid-Atlantic and southeast United States, 1985-1992. *Fish. Bull.*, U.S. 93:196-205.
- Wynne, K. and M. Schwartz. 1999. Guide to marine mammals and turtles of the U.S. Atlantic and Gulf of Mexico. Rhode Island Sea Grant, Narragansett. 115pp.
- Waring, G.T., R.M. Pace, J.M. Quintal, C. P. Fairfield, K. Maze-Foley (eds). 2003. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments - 2003 . NOAA Technical Memorandum NMFS-NE-182. 287 p.

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