

**FRAMEWORK ADJUSTMENT 1
to the
MONKFISH FISHERY MANAGEMENT PLAN**

**To implement management measures
for the 2002 fishing year**

Prepared by
New England Fishery Management Council
and Mid-Atlantic Fishery Management Council

in consultation with
National Marine Fisheries Service

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Environmental Assessment

1.0 Introduction

1.1 Executive Summary

The New England and Mid-Atlantic Fishery Management Councils jointly manage the monkfish fishery, with the New England Council (Council) having the lead authority. This is the first framework adjustment to the Monkfish Fishery Management Plan (FMP). This framework will specify optimum yield (OY) and management area catch targets (TACs) for Year 4 of the FMP's rebuilding plan, starting May 1, 2002. The FMP implementing regulations require a review of the progress of the plan's effectiveness during the current fishing year, and modification as needed through the framework adjustment procedure of the Year 4 default measures contained in the original FMP.

The Year 4 default measures call for elimination of the directed monkfish fishery and reduced incidental catch limits. No action is required by the Councils for these measures to take effect on May 1, 2002. The Councils considered two alternatives that would delay the default measures for one year, and either modify TACs to allow for a one-year extension of fishing effort at current levels (preferred alternative), or reduce effort to levels calculated to achieve the Years 2 and 3 TACs as calculated in the original FMP in 1998 (non-preferred alternative). Within each of these alternatives is a range of options that adjust trip limits and/or days at sea (DAS) allocations to achieve the TACs.

Upon review of the analysis and public comment, the Councils recommend the following specification of optimum yield and TACs for the Northern Fishery Management Area (NFMA) and Southern Fishery Management Area (SFMA) for Year 4:

NFMA	SFMA	TOTAL (OY)
11,674 mt	7,921 mt	19,595 mt

Proposed management area TACs and specification of optimum yield for fishing year 2002-2003 (Year 4)

A Federal court decision in 2001 requires that trip limits in the SFMA be established so that both trawl and gillnet vessels in the same permit category operate under the same trip limit. Since there is no trip limit on either gears type in the NFMA, the decision does not require adjustment of the regulations for that area to achieve the preferred alternative. After considering alternatives that would adjust trip limits and/or DAS in the SFMA, the Councils recommend the following measures to achieve the TACs:

DAS: 40 monkfish DAS for both areas

Trip limits:

NFMA: no trip limit while on monkfish or multispecies DAS (same measures as in Years 2 and 3)

SFMA: 550 lbs. (tail weight, per DAS) for permit categories A and C (limited access permit categories for vessels that met higher qualification

criteria), or 450 lbs. (tail weight, per DAS) for permit categories B and D (limited access permit categories for vessels that met lower qualification criteria)

The Councils' rationale for the preferred alternative is based on an evaluation of the best available scientific information about the stock status. The following are the main points of that evaluation:

- Several of the assumptions underlying the 1997 stock assessment used to calculate initial fishing mortality reference points in the FMP have been invalidated by two more recent Stock Assessment Workshops (SAWs 31 and 34). Application of updated data and a more reasonable set of assumptions resulted in an unfeasible (negative) estimate of the fishing mortality threshold in the NFMA. This also indicates that fishing mortality rates estimated using length composition data from the NMFS surveys are not reliable point estimates of the exploitation status of monkfish and should not be used to set TACs. In the fall of 2001, the Monkfish Monitoring Committee concluded that the TACs in the FMP for FY2002 are inadequate measures of the fishery performance relative to the management objectives.
- SAW 34 recommended that the fishing mortality threshold be set at $F_{max}=0.2$ but did not conduct short-term projections that could be the basis for setting TACs. SAW 34 also provided a range of estimates of fishing mortality for calendar year 2000. Calendar year estimates only include seven months of the effective FY2000 management measures since the fishing year started in May (imposing DAS and trip limit restrictions). Overall 61 percent of the F estimates are ≤ 0.2 , and for the intermediate assumption about survey trawl efficiency, 33 percent of the estimates are ≤ 0.2 .
- The relative exploitation index based on fishing year (FY) landings and the fall survey index declined dramatically from FY1999 to FY2000. Seasonal landings patterns suggest that even without further restrictions, fishing mortality for calendar year 2001 was lower than that for calendar year 2000. While not conclusive, the recent decline in the relative exploitation index provides additional evidence that the management program is having its intended effect.
- In the SFMA, although the 3-year running average of the survey biomass index remains below the FMP threshold level, the 2001 index rose for the third consecutive year to the highest level since 1991. In the NFMA, the 3-year average moved above the threshold in 2001, indicating that the northern stock is no longer overfished. Although new trawl survey data should be interpreted cautiously until analyzed as part of a stock assessment, the data are the primary basis for providing fishery independent information about the status of the resource.

The purpose and need for this action is discussed in Section 2.0. Section 3.0 contains a description of the proposed action and alternatives. Baseline information for evaluating the impacts of the various alternatives, the "affected environment" is described in Section 4.0 and in Appendices I and III. Section 5.0, "Environmental Consequences" provides the

methods and results of the analysis of impacts of the range of alternatives under consideration. Subsequent sections pertain to the requirements of other applicable law such as the National Environmental Policy Act (NEPA), the Endangered Species Act, the Marine Mammal Protection Act, Regulatory Flexibility Act, Executive Order 12866 (Regulatory Impact Review), Coastal Zone Management Act, and Paperwork Reduction Act.

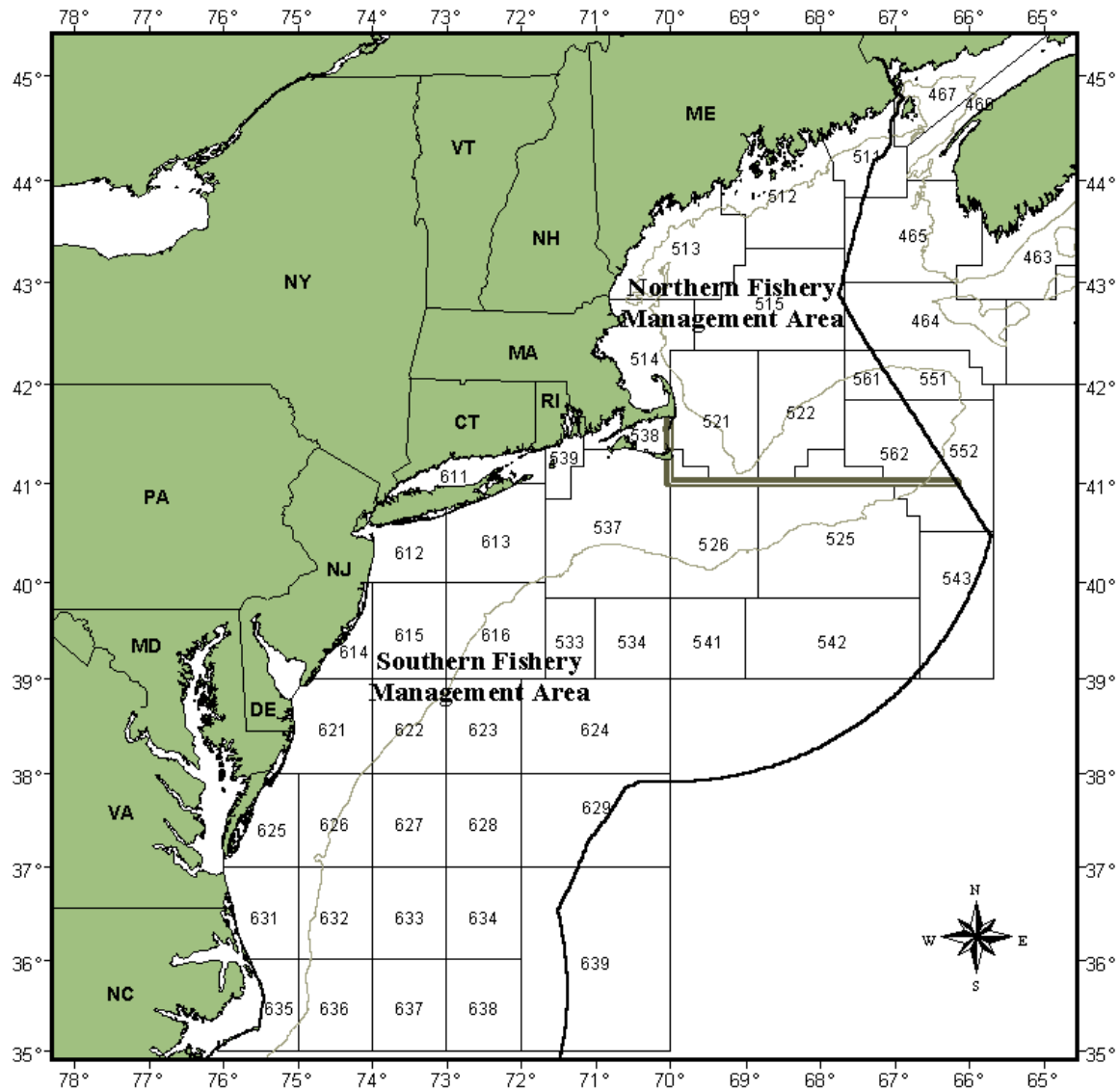


Figure 1 Monkfish management areas

1.2 Background

1.2.1 FMP implementation

The Council submitted the Monkfish FMP to NMFS on September 17, 1998. NMFS published the proposed rule on February 16, 1999 and the final rule on October 7, with an effectiveness date for implementation of November 8, 1999. The FMP contains the following measures:

- multi-level limited access program
- two management areas (see Figure 1)
- target TACs
- effort limitations (DAS)
- trip limits
- bycatch allowances
- minimum fish sizes and minimum mesh size
- gear restrictions
- spawning season closures
- a framework adjustment process
- permitting and reporting requirements
- other measures for administration and enforcement.

The FMP contains a four-year phase in of management measures to reduce fishing effort and rebuild the stocks within ten years or less. Year 1 of the plan began May 1, 1999 the scheduled start of the fishing year, even though the FMP was not implemented until six months into the fishing year. An analysis by NMFS in 2000, however, concluded that even if the Year 1 measures had been implemented on May 1, 1999, the quota for the SFMA would have been exceeded. Consequently, the Council made no adjustment to the default regulations for Year 2 or Year 3 (the current fishing year). These regulations allocated 40 DAS for directed fishing for monkfish and imposed a trip limit by permit category and gear type. For vessels fishing in the NFMA, other than scallop dredge vessels, the regulations imposed no trip limit during Years 2 and 3, regardless of whether a vessel is on a monkfish or multispecies-only DAS.

For Year 4, starting May 1, 2002, the FMP regulations include default measures that eliminate the directed fishery (zero DAS) and reduce bycatch trip limits, unless modified during the current annual review and adjustment process. These default measures are the no-action (status quo) alternative described in Section 3.2.2 below.

1.2.2 Federal Court Order

In 2001, a Rhode Island Federal Magistrate Judge issued recommendations to the Federal District Court Judge on motions for summary judgment in a suit brought by several southern New England and New Jersey gillnetters challenging the differential trip limits in the FMP for vessels fishing under a monkfish DAS. The Federal District Court Judge agreed with most of the conclusions and opinions of the Magistrate Judge and ruled that

based on the justification provided in the FMP, the differential trip limit violated National Standards Two, Four and Five. The judge vacated the 300 pound-per-day gillnet trip limit and set a 1,500 pound trip limit “for all monk fishermen...until such time as the Secretary [of Commerce] establishes a fair and equitable gear differential or otherwise revises the catch limit”. The judge later clarified the order that the trip limits apply by permit category. The effect of this order is that the trip limit on non-trawl (i.e. gillnet) vessels was raised from 300 lbs./DAS to 1,000 or 1,500 lbs./DAS, depending on permit category. A final order in the case of *Hall et al. v. Evans et al.* (C.A. No. 99-5491 (D.R.I.)) (hereinafter referred to as the ‘Federal court order’ or the ‘Federal court decision’) was issued on February 15, 2002.

1.2.3 Year 3 review/MMC recommendation

The regulations implementing the FMP require the Monkfish Monitoring Committee (MMC) to conduct a review of the status of the fishery during the current fishing year (Year 3 of the rebuilding plan). If adjustments are necessary, a framework is then initiated to insure that rebuilding to stock biomass targets by 2009 remains on schedule. The MMC considered the results of the most recent stock assessment workshop (SAW 31, June, 2000) and reviewed landings and stock survey data in recommending that the management measures currently in place (for FY2000 and FY2001) not be changed except to account for the court order. This recommendation, which the Council has incorporated into its preferred alternative, also calls for delaying for one year the default (Year 4) management measures to allow the Council sufficient time to consider the results of SAW 34 (scheduled for January, 2002) in the development of revisions to the rebuilding plan. While SAW 34 results were available to both Councils prior to approval of final action for this framework, the information was not available during the formal Year 3 review.

1.2.4 Amendment 2

Since SAW 34 was not to be completed in time to be fully considered in the development of this annual adjustment, and since the new assessment was expected to provide a basis for addressing shortcomings in the current biological reference points and overfishing definitions, the Councils have initiated an amendment to the FMP (Amendment 2) to incorporate the assessment results in a revision of the overfishing definitions and stock-rebuilding plan. The current timetable for the amendment would result in implementation of any appropriate changes to the overfishing definitions and revisions to the management program by the start of Year 5 (May, 2003). The amendment will also provide a mechanism for updating Essential Fish Habitat (EFH) and other environmental impact components of the plan through a Supplemental Environmental Impact Statement (SEIS), as well as provide an opportunity to reduce the complexity of the current management program.

2.0 Purpose and Need

2.1 Need for the adjustment

The purpose of the proposed action is to modify management measures for the monkfish fishery for fishing year (FY) 2002, based on a review of available scientific information and to account for a Federal Court Order vacating differential trip limits for trawl and non-trawl gear. This action would delay for one year the default measures in the FMP which call for eliminating the directed fishery in Year 4 (FY2002).

2.2 Publication as a final rule

The Councils recommend that NMFS publish the proposed adjustments as a final rule, and have considered the following factors as specified in 50 CFR 648.90(b) in making this recommendation:

1. timing of the rule
2. opportunity for public comment
3. need for immediate resource protection, and
4. continuing evaluation of the plan.

2.2.1 Timing of the rule

The framework adjustment procedure contained in the FMP (50 CFR §648.96) establishes a February 1 submission date for actions to be published as a final rule with an effectiveness date of May 1, the start of the fishing year. This schedule was designed to provide NMFS with a reasonable period in which to review the document for compliance with the FMP and all other applicable law. The FMP regulations specify default measures that will take effect on May 1, 2002, if there is any delay in the implementation of the adjustments proposed in this framework. The concern is more urgent, given the delayed submission of this document as a result of the MAFMC final framework meeting taking place on January 30, and the time needed to incorporate the MAFMC decision/comments into the final submission document.

2.2.2 Opportunity for public comment

The formal discussions on this proposed action, for which public notice was given, are identified below:

DATE	MEETING	AGENDA/DISCUSSION
Sept. 24, 2001	Monkfish Committee	Issues and options for annual adjustment; impact of court decision on FMP
November 5, 2001	Monkfish Committee	Review 2000 SAFE Report; develop options and recommendations for Framework 1;
November 6-8, 2001	NEFMC	First framework meeting
January 14, 2002	Monkfish Committee	Review draft document; finalize recommendations to Councils

January 15-17, 2002	NEFMC	Final framework meeting; public comments on framework options and analysis; committee recommendations; final action
January 29-31, 2002	MAFMC	Final framework meeting; public comments on framework options and analysis; committee recommendations; final action

The mailing lists for meeting notices contain approximately 800, 1,800 and 1,500 interested parties for Monkfish Committee, NEFMC and MAFMC meetings, respectively. Notices are mailed at least two weeks in advance of committee meetings, and three weeks in advance of Council meetings, and are submitted to the *Federal Register* at least three weeks in advance of the meetings. Agendas and meeting summaries for the above meetings are available from the Council Offices.

2.2.3 Need for immediate resource protection

While the no action alternative would result in a lower target TAC, it would also cause a significant increase in discards due to the reduced incidental catch limits. Because of this anticipated increase in discard mortality, it is questionable whether the lower TAC would actually reduce total mortality on the stock. The proposed action would delay the default measures for one year, while specifying trip limits to maintain landings at the Year 2 level. This is consistent with the FMP objective, which was to end overfishing in 2002 and rebuild the stock by 2009. In the meantime, the Councils will use the SAW 34 stock assessment to update overfishing definitions and implement an appropriate rebuilding program based on the best available scientific information on stock status and the effects of the current management program.

2.2.4 Continuing evaluation

The regulations require the Councils to review the plan annually and make adjustments as necessary to insure that the plan objectives are being met (50 CFR 648.96). The Councils propose this action as a result of their review of the FY2000 fishery, including information in the 2000 SAFE Report, public comment, and updated scientific information through the fall 2001 NMFS bottom trawl survey. The Councils have also started an FMP amendment that will, among other things, fully update the environmental impact documents and evaluate the effectiveness of all of the management elements of the current plan.

3.0 Proposed action and alternatives

This section contains a description of the no action alternative (Year 4 default measures), non-preferred and preferred alternatives for OY and management area TACs, and a rationale for the preferred alternative. Also included are recommended management measures associated with preferred TACs specification, as well as options for management measures considered by the Councils within both the preferred and non-preferred alternatives, covering a range of trip limits and DAS adjustments to achieve the respective TACs.

3.1 Preferred alternative

3.1.1 Preferred alternative for Optimum Yield and Management Area TACs

The Councils propose that the specification of Optimum Yield (OY) and the management area TACs be set at the level of landings generated during Year 2 of the rebuilding program.

NFMA	SFMA	TOTAL (OY)
11,674 mt	7,921 mt	19,595 mt

Table 1 Preferred Alternative for Year 4 Optimum Yield and Management Area TAC Specification

3.1.2 Preferred alternative management measures

The Councils recommend that the preferred alternative TACs be achieved through an adjustment to trip limits for trawl and non-trawl sectors designed to achieve the same level of catch as in Year 2, prior to the Federal Court Order that vacated the gear-based differential trip limits. Incorporated into this recommendation is a one-year delay in the Year 4 default measures as described below under the no-action alternative.

A preliminary trip limit analysis (Appendix I of the SAFE Report) indicated that the trip limits necessary to achieve such an objective in the SFMA would be reduced to a level that could effectively eliminate directed fishing by some vessels. Therefore, the Monkfish Committee subsequently requested that options be outlined and analyzed for consideration in this document that would raise the trip limit (from the levels indicated in the analysis) and proportionally reduce DAS allocations to achieve the TACs. The committee also requested that the analysis of increased trip limits be done based on the pattern of landings by permit category in FY1999, rather than that in FY2000, to better reflect the distribution of fishing effort without the constraint of regulations in effect in FY2000. The options outlined below provide the results of that analysis. The complete analysis report is attached as Appendix II.

3.1.2.1 NFMA

The Councils propose to retain the Year 2/Year 3 measures for vessels fishing in the NFMA. That is, vessels have 40 monkfish DAS and no trip limit when on a monkfish DAS. When fishing under a multispecies (but not a monkfish) DAS, vessels also have no trip limit. Scallop dredge vessels while on a scallop (but not a monkfish) DAS have a trip limit of 300 lbs.(tail weight)/DAS. In order to fish under the no-trip limit rules in the NFMA, a vessel must declare into the NFMA for a minimum of 30 days. When a vessel is declared into the NFMA, it may not fish for or possess monkfish while fishing in the SFMA, nor be in the SFMA while called in on a monkfish DAS, except under the transit provisions. Since the regulations did not include a differential trip limit for gillnet and trawl vessels fishing in the NFMA during Years 2 and 3, the court order did not require any change to achieve the preferred alternative TACs.

3.1.2.2 SFMA Options

The Councils propose that vessels fishing in the SFMA will continue to be allocated 40 monkfish DAS, and that vessels in Categories A and C will have a trip limit of 550 lbs. (tail weight, per DAS), while vessels in Categories B and D will have a trip limit of 450 lbs. (tail weight, per DAS).

The Councils considered three combinations of DAS and trip limits to achieve the same landings as FY2000 for the SFMA, identified as Scenarios 3a, 3c and 3d in Appendix II. The analysis of these options was based on the fishing patterns in FY2000. The alternatives not adopted are discussed in Section 3.3.2.1.2, below. The trip limits proposed in the preferred alternative are rounded off from the 544 lbs. (Categories A and C) and 457 lbs. (Categories B and D) that were indicated in the analysis results.

3.1.3 Rationale for the preferred alternative

3.1.3.1 Rationale for OY and Management Area TACs – Consistency with FMP objectives for rebuilding and fishing mortality targets

The rebuilding plan implemented by the FMP specifies incremental reductions in fishing mortality for the first three years of the plan based on 1997 data (SAW 23), and calls for setting Year 4 targets “so as to halt overfishing in 2002 and allow rebuilding to stock biomass targets from fishing years 2002 to 2009.” (preamble to the final rule, 64 *Federal Register* 64732, October 7, 1999). The fishing mortality target rates specified in the FMP for Years 2 and 3 of the plan are $F=0.07$ in the NFMA and $F=0.26$ in the SFMA.

The FMP also contains projected landings (TACs) for the rebuilding program under default measures for Year 4 (starting May, 2002) but calls for a review in Year 3 prior to implementation of the defaults. The regulations require the MMC to meet during Year 3 to “evaluate threshold and target biological reference points. If adjustments are required, a framework action shall be initiated to replace the existing (“default”) measures scheduled to take effect on May 1, 2002 (Year 4)” (50 CFR §648.96(b)).

The MMC met on September 6, 2001 and reviewed landings and NEFSC survey data through spring 2001. The MMC did not attempt to interpret the data beyond making a few general observations because it expected that these data and other relevant information would be fully analyzed in the context of the stock assessment scheduled for January, 2002. The rationale contained herein, therefore, contains information provided by the MMC (prior to the availability of the SAW), information provided by the SAW, and updates to trawl survey data subsequent to the SAW. All of these sources of information support the Council’s recommended alternative.

As noted, the TACs for monkfish were set in the FMP using fishing mortality reference points and estimates of contemporaneous fishing mortality from SARC 23 (1997). The reference points and mortality rates were estimated using an equilibrium method (Beverton-Holt length-frequency method) which depends on assumptions of constant recruitment and mortality, representative sampling of the length composition of the exploitable population, and an accurate estimate of maximum fish length. The length-based method was used for goosefish because there were no age data available at the

time. However, the assumptions of the method probably are violated, especially with respect to constant recruitment and representative sampling of the length composition.

Fishing mortality reference points and contemporaneous fishing mortality estimates were recalculated during SARC 31 (2000) using additional data and under a different hypothesis, considered more reasonable, about mean length of full selection. This resulted in an unfeasible (negative) estimate of the fishing mortality threshold for the northern area. This further indicates that fishing mortality rates estimated using length composition from NEFSC surveys are not reliable point estimates of the exploitation status of monkfish and should not be used to set TACs.

The MMC noted that even though the TACs in Year 2 were exceeded, and no new measures were implemented in Year 3, the overall decline in landings in Year 2 coupled with increased or stable survey indices for 2000-2001 suggest that the stocks may have increased (NFMA) or stabilized (SFMA) in recent years. A plot of relative exploitation ratios (landings/survey biomass) for fishing years from 1995-2000, Figure 2, shows a significant decline in 2000. While this information is not conclusive, it provides some additional evidence to support the preferred alternative, since the direction of the trend in both areas for 2000 is what would be expected if the management program were having its intended effect.

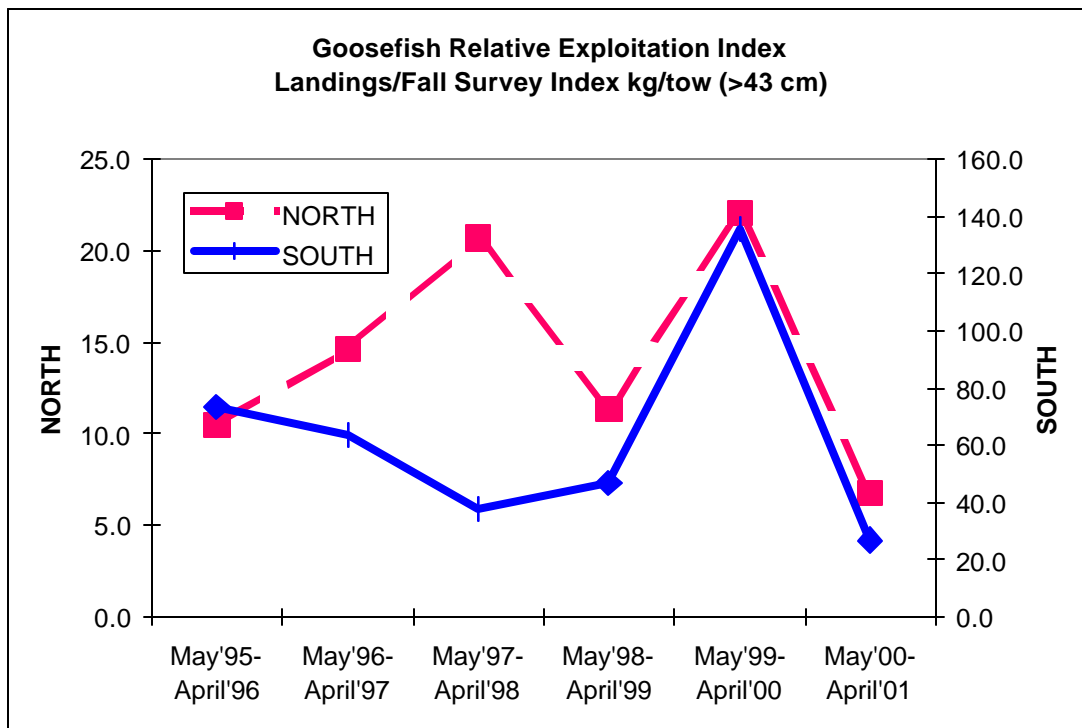


Figure 2 Relative exploitation index for fishing years 1995-2000 for NFMA and SFMA.

The MMC also commented that the default measures may be overly restrictive, resulting in unnecessary economic and social impacts, especially for vessels with limited ability to

fish for other species. The MMC agreed it would not recommend the no-action alternative that allows the default measures to take effect. The MMC also agreed at its September 2001 meeting that it had little basis on which to develop adjustments to the current plan. Results from the most recent stock assessment (SAW 31) were insufficient to provide a technical basis for designing new measures or re-estimating TACs. The group felt that the TACs in the FMP for FY2002 are inadequate measures of fishery performance relative to the management objectives.

A new assessment (SAW 34) was presented in January, 2002, incorporating data from an industry-based goosefish survey conducted by NMFS using commercial vessels. This survey provided a wealth of new information and allowed a more complete assessment of the monkfish resource than had been previously possible. Since the assessment information was not available during the development of this framework, the MMC had no basis for recommending action to change the plan when the new information could require another adjustment (either up or down) within a few months. The Councils, however, considered the new information, not only from SAW 34 but also 2001 autumn survey data and calculations of FY2000 exploitation rates, prior to making their final decision on this framework.

SAW 34 investigated several methods for assessing stock status and provided suggestions for improved biological reference points based on yield per recruit analyses. The SARC recommended that $F_{\text{threshold}}$ be set at $F_{\text{max}}=0.2$, and F_{target} be set at $F_{0.1}=0.14$. The SAW did not conduct any short-term projections that would serve as a basis for setting TACs under the recommended $F_{\text{threshold}}$; however the assessment provided estimates of exploitable biomass during 2000 under a range of assumptions concerning net efficiency and effective tow distance in the industry-based survey. These resulted in a range of F estimates for calendar year 2000 (Table 2), depending on the method of calculation of F (using landings and exploitable biomass or landings plus discard and total biomass) and assumptions regarding tow distance and relative net efficiency.

The estimates of F are between 0.10 and 0.38 when considering the full range of assumptions regarding net efficiency. For the intermediate efficiency assumption, the estimate range is 0.18-0.32. Overall, 61% of the F estimates from the cooperative survey are ≤ 0.20 , and for the intermediate assumption, 33% of estimates are ≤ 0.20 .

These F estimates are for calendar year 2000, which included only 7 months of the FMP Year 2 restrictions (effective May 2000) on monkfish DAS, trip limits and minimum landing size in the SFMA. During 1998 and 1999, 30-37% of the annual landings from the SFMA were made during the period Jan-April, thus to the extent that landings reflect effort, roughly a third of annual effort probably was expended in 2000 before DAS, trip limits and size restrictions were implemented. This suggests that even without further restrictions, fishing mortality estimates for calendar year 2001 will be lower than F for calendar year 2000 since the Years 2 and 3 restrictions were in force for all of 2001.

In addition to the fact that many of the calendar year 2000 F estimates are less than or equal to $F=0.20$, preliminary data from the NMFS fall survey for 2001 further supports the Councils' preferred alternative. These data, which were not available prior to the

MMC report and initial Council meeting on this framework and are still preliminary, show positive results for both management areas. In both stock areas, the reference points used to determine whether the stock is overfished is based on the three year running average of NMFS/NEFSC resource survey indices. In the SFMA, although the 3-year running average of the index remains below the threshold, the 2001 index rose for the third consecutive year, to the highest level since 1986 (to 0.708 kg/tow). In the NFMA, while the 2001 index fell from the prior year, the 3-year average (1.79 kg/tow) moved above the threshold (1.46 kg/tow), indicating that the northern stock is no longer overfished. These new trawl survey data, while supportive of the Council's recommendation, should be interpreted cautiously until they can be analyzed in the context of a stock assessment.

A. Using landings and exploitable biomass, biomass from inclinometer distances for all nets.

Management Area	High efficiency		Intermediate Efficiency		Low Efficiency	
	Exploitation ratio	F	Exploitation ratio	F	Exploitation ratio	F
North	0.26	0.30	0.20	0.22	0.13	0.14
South	0.32	0.38	0.27	0.32	0.22	0.25
Combined	0.29	0.34	0.23	0.26	0.16	0.18

B. Using landings and exploitable biomass, biomass from nominal distances for Mary K.

Management Area	Exploitation		Exploitation		Exploitation	
	ratio	F	ratio	F	ratio	F
North	0.26	0.30	0.20	0.22	0.13	0.14
South	0.27	0.32	0.23	0.26	0.19	0.17
Combined	0.27	0.32	0.22	0.25	0.15	0.16

C. Using catch and total biomass, biomass from inclinometer distances for all nets.

Management Area	Exploitation		Exploitation		Exploitation	
	ratio	F	ratio	F	ratio	F
North	0.20	0.22	0.16	0.18	0.10	0.10
South	0.25	0.28	0.21	0.24	0.17	0.18
Combined	0.22	0.13	0.18	0.20	0.13	0.14

D. Using catch and total biomass, biomass from nominal distances for Mary K

Management Area	Exploitation		Exploitation		Exploitation	
	ratio	F	ratio	F	ratio	F
North	0.20	0.22	0.16	0.18	0.10	0.10
South	0.21	0.24	0.18	0.20	0.14	0.15
Combined	0.21	0.24	0.17	0.18	0.12	0.13

Table 2 Exploitation ratios and associated estimates of fishing mortality for calendar year 2000 under various assumptions of net efficiency and areas swept for FV Mary K (from SAW 34).

3.1.3.2 Rationale for preferred management measures

Three combinations of DAS and trip limits were considered that would achieve the same landings as FY2000. The Committee and Councils considered the analysis results and public comments in selecting the proposed measures to achieve the preferred alternative TAC. Comments from processing and harvesting sectors favored a longer season (higher DAS) with lower trip limits over higher trip limits in conjunction with fewer DAS. A lower DAS allocation would reduce vessel flexibility and fishing opportunity, and would cause a redirection of effort by many vessels into multispecies fisheries, many of which are overfished and cannot absorb additional effort displaced out of the monkfish fishery. Several people commented that a lower trip limit would reduce price volatility and return the greatest value from the limited available harvest. Some gillnet fishermen also noted that at a lower trip limit, they would set out less gear. There have been some reports of gear conflict problems that the Council felt are related to the amount of gillnet gear being set under the higher trip limit allowed since the court decision, even though the amount of gear is within the allowable net limit.

After finalizing a recommendation to the Councils, the Committee also received a strongly negative comment from a representative of the offshore trawl fishery. This comment was that at the lower trip limit, offshore trawl vessels could not profitably operate, and would no longer be able to participate in the fishery. The Committee discussed additional measures that might be able to address this situation, but did not come up with a solution that was workable within the framework options available.

3.2 No-action alternative

The FMP contains pre-programmed management measures and TACs for Year 4 that would eliminate the directed fishery as the final step in the four-year effort reduction program designed to rebuild monkfish stocks to biomass targets in 2009.

3.2.1 No-action (status quo) OY and Management Area TACs alternative

This alternative reflects the Year 4 default management program in the original FMP, which would eliminate the directed monkfish fishery. The TACs in the following table were calculated in the original FMP in 1997.

NFMA	SFMA	TOTAL (OY)
4,047 mt	3,252 mt	7,299 mt

Table 3 No-action alternative for specification of OY and Management Area TACs for Year 4

3.2.2 No-action (status quo) management measures

This alternative would not require the Councils to take any action since the FMP and its implementing regulations already include the default measures for Year 4, calculated to achieve the TACs described in Section 3.2.1 above. All of the management measures in

the current program would remain unchanged from Years 2 and 3 except for the DAS, which are eliminated, and the incidental catch trip limits, which are more restrictive. Since there are no directed (DAS) trip limits, the Court Order eliminating gear-based differential trip limits has no effect.

Table 4 and Table 5 show the monkfish trip limits by permit category for vessels fishing on a DAS or not on a DAS, respectively, with the Year 4 trip limits highlighted. Figure 3 is a flowchart showing the process by which a vessel can determine which of the five trip limits apply to that vessel in Year 4. These measures would be the no-action alternative for the annual adjustment.

Effective Date	Permit Category	DAS Program	Area	Gear*	Trip Limit per DAS**
Prior to May 1, 2002	A & B, and C & D with LA*** scallop	Monkfish	NFMA	All Gear	No trip limit
Prior to May 1, 2000	A, B, C, D	Monkfish	SFMA	All Gear	No trip limit
May 1, 2000	A or C	Monkfish	SFMA	Trawl	1,500 lb of tail-weight
May 1, 2000	B or D	Monkfish	SFMA	Trawl	1,000 lb of tail-weight
May 1, 2000	A, B, C, D	Monkfish	SFMA	Non-Trawl	300 lb tail-weight
Prior to May 1, 2002	C and D	<u>Multispecies</u>	NFMA	All Gear	No trip limit
May 1, 2002	C and D	<u>Multispecies</u>	NFMA	All Gear	300 lb tail-weight, or 25% of total weight of fish on board, whichever is less
Prior to May 1, 2002	C and D	<u>Multispecies</u>	SFMA	Trawl	300 lb tail-weight
May 1, 2002	C and D	<u>Multispecies</u>	SFMA	Trawl	300 lb tail-weight, or 25% of total weight of fish on board, whichever is less
Prior to May 1, 2002	C and D	<u>Multispecies</u>	SFMA	Non-Trawl	50 lb tail-weight
May 1, 2002	C and D	<u>Multispecies</u>	SFMA	Non-Trawl	50 lb tail-weight, or 25% of total weight of fish on board, whichever is less
Prior to May 1, 2002	C and D	Scallop	SFMA and NFMA	Dredge or net exemption	300 lb tail-weight
May 1, 2002	C and D	Scallop	SFMA and NFMA	Dredge or net exemption	200 lb tail-weight

*Dredge gear is prohibited when fishing under a monkfish or multispecies DAS

**Or the whole-weight equivalent (tail weight x 3.32)

***LA = Limited access

Table 4 Monkfish trip limits for limited access vessels when fishing under a DAS. Year 4 default measures are shaded. Open Access (Category E) vessels fishing under a Multispecies or Scallop DAS have the same trip limits as the corresponding Limited Access vessels in Year 4.

Effective Date	Permit Category	Gear	Trip Limit*
November 8, 1999	A, B, C or D	Large Mesh (minimum regulated multispecies mesh size)	Up to 5% (whole or tail) of total weight of fish on board/trip
November 8, 1999	A, B, C or D	Small Mesh (Less than regulated multispecies mesh size)	50 lb/trip
November 8, 1999	A, B, C or D vessels that are <30 feet	All Gear	50 lb/trip

Table 5 Monkfish trip limits for vessels (all permit categories) not fishing under a Scallop or Multispecies DAS.

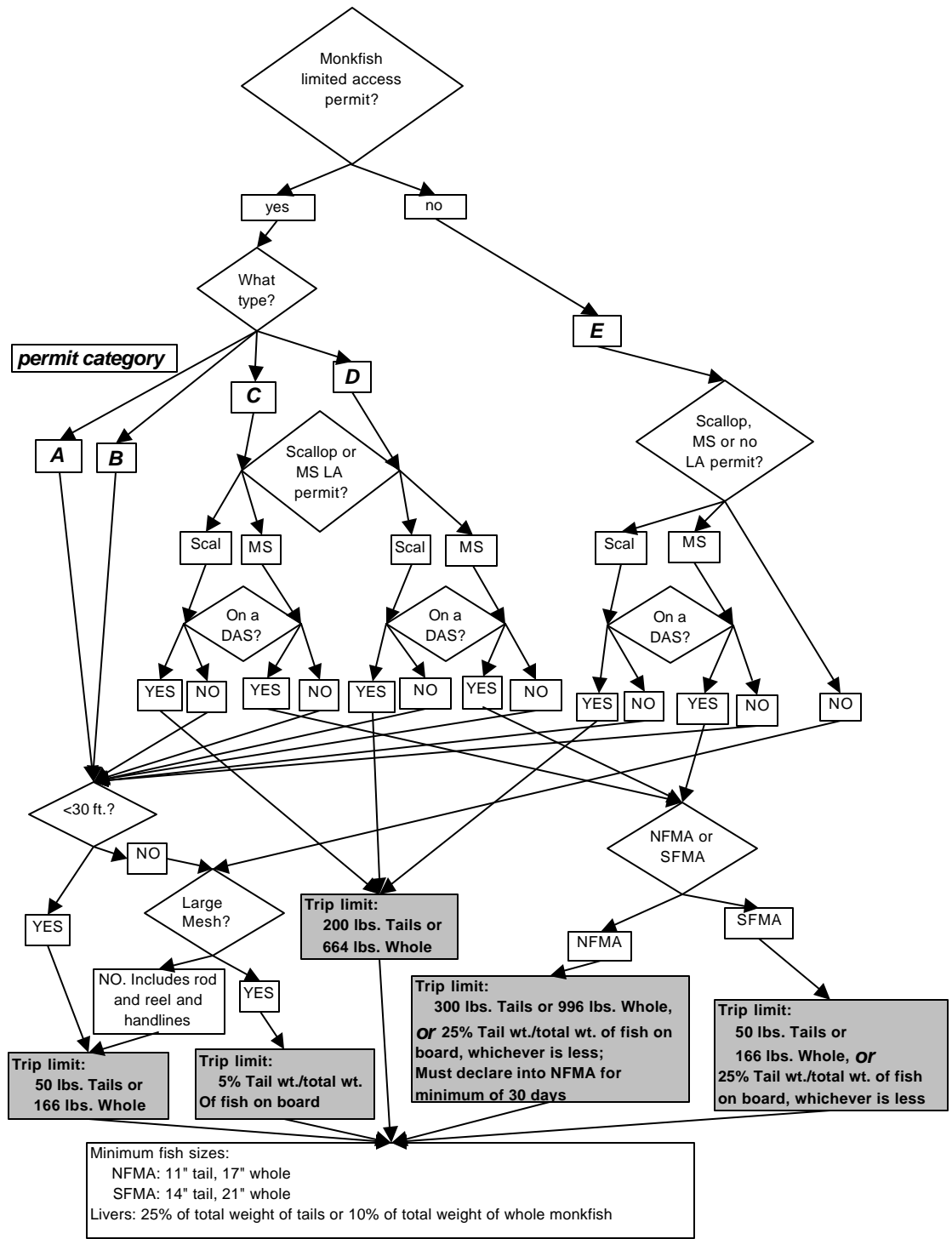


Figure 3 Flowchart showing Year 4 monkfish trip limits, the no-action alternative.

3.3 Alternatives considered but not adopted at the final framework meeting

3.3.1 Alternative OY and Management Area TACs

The Councils considered using the Year 2 and 3 specification of OY and management area TACs as an alternative to the no-action and preferred alternatives described above. This alternative would extend the current TACs for one additional year. These TACs were calculated in the original FMP (in 1997) to achieve fishing mortality targets of $F=0.07$ (NFMA) and $F=0.26$ (SFMA). This alternative would require implementation of additional restrictions in both areas, as described in the alternatives in Section 3.3.2.2 below.

NFMA	SFMA	TOTAL (OY)
5,673 mt	6,024 mt	11,697 mt

Table 6 OY and Management Area TACs alternative based on Year 2 and 3 specification in original FMP.

The Councils did not adopt this alternative based on the scientific invalidity of the fishing mortality reference points used to calculate the TACs, as noted in the justification and rationale for adopting the preferred alternative discussed in Section 3.1.3.

3.3.2 Alternative management measures

This section describes the management alternatives considered but not adopted by the Councils for this framework.

3.3.2.1 Adjust trip limits and DAS to achieve preferred alternative TACs

The Councils considered the following alternatives in the context of the preferred alternative OY and management area TACs discussed in Section 3.1.1.

3.3.2.1.1 NFMA Options

The Councils considered two options for the NFMA to achieve the same landings as in FY2000. These options are discussed in Appendix II as Options 1a and 1b. Since vessels fishing in the NFMA under a multispecies DAS do not have a monkfish trip limit, a trip limit that would duplicate FY2000 landings would be equivalent to the trip limit in effect in FY2000, that is, no trip limit. The analysis was designed to estimate a trip limit for directed trips (where monkfish is more than 50 percent of the total landings) while constraining non-directed trips to either 50 percent (Scenario 1a) or 25 percent (Scenario 1b) of the total catch.

Since no reduction in total catch is the objective, no trip limit is necessary to constrain catches in the analysis. Therefore, there is no basis for limiting catches of non-directed trips under either Scenario 1a (limiting non-directed trips to 50 percent of total catch) or Scenario 1b (limiting non-directed trips to 25 percent of total catch).

3.3.2.1.2 SFMA Options

The Councils considered three options to achieve the preferred alternative TAC for the SFMA, identified as Scenarios 3a, 3c and 3d in Appendix II. As noted above, the Councils recommend Scenario 3a.

The analysis of these options was based on the fishing patterns in FY2000. At the Monkfish Committee's request, an analysis was also conducted using the FY1999 fishing patterns, to use catch data from an unconstrained fishery (there were no trip limits and DAS in 1999) to predict catches under the proposed limits, particularly where the limits are higher than were in place in FY2000. (The Federal court decision required that trip limits for non-trawl and trawl vessels be consistent, resulting in increased trip limits for non-trawl vessels under some of the analyzed scenarios.)

Scenarios 3b, 3d and 3e in Appendix II are based on 1999 catch data. However, since the proportion of 1999 landings by vessels that either did not get a limited access permit in 2000 or used a dredge was so high, the amount of monkfish available in the analysis to the limited access vessels was smaller than when FY2000 data were used, even though total FY1999 landings were nearly double those in FY2000. Therefore, after removing dredge and landings for vessels that did not get a limited access permit, the pool of landings available in the analysis to limited entry vessels was relatively low (compared to FY2000 landings) so when those available landings are distributed to the individual permit holders, the trip limit is proportionally lower. The SFMA management alternatives considered by the Councils to achieve the recommended TAC are as follows:

Scenario 3a (recommended by the Council, see 3.1.2.2). Vessels fishing in the SFMA will be allocated 40 monkfish DAS. Vessels in Categories A and C will have a trip limit of 544 lbs. (tail weight, per DAS), while vessels in Categories B and D will have a trip limit of 457 lbs. (tail weight, per DAS).

Scenario 3c. For vessels fishing in the SFMA, vessels in Categories A and C will retain the current trip limit of 1,500 lbs. (tail weight, per DAS) with an allocation of 14 monkfish DAS, while vessels in Categories B and D will retain the current trip limit of 1,000 lbs. (tail weight, per DAS) with an allocation of 19 DAS.

Scenario 3e. For vessels fishing in the SFMA, vessels in Categories A and C will have a trip limit of 1,000 lbs. (tail weight, per DAS) with an allocation of 17 monkfish DAS, while vessels in Categories B and D will have a trip limit of 700 lbs. (tail weight, per DAS) with an allocation of 23 DAS.

As noted in the discussion of rationale for the preferred alternative, the Councils considered public comments in selecting one of the three alternatives. Comments from processing and harvesting sectors favored a longer season (higher DAS) at a lower trip limit than a higher trip limit with fewer DAS. A lower DAS allocation would reduce flexibility and opportunity, and would cause a redirection of effort by many vessels into multispecies fisheries, many of which are overfished and cannot absorb additional effort displaced out of the monkfish fishery. Several people commented that a lower trip limit

would reduce price volatility and return the greatest value from the limited available harvest. Some gillnet fishermen also noted that at a lower trip limit, they would set out less gear. There have been reports of problems with the excessive amount of gillnet gear being set under the higher trip limit allowed since the court decision, even though it is within the allowable net limit.

3.3.2.2 Adjust trip limits and DAS to achieve Year 2 and 3 TACs

The alternatives discussed in this section pertain to the OY and Management Area TACs described in Section 3.3.1 above. These options incorporate the court order pertaining to gear-based trip limits discussed earlier. Since the Councils adopted the preferred alternative OY option, they effectively eliminated these management alternatives from consideration. The alternatives discussed below are based on the analysis contained in Appendix II.

3.3.2.2.1 NFMA trip limit options

The Councils considered two options to achieve the Year 2 and 3 TACs for the NFMA, identified as Scenarios 2a and 2b in Appendix II.

Scenario 2a. Vessels fishing in the NFMA may retain monkfish (tail weight) up to 50 percent of the total weight of fish on board, or for permit category A and C, 282 lbs. (tail weight, per DAS) and for permit category B and D, 272 lbs. (tail weight, per DAS), whichever is greater.

Scenario 2b. Vessels fishing in the NFMA may retain monkfish (tail weight) up to 25 percent of the total weight of fish on board, or for permit category A and C, 446 lbs. (tail weight, per DAS) and for permit category B and D, 387 lbs. (tail weight, per DAS), whichever is greater.

3.3.2.2.2 SFMA trip limit options

The Councils considered three options to achieve the Year 2 and 3 TACs for the SFMA, identified as Scenarios 4a, 4c and 4d in Appendix II. The analysis of these options was based on the fishing patterns in FY2000. At the Monkfish Committee's request, an analysis was also conducted using the FY1999 fishing patterns, to use catch data from an unconstrained fishery (there were no trip limits and DAS in 1999) to predict catches under the proposed limits, particularly where the limits are higher than were in place in FY2000. (The Federal court decision required that trip limits for non-trawl and trawl vessels be consistent, resulting in increased trip limits for non-trawl vessels under some of the analyzed scenarios.)

Scenarios 4b, 4d and 4e in Appendix II are based on 1999 catch data. However, as noted in Section 3.1.2.2, since the proportion of 1999 landings by vessels that either did not get a limited access permit in 2000 or used a dredge was so high, the amount of monkfish available in the analysis to the limited access vessels was smaller than when FY2000 data were used, even though total FY1999 landings were nearly double those in FY2000. Therefore, after removing dredge and landings for vessels that did not get a limited access permit, the pool of landings available in the analysis to limited entry vessels was

relatively low (compared to FY2000 landings) so when those available landings are distributed to the individual permit holders, the trip limit is proportionally lower.

Scenario 4a. Vessels fishing in the SFMA will be allocated 40 monkfish DAS. Vessels in Categories A and C will have a trip limit of 309 lbs. (tail weight, per DAS), while vessels in Categories B and D will have a trip limit of 267 lbs. (tail weight, per DAS).

Scenario 4c. For vessels fishing in the SFMA, vessels in Categories A and C will retain the current trip limit of 1,500 lbs. (tail weight, per DAS) with an allocation of 10 monkfish DAS, while vessels in Categories B and D will retain the current trip limit of 1,000 lbs. (tail weight, per DAS) with an allocation of 13 DAS.

Scenario 4e. For vessels fishing in the SFMA, vessels in Categories A and C will have a trip limit of 900 lbs. (tail weight, per DAS) with an allocation of 14 monkfish DAS, while vessels in Categories B and D will have a trip limit of 600 lbs. (tail weight, per DAS) with an allocation of 19 DAS.

3.3.2.3 Count DAS as 24-hour days

This alternative would modify the counting of monkfish DAS. DAS would be counted as 24-hour days for all vessels, and the DAS allocations would be adjusted to achieve the goals with permit-category trip limits of 1,500 and 1,000 pounds (eliminating differential gear-based trip limits). **Discussion:** Since Scallop and Multispecies DAS are integrated into the Monkfish DAS program through simultaneous usage requirements for Category C and D vessels, this option would require an adjustment to those FMPs to keep the DAS counting system consistent across the plans. This option would also require additional resources to administer the DAS call-in system, particularly for prompt, programming and text elements. Thus, this option would further complicate an already complicated DAS call-in system.

3.3.2.4 Individual vessel quotas

Under this option, a vessel would be allowed to land monkfish equal to the trip limit times the 40 DAS allocated, even if it used less DAS to land the total allotment. **Discussion:** While this alternative would promote efficiency, it would essentially result in an individual allocation of a portion of the TAC. Because DAS usage rates are relatively low (about 50 percent for all call in vessels, and about 17 percent for all vessels with DAS allocations), the total allotment to each vessel would be substantially below the amount of the current trip limit times 40 DAS. Furthermore, to monitor this program, NMFS would have to “connect” the systems monitoring landings with that tracking DAS usage, adding to the administrative cost of the FMP. This program would be best accomplished with a real-time system such as that used in the scallop area access programs. Any new reporting requirements under this proposal would trigger Paperwork Reduction Act (PRA) clearance. Dockside enforcement costs would increase because of the need to monitor landings closely to determine the number of DAS remaining for each vessel.

3.4 Alternatives considered and rejected prior to the final meeting

The alternatives discussed below were identified by the Monkfish Committee and Councils but rejected for final consideration in this framework. The Councils may consider these alternatives in Amendment 2 now under development.

3.4.1 Provide justification for original trip limits based on gear type

This option, to provide justification for the original trip limits based on gear type, is in response to the changes to the trip limit resulting from the Federal Court Order eliminating differential gear-based trip limits. This option would require the development of new rationale for gear-based differential trip limits. The Federal court has already found that the rationale contained in the FMP and its administrative record is insufficient to support the gear differential, and that it was, therefore, in violation of National Standards 2 (best available scientific information), 4 (fair and equitable) and 5 (economic efficiency and allocation). Depending on the Council's decision regarding OY, the specific trip limits under this option would either be at pre-decision levels (under the preferred alternative), or at some proportional reduction (under the OY option described in Section 3.3.1). Since OY the option described in 3.2.1 (no action) is based on elimination of the directed fishery (i.e., zero DAS), the gear-based trip limit differential is also eliminated and would not have to be justified.

3.4.2 Increase the minimum fish size

The Monkfish Committee and Council eliminated this option, to increase the minimum size, from consideration in this framework because the required analysis could not be completed in time, and because the analysis depends on information coming out of the upcoming stock assessment.

3.4.3 Inshore/offshore line with differential trip limits

With this option, the Committee proposed to draw an inshore/offshore line in the SFMA with different trip limits in each area. This option would add another layer of complexity to the regulations by increasing the number of different trip limits and overlaying another set of management boundaries. Enforcement would be more difficult than single-area trip limits because of the need to determine catch locations, and to provide accommodation for transiting and interactions with other fisheries and area management programs. Without a declaration certificate program, this option is less enforceable than the current system, or the following option. For the reasons discussed above, the Council rejected this option for consideration in this framework.

3.4.4 Inshore/offshore line with differential trip limits and a declaration requirement

The Committee proposed an option that would draw an inshore/offshore line in the SFMA with different trip limits in each area and a declaration program (similar to the GOM cod exemption) for vessels fishing in the offshore area. While a declaration certificate program would improve enforceability, enforcement difficulties arise with the need to determine catch locations, establishing transiting provisions, interactions with other fisheries and area management systems, and the monitoring of certificate compliance. If a declaration program were incorporated into this option, PRA clearance

would be required. Administrative costs would increase for developing and issuing certificates, processing applications and monitoring participation. This option would add to the complexity of the current management program by increasing the number of different vessel categories under different rules. For the reasons discussed above, the Council rejected this option for consideration in this framework.

3.4.5 SFMA fishery categorization with different trip limits

This option would categorize vessels fishing in the SFMA into three groups (inshore only, inshore/offshore, and deepwater/canyon) and calculate appropriate trip limits or other measures for each group to achieve the total catch goals. This option significantly complicates the already complicated FMP by adding trip limit categories and management areas. Enforcement difficulties and administrative costs would increase substantially. While a declaration certificate program would improve enforceability, enforcement difficulties arise with the need to determine catch locations, establishing transiting provisions, interactions with other fisheries and area management systems, and the monitoring of certificate compliance. Administrative costs would increase for developing and issuing permits or certificates, processing applications and monitoring participation. PRA clearance would be necessary for the new permit/certification programs. This option would probably require an apportionment of the SFMA TAC into three parts so that trip limits for each group could be calculated. For the reasons discussed above, the Council rejected this option for consideration in this framework.

3.4.6 Spawning time/area closures

This option would establish time/area closures or blocks of time out during spawning periods. The Monkfish Committee and Council eliminated the option from consideration in this framework because the required analysis could not be completed in time. In addition, the analysis depends on information coming out of the upcoming stock assessment and/or some future research project that would identify spawning times and areas with a level of precision necessary to effectively use the information for management purposes.

4.0 Affected Environment

A description of the environment affected by this action is described in detail in Section 6.0 of the Monkfish FMP prepared in 1998 . Updated information is included in the appendices to this document. Section 2.1 of the 2000 SAFE Report contains updated biological information, including the results of the 31st Stock Assessment Workshop (SAW 31, terminal year 1999) and updated catch and survey data through Spring 2001. Section 2.2 of the SAFE Report describes the economic and social aspects of the monkfish fishery, including a discussion of trends in landings and revenues, activity of vessels by permit and size class (including DAS usage patterns), and vessel and port dependence on monkfish. The 2000 fishing year was the first full year under the FMP and several changes in the economics of the fishery are notable in that discussion. Appendix III contains updated summary statistics for communities dependent upon monkfish, including data on the homeports of monkfish vessels, and the dependency of various types of vessels upon revenue from monkfish. Appendix III also contains a supplement to the analysis of impacts on small business entities that is contained in the regulatory

flexibility analysis for the original FMP (1998). Readers are urged to read the appendices for detailed information, but some summary information is provided below.

Biological Environment: Monkfish is widely distributed from the Gulf of St. Lawrence south to Cape Hatteras, North Carolina. The distribution of the species has been referred to as ubiquitous, with the species found in all water depths. While the distribution of the species varies somewhat by season, there is no clearly described seasonal movement. There are two stock areas for monkfish (resulting in the NFMA and SFMA designations) based on differences in recruitment patterns in the two areas. There is a directed fishery for monkfish. In addition, as a result of the broad distribution of the species, it is also often caught incidental to fishing operations that are targeting other species.

Human Environment: Prior to the implementation of the FMP in 1999, there were no permit requirements relating to the harvest of monkfish. At that time approximately 30% of the landings came from directed fishing by vessels using trawls, scallop dredges and gillnets. The rest of the landings were caught incidentally on fishing trips directed on multispecies or sea scallops. The FMP established a limited entry program, with vessels required to demonstrate specified levels of historic landings to qualify for permits to participate in the directed fishery. As of March 13, 2002, there are 704 vessels that hold active limited access monkfish permits. An additional 34 vessel owners have limited access monkfish permit eligibilities, but do not currently own fishing vessels (so-called Confirmations of Permit History). Of the total 738 vessels, approximately 160 vessels declared their intent to fish in the NFMA for 30 days or longer during the 2001 fishing year (May 1, 2001, to April 30, 2002). The SAFE Report in Appendix I provides extensive information about the participants in the fishery.

Landings in FY2000 peaked during the October-December period, when Asian demand for monkfish livers and European demand for monkfish are customarily at their highest. Table 4 of the SAFE Report indicates that in FY2000 monkfish was predominantly caught by trawl gear in the NFMA (73%), with the rest caught by gillnet gear (25%) and dredge gear (3%). Table 4 indicates that in the SFMA, monkfish were caught fairly equally by trawl gear (43%) and gillnet gear (39%), with the remainder caught by dredge gear (18%).

While monkfish are landed in all states from Maine to North Carolina, Table 6 shows that vessels homeported in some states are responsible for a large share of the landings. From 1995-99, Massachusetts vessels dominated the fishery, followed in descending order by vessels with homeports in Rhode Island, New Jersey and Maine. In FY2000, Massachusetts and New Jersey vessels made landings at approximately the same level as in the past, while landings by vessels from Rhode Island decreased by 43%. Landings by vessels from Maine and North Carolina increased in FY2000 by 64% and 600%, respectively, from their landings during the 1995-99 period. The primary monkfish ports (defined as those averaging more than \$1 million in monkfish revenues from 1994-97) are Portland, ME; Boston, Gloucester and New Bedford, MA; Long Beach/Barnegat Light, NJ; and Point Judith, RI.

5.0 Environmental Consequences

The analysis of impacts in this section is based on information about the affected environment contained in the EIS for the FMP, the SAFE Report for 2000 (Appendix I), updated community information (Appendix III), and landings and effort data compiled specifically for this analysis as described in Appendix II.

5.1 Biological impacts

SAW 34 provided a range of estimates of fishing mortality for calendar year 2000. Calendar year estimates only include seven months of the effect FY2000 management measures since the fishing year started in May (imposing DAS and trip limit restrictions). Overall 61 percent of the F estimates are ≤ 0.2 , and for the intermediate assumption about survey trawl efficiency, 33 percent of the estimates are ≤ 0.2 . A relative exploitation index based on fishing year (FY) landings and the fall survey index showed dramatic declines from FY1999 to FY2000. Seasonal landings patterns suggest that even without further restrictions, fishing mortality for calendar year 2001 was lower than for calendar year 2000. In light of this information, maintaining landings at the level recommended in the preferred alternative (the Year 2 level) is expected to end overfishing, as specified in the FMP.

Projections of stock rebuilding under various management scenarios are not possible at this time given the technical limitations of the stock assessment. Based on the conclusions of the MMC, the stock declines of the previous decade appear to have been halted or reversed. In the SFMA, although the 3-year running average of the survey abundance index remains below the FMP threshold level, the 2001 index rose for the third consecutive year to the highest level since 1986. In the NFMA, the 3-year average moved above the threshold in 2001, indicating that the northern stock is no longer overfished.

It might appear that either the no action alternative or the non-preferred alternative could reduce nominal effort and, therefore, accelerate stock rebuilding. However, it is likely that under either of those alternatives the overall reductions in mortality would be offset by increased discard mortality of monkfish caught incidental to other fishing activities. This would negatively impact any expected stock rebuilding. Since this framework is only designed to be in effect for one year, the biological impact of any of the three alternatives is not likely to be significant since all alternatives under consideration constrain effort to current levels or lower. The Council will address the long-term rebuilding program in Amendment 2 currently in development and scheduled for implementation by the start of the 2003 fishing year.

5.2 Economic impacts

The following economic analysis is done for vessels that held a valid monkfish permit in FY2000 and that participated in the monkfish fishery. Due to time limitations, four scenarios are analyzed (in addition to the no action alternative), representing two from each of the preferred and non-preferred OY options. The trip limit model estimates 1) net returns for the no-action alternative (Year 4 default measures), and 2) net returns for FY2000 as if all vessels were operating under the court-ordered trip limits. The model

does not account for changes in monkfish DAS. With this limitation the model will tend to underestimate the impacts of DAS reductions; a factor that may be more severe for category A and B permit holders since they will not have multispecies or scallop DAS to fall back on. In general, options containing higher DAS allocations with similar trip limits may be assumed to be less burdensome than options with lower DAS allocations even though the estimated impacts (model results) will be similar.

The baseline is simulated in each case for fishing years 1998, 1999, and 2000. Therefore, the number of observations for each cell does not represent unique vessels. This three-year period was used for several reasons. First, gillnets were constrained in FY2002 in some scenarios to levels below their current allowable limit and below any of the proposed limits, and in some cases to levels above FY2000 levels. Using pre-FMP data allowed the model to use a time period when they were unconstrained, allowing for some prediction of vessel behavior under a range of trip limits. And second, using three years accounts for inter-annual variability in the analysis of activity at the vessel level. At an industry-level analysis there tends to be much less inter-annual variability in activity.

The model calculated the percent reduction in net income (that is, gross revenues less operating costs), summarized by permit category (categories A and B were combined due to small sample size), vessel length, homeport state (as reported in FY2000 permit application), and gear (defined as gear used for majority of monkfish income). These results are reported at the 10th, 25th, 50th, 75th, and 90th percentile in ranking of the relative reduction in total net income (from all species). The percentiles of the distribution of impacts are reported to reflect the fact that economic impacts tend to be skewed (sometimes greatly so) such that reported averages or similar measures of central tendency may not adequately reflect the full range of potential effects.

In the following tables and discussion, the percentages in each cell represent loss in net income (from all fishing), and a zero in any cell equates to full restoration of net income to FY2000 levels for that percentile of the observations. Full restoration of net income could be due to the way the specific alternative being analyzed affects the vessels relative to the no action alternative, or it could be because some vessels are not affected by the Year 4 defaults. If vessels are not impacted by the Year 4 defaults, observations would appear as zeros since even under the no action alternative, since there is no loss of net income to that percentile of vessels.

To illustrate this please refer to Table 7, Permit Categories section, A and B row, which shows 100 percent (loss of net income) in the 10th percentile (10 percent of vessels), and zero percent in the 90th percentile column. This means that while 10 percent of Category A and B vessels would lose 100 percent of their net income from fishing under the no action alternative, 10 percent would see zero reduction because their landings are (in FY2000) at or below the incidental catch levels of the default measures. Compared to other permit categories, category A and B vessels would be the most impacted by the no action alternative. Conversely, category C vessels would be the least impacted limited access permit category, with an estimated 25.8-percent reduction or greater for 10 percent of the vessels in this category. Category E vessels would be the least impacted overall,

with an estimated reduction of 0.7 percent or greater for 10 percent of these vessels, due to the fact landings for most of these vessels are at or below the default measures.

In addition to the example provided above, the results in Table 7 for the no action alternative could be interpreted as follows. Under the breakdown by vessel length, if implemented, the no action alternative would result in an estimated 54.6-percent reduction or greater for 10 percent of vessels less than 50 feet in length. Note that this estimated loss may be biased upward (show a greater loss than would actually be realized) since the trip limit model accounts for some changes in observed trips but does not account for substitution of different trips to mitigate losses in monkfish income. The model also does not account for potential resource changes that may result in improvements in productivity. As noted, the model also does not take into account the changes in monkfish DAS. The impact on larger vessels would be significantly less, with only ten percent of the vessels over 90 feet seeing a reduction of 1.6 percent or greater.

When homeport states are examined, the no action alternative would have the greatest impact on vessels in New Jersey and Delaware (combined), with 10 percent of the vessels having a reduction of 72 percent or more in net income. Least affected homeport states would be Virginia and Maryland (combined) and North Carolina where fewer than ten percent or less of the vessels would see any reduction at all (zero percent or greater).

When viewed by gear type, gillnet vessels would be most negatively impacted by the no action alternative. Ten percent of gillnet vessels would experience a reduction in net income of 75.3 percent or more. However, 25 percent of gillnet vessels would have a reduction of 8.5 percent or more, and half of the vessels would not be impacted. Fewer than ten percent of dredge and hook vessels would be affected by the default measures, while 10 percent of trawl vessels (that hold a monkfish limited access permit and landed monkfish) would have a reduction in income of 9.5 percent or more.

Relative to the no action alternative, taking action under either the preferred or non-preferred alternatives would have rather obvious beneficial effects on small vessels, vessels having permit categories A or B, vessels with homeports of NJ, MA, and NH, and would benefit vessels using gillnet gear relatively more than other gear types. Note that the latter is related to the fact that many of the most affected vessels in the permit categories and states previously listed also happen to use gillnet gear. Also note that these results correspond to the types of vessels that were indicated in the EIS analysis done for the FMP to be most the significantly affected vessels.

While all alternatives would represent improvements over the no action alternative, some would "restore" net income to FY2000 levels to a greater degree than others. For example, Table 8 shows that under Scenario 1 (trip limit scenario 2a and 4a, non-preferred OY alternatives for the NFMA and SFMA, respectively), 10 percent of vessels less than 50 feet would see a reduction of 12.4 percent or greater (compared to 54.6 percent under the no action alternative), and the remaining 90 percent would experience a reduction of less than 12.4 percent relative to FY2000 levels. Seventy five percent of the vessels would have more than 99 percent of their income restored (a reduction of less

than 0.4 percent), while the remaining 25 percent would have losses of 0.4 percent or more.

The information presented in Table 8 also shows that for category A and B vessels, 50 percent would experience a reduction of 9.9 percent or greater relative to FY2000 (and 50 percent would have less than a 9.9-percent reduction in net income). At the 10th percentile, vessels would have their income fully restored to FY2000 levels (zero percent or greater reduction). The zero in this column is due to the effect of the alternative (that is, Scenario 1 would restore 100 percent of FY2000 income for these vessels compared to the no action alternative, so the net effect is 0 percent). At the other end of the spectrum, that is, at the 90th percentile, vessels would also have no change in their FY2000 income. This effect is attributable to the fact that, as demonstrated above, 10 percent of A and B vessels will not be impacted by the no action alternative. In other words, under Scenario 1, half of the A and B vessels will experience a reduction of 9.9 percent or greater from FY2000 levels, 10 percent of the vessels will have their income fully restored, and 10 percent of the vessels do not experience a reduction under either Scenario 1 or the no action alternative.

Proposed action: In comparison, Table 10 shows that under the proposed action, (Scenario 3, trip limit scenario 1 and 3a, preferred OY alternatives for the NFMA and SFMA, respectively), 90 percent of vessels less than 50 feet would have their incomes restored, and the remaining 10 percent would experience a 3.4-percent or greater reduction from FY2000 levels. The information in Table 10 shows that 25 percent of permit Category A and B vessels will have all income restored, while 10 percent of Category C vessels will have a 0.8-percent or greater reduction and 10 percent of Category D vessels will have a reduction of 2.9 percent or more. Ten percent of vessels homeported in NJ and DE (combined) will have a 2.1 percent reduction in income, and 10 percent of RI vessels will have a 1.5-percent or greater loss in income.

Scenario 4 (Table 11, preferred alternative TAC, management measures 1 and 3c, not adopted by the Councils), was analyzed under the assumption that the TACs are the same as the FY2000 landings, and the FY2000 trip limits for trawl vessels (1,500 lbs. and 1,000 lbs.) are applied to both trawl and non-trawl sectors. Under Scenario 4, all vessels would have their incomes restored. As stated previously, it is important to note that while DAS would be reduced under this option, the reduction is not reflected in the model results.

Length	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
< 50 (n = 1268)	-54.6%	-3.8%	0.0%	0.0%	0.0%
50 to < 70 (n = 833)	-10.2%	-1.1%	0.0%	0.0%	0.0%
70 to < 90 (n = 1069)	-5.7%	-0.3%	0.0%	0.0%	0.0%
>= 90 (n = 167)	-1.6%	0.0%	0.0%	0.0%	0.0%

Permit Categories					
A & B (n = 78)	-100.0%	-97.5%	-59.8%	-21.0%	0.0%
C (n = 960)	-25.8%	-2.6%	0.0%	0.0%	0.0%
D (n = 881)	-43.3%	-5.7%	-0.4%	0.0%	0.0%
E (n = 1418)	-0.7%	0.0%	0.0%	0.0%	0.0%
Home Port State					
MA (n = 1460)	-19.7%	-2.8%	0.0%	0.0%	0.0%
ME (n = 319)	-12.8%	-2.4%	-0.3%	0.0%	0.0%
NC (n = 180)	0.0%	0.0%	0.0%	0.0%	0.0%
NH (n = 148)	-18.0%	-1.6%	0.0%	0.0%	0.0%
NJ & DE (n = 361)	-72.0%	-0.7%	0.0%	0.0%	0.0%
NY & CT (n = 346)	-6.5%	0.0%	0.0%	0.0%	0.0%
RI (n = 256)	-13.8%	-1.8%	0.0%	0.0%	0.0%
VA & MD (n = 267)	0.0%	0.0%	0.0%	0.0%	0.0%
Gear Groups					
Dredge (n = 518)	0.0%	0.0%	0.0%	0.0%	0.0%
Gillnet (n = 1022)	-75.3%	-8.5%	0.0%	0.0%	0.0%
Hook (n = 87)	0.0%	0.0%	0.0%	0.0%	0.0%
Trawl (n = 1710)	-9.5%	-1.5%	0.0%	0.0%	0.0%

Table 7 Estimated net income impact of the no action alternative (Year 4 defaults) compared to FY2000 net income.

Length	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
< 50 (n = 1268)	-12.4%	-0.4%	0.0%	0.0%	0.0%
50 to < 70 (n = 833)	-1.5%	-0.1%	0.0%	0.0%	0.0%
70 to < 90 (n = 1069)	-0.3%	0.0%	0.0%	0.0%	0.0%
>= 90 (n = 167)	0.0%	0.0%	0.0%	0.0%	0.0%
Permit Categories					
A & B (n = 78)	0.0%	-1.7%	-9.9%	-16.2%	0.0%
C (n = 960)	-3.7%	-0.2%	0.0%	0.0%	0.0%
D (n = 881)	-5.9%	-0.8%	0.0%	0.0%	0.0%
E (n = 1418)	0.0%	0.0%	0.0%	0.0%	0.0%
Home Port State					
MA (n = 1460)	-1.8%	-0.1%	0.0%	0.0%	0.0%
ME (n = 319)	0.0%	0.0%	0.0%	0.0%	0.0%
NC (n = 180)	0.0%	0.0%	0.0%	0.0%	0.0%
NH (n = 148)	-4.1%	-0.4%	0.0%	0.0%	0.0%
NJ & DE (n = 361)	-12.5%	-0.6%	0.0%	0.0%	0.0%
NY & CT (n = 346)	0.0%	0.0%	0.0%	0.0%	0.0%
RI (n = 256)	-1.6%	-0.3%	0.0%	0.0%	0.0%
VA & MD (n = 267)	0.0%	0.0%	0.0%	0.0%	0.0%
Gear Groups					
Dredge (n = 518)	0.0%	0.0%	0.0%	0.0%	0.0%
Gillnet (n = 1022)	-10.7%	-2.6%	0.0%	0.0%	0.0%
Hook (n = 87)	0.0%	0.0%	0.0%	0.0%	0.0%
Trawl (n = 1710)	-0.4%	-0.1%	0.0%	0.0%	0.0%

Table 8 Restoration of income analysis Scenario 1, (trip limit scenario 2a and 4a), non-preferred TAC alternative, fixed DAS allocation.

Length	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
< 50 (n = 1268)	-1.6%	0.0%	0.0%	0.0%	0.0%
50 to < 70 (n = 833)	-1.0%	0.0%	0.0%	0.0%	0.0%
70 to < 90 (n = 1069)	0.0%	0.0%	0.0%	0.0%	0.0%
>= 90 (n = 167)	0.0%	0.0%	0.0%	0.0%	0.0%
Permit Categories					
A & B (n = 78)	0.0%	0.0%	0.0%	-2.6%	0.0%
C (n = 960)	-1.9%	0.0%	0.0%	0.0%	0.0%
D (n = 881)	-2.5%	-0.2%	0.0%	0.0%	0.0%
E (n = 1418)	0.0%	0.0%	0.0%	0.0%	0.0%
Home Port State					
MA (n = 1460)	-0.2%	0.0%	0.0%	0.0%	0.0%
ME (n = 319)	0.0%	0.0%	0.0%	0.0%	0.0%
NC (n = 180)	0.0%	0.0%	0.0%	0.0%	0.0%
NH (n = 148)	-0.7%	-0.4%	0.0%	0.0%	0.0%
NJ & DE (n = 361)	-0.8%	0.0%	0.0%	0.0%	0.0%
NY & CT (n = 346)	0.0%	0.0%	0.0%	0.0%	0.0%
RI (n = 256)	0.0%	0.0%	0.0%	0.0%	0.0%
VA & MD (n = 267)	0.0%	0.0%	0.0%	0.0%	0.0%
Gear Groups					
Dredge (n = 518)	0.0%	0.0%	0.0%	0.0%	0.0%
Gillnet (n = 1022)	-0.5%	-0.1%	0.0%	0.0%	0.0%
Hook (n = 87)	0.0%	0.0%	0.0%	0.0%	0.0%
Trawl (n = 1710)	-0.1%	0.0%	0.0%	0.0%	0.0%

Table 9 Restoration of income analysis Scenario 2, (trip limit scenario 2a and 4c), non-preferred TAC alternative, fixed trip limits, variable DAS (not considered).

Length	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
< 50 (n = 1268)	-3.4%	0.0%	0.0%	0.0%	0.0%
50 to < 70 (n = 833)	0.0%	0.0%	0.0%	0.0%	0.0%
70 to < 90 (n = 1069)	-0.3%	0.0%	0.0%	0.0%	0.0%
>= 90 (n = 167)	0.0%	0.0%	0.0%	0.0%	0.0%
Permit Categories					
A & B (n = 78)	0.0%	0.0%	-3.1%	-2.3%	0.0%
C (n = 960)	-0.8%	0.0%	0.0%	0.0%	0.0%
D (n = 881)	-2.9%	-0.1%	0.0%	0.0%	0.0%
E (n = 1418)	0.0%	0.0%	0.0%	0.0%	0.0%
Home Port State					
MA (n = 1460)	-0.2%	0.0%	0.0%	0.0%	0.0%
ME (n = 319)	0.0%	0.0%	0.0%	0.0%	0.0%
NC (n = 180)	0.0%	0.0%	0.0%	0.0%	0.0%
NH (n = 148)	0.0%	0.0%	0.0%	0.0%	0.0%
NJ & DE (n = 361)	-2.1%	0.0%	0.0%	0.0%	0.0%
NY & CT (n = 346)	0.0%	0.0%	0.0%	0.0%	0.0%
RI (n = 256)	-1.5%	0.0%	0.0%	0.0%	0.0%
VA & MD (n = 267)	0.0%	0.0%	0.0%	0.0%	0.0%
Gear Groups					
Dredge (n = 518)	0.0%	0.0%	0.0%	0.0%	0.0%
Gillnet (n = 1022)	-2.8%	-0.7%	0.0%	0.0%	0.0%
Hook (n = 87)	0.0%	0.0%	0.0%	0.0%	0.0%
Trawl (n = 1710)	-0.1%	0.0%	0.0%	0.0%	0.0%

Table 10 Restoration of income analysis Scenario 3, (trip limit scenario 1 and 3a), preferred TAC alternative, fixed DAS allocation.

Length	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
< 50 (n = 1268)	0.0%	0.0%	0.0%	0.0%	0.0%
50 to < 70 (n = 833)	0.0%	0.0%	0.0%	0.0%	0.0%
70 to < 90 (n = 1069)	0.0%	0.0%	0.0%	0.0%	0.0%
>= 90 (n = 167)	0.0%	0.0%	0.0%	0.0%	0.0%
Permit Categories					
A & B (n = 78)	0.0%	0.0%	0.0%	0.0%	0.0%
C (n = 960)	0.0%	0.0%	0.0%	0.0%	0.0%
D (n = 881)	0.0%	0.0%	0.0%	0.0%	0.0%
E (n = 1418)	0.0%	0.0%	0.0%	0.0%	0.0%
Home Port State					
MA (n = 1460)	0.0%	0.0%	0.0%	0.0%	0.0%
ME (n = 319)	0.0%	0.0%	0.0%	0.0%	0.0%
NC (n = 180)	0.0%	0.0%	0.0%	0.0%	0.0%
NH (n = 148)	0.0%	0.0%	0.0%	0.0%	0.0%
NJ & DE (n = 361)	0.0%	0.0%	0.0%	0.0%	0.0%
NY & CT (n = 346)	0.0%	0.0%	0.0%	0.0%	0.0%
RI (n = 256)	0.0%	0.0%	0.0%	0.0%	0.0%
VA & MD (n = 267)	0.0%	0.0%	0.0%	0.0%	0.0%
Gear Groups					
Dredge (n = 518)	0.0%	0.0%	0.0%	0.0%	0.0%
Gillnet (n = 1022)	0.0%	0.0%	0.0%	0.0%	0.0%
Hook (n = 87)	0.0%	0.0%	0.0%	0.0%	0.0%
Trawl (n = 1710)	0.0%	0.0%	0.0%	0.0%	0.0%

Table 11 Restoration of income analysis Scenario 4, (trip limit scenario 1 and 3c), preferred TAC alternative, fixed trip limits, variable DAS (not considered).

5.3 Social impacts

5.3.1 Introduction

This Social Impact Assessment characterizes the magnitude and extent of the social impacts likely to result from the proposed management action as well as from the other alternatives considered by the Councils during the development of Framework 1. The purpose of this SIA is to consider and describe all groups of participants and the communities involved in the monkfish fishery and to analyze the impacts of the proposed alternatives on those participants and communities.

National Standard 8 of the Magnuson Stevens Fishery Conservation and Management Act states that:

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

National Standard 8 requires Councils to consider the importance of fishery resources to affected communities and provide those communities with continuing access to fishery resources, but it does not allow Councils to compromise the conservation objectives of the management measures. “Sustained participation” is interpreted as continued access to the fishery within the constraints of the condition of the resource. The long-term conservation and rebuilding of stocks often require that limits be placed on particular gears and/or the harvest of specific stocks. Thus, National Standard 8 is interpreted to apply only to a consideration of continued overall access to fishery resources and is not a guarantee that fishermen will be able to use a particular gear type, harvest a particular species of fish, fish in a particular area, or fish during a certain time of the year.

A fundamental problem exists in attributing social change to specific factors such as management regulations when communities or other societal groups are constantly evolving in response to numerous external factors, such as market conditions or technology. Certainly, management regulations influence the direction and magnitude of social change, but attribution is difficult with the tools and data available. Attribution is particularly difficult considering the dynamic nature of fishing communities and other social groupings of individuals in the industry, and in comparison to the no-action alternative in the context of a declining or collapsing resource.

In general, management measures implemented through Framework 1, as with all framework adjustments, are intended to fall within the scope of the rebuilding program initiated by the Monkfish FMP. Therefore, while there may be short-term social impacts resulting from the Framework 1 actions, the long-term social impacts of this framework adjustment are consistent with the FMP assessment. The long-term social impacts

discussed in the FMP will be re-evaluated in Amendment 2. Nevertheless, this social impact discussion attempts to characterize the type and magnitude of short-term social impacts that can be expected from the Framework 1 alternatives. It also characterizes the differences between the expected social impacts under each management alternative in order to provide the Councils with information useful in selecting the final management measures to be included in Framework 1.

5.3.2 Background

A description of the affected human environment (monkfish fishermen and fishing communities), as well as an assessment of the social impacts of the monkfish rebuilding program, is presented in the Monkfish FMP. In addition, the Monkfish SAFE Report (Appendix I) contains useful information on affected fishing vessels and communities. The information in these documents can supplement this social impact assessment and provide background information to help assess the impacts of management alternatives. This information was used to qualitatively assess the social impacts of the alternatives under consideration for this framework adjustment. Amendment 2, now under development, will provide updated social and economic information to comprehensively characterize the socioeconomic baseline from which management actions will be evaluated.

5.3.2.1 Description of the commercial fishery

For a complete description of the commercial fishery for monkfish, refer to the Monkfish FMP and the Monkfish FY2000 SAFE Report (Appendix I).

5.3.2.1.1 New information

Supplemental information was filed with the original FMP under the RFA analysis but was not used in consideration of the alternatives. This information and analyses is included in this SIA to improve and focus the discussion of community impacts. The document, which is contained in Appendix III, Section 3, identifies concentrations of gillnet activity and can be used to identify places that may benefit relatively more from the proposed action.

5.3.2.1.2 Dealer gross revenue information

For the purposes of this Framework, data were compiled to illustrate the makeup of the monkfish fishery fleet and the distribution of the fishery across gear types, permit categories and port of landing. These data are presented in Appendix III, Section 1. Additional information of this type can be found in the Monkfish SAFE report as well as in the Affected Human Environment section of the Monkfish FMP document.

5.3.2.1.3 Homeport dependency on monkfish

For the purposes of assessing the impact to the communities of interest, defined later in this document, data have been compiled that shows total and monkfish revenue by homeport for the communities of interest. Essentially, impact analysis evaluates the impact to the overall community, not just that portion of the community that participates in the fishery in question. Therefore, monkfish fishing activity is expressed as a percentage of the overall community's direct fishing activity. Additionally, information

is provided as to the number of federally-permitted vessels in the community as compared with the number of vessels with active monkfish permits. The complete data set can be found in Appendix III, Section 2.

5.3.2.1.4 Current management regulations

The Monkfish FMP was implemented on November 8, 1999 and contains the following measures:

- Creation of a multi-level limited access program
- Designation of two management areas
- Establishment of target TACs
- Institution of effort limitations (DAS)
- Institution of trip limits
- Definition of bycatch allowances
- Designation of minimum fish sizes and minimum mesh size
- Implementation of gear restrictions
- Creation of spawning season closures
- Definition of a framework adjustment process
- Creation of permitting and reporting requirements
- Institution of other measures for administration and enforcement.

The FMP contains a four-year phase in of management measures to reduce fishing effort and rebuild the stocks within ten years or less. Year 1 of the plan began May 1, 1999 the scheduled start of the fishing year, even though the FMP was not implemented until six months into the fishing year. An analysis by NMFS last year, however, concluded that even if the Year 1 measures had been implemented on May 1, 1999, the quota for the Southern Area would have been exceeded. Consequently, the Council made no adjustment to the default regulations for Year 2 or Year 3 (the current fishing year). These regulations allocated 40 DAS for directed fishing for monkfish and imposed a trip limit by permit category and gear type. For vessels fishing in the NFMA, other than scallop dredge vessels, the regulations imposed no trip limit during Years 2 and 3, regardless of whether a vessel is on a monkfish or multispecies-only DAS.

For Year 4, starting May 1, 2002, the FMP regulations call for elimination of the directed fishery (zero DAS) and reduced bycatch trip limits, unless modified during the current annual review and adjustment process.

5.3.3 Social impact of Framework 1 Alternatives

5.3.3.1 Scale of assessment

For the purposes of this social impact assessment, the community groups identified in the next section will serve as the primary scale of measurement. As such, it considers impacts on both primary and secondary fishing communities throughout the region. However, due to time constraints, the primary communities will be the focus of the assessment. The fishing communities of most interest in this framework adjustment are identified and discussed below.

5.3.3.2 Communities of interest

The communities most likely to be directly affected by the alternatives under consideration in this framework adjustment are defined as Primary or Secondary monkfish communities in the Monkfish SAFE report. Primary communities are defined as those averaging more than \$1 million in monkfish revenue from 1994-1997. Secondary communities are defined as those that averaged more than \$50,000 in monkfish revenues from 1994-1997.

Based on the information presented in the Monkfish SAFE report and the likely distribution of the impacts of the alternatives under consideration, the following primary and secondary community groups have been identified as Framework 1 “communities of interest,” about which more detail is provided and on which this assessment will primarily focus. A plethora of background information on many of the New England communities of interest can be found in New England’s Fishing Communities (MARFIN Report) by Hall-Arber et. al (2001).

Primary Community Groups

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

Secondary Community Groups

- 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 Bays, NY
- Newport, RI
- Hampton, VA
- Newport News, VA

While the community groups above have been identified as communities of particular interest in this framework adjustment, it is still important to consider the impacts of the measures in this framework adjustment across all communities. Social impacts can be defined as the changes that a fisheries management action may create in people's way of life (how they live, work, play, and interact), people's cultural traditions (shared beliefs, customs, and values), and people's community (population structure, cohesion, stability, and character). As such, social impacts may result from changes in flexibility, opportunity, stability, certainty, safety, and other factors that are not specific to any community, but oftentimes to any individual or entity experiencing changes resulting from a fishing regulation.

It is possible that the social impacts of some measures under consideration will not be experienced solely by one community group or another; rather, it is likely that some impacts will be experienced across communities and gear sectors. An example of this may be a reduction in allocated DAS, if it is applied to all monkfish permit holders.

5.3.3.3 Methodology

According to the Council on Environmental Quality regulations, social impact analysis fulfills the mandate that the "human environment" in NEPA be "interpreted comprehensively" to include "the natural and physical environment and the relationship of people with the environment" (40 CFR 1508.14). To meet this goal, the Committee on Guidelines and Principles (1994) identified five basic categories of social impact variables:

1. Population characteristics: size and expected size, ethnic and racial diversity and the influx and outflux of temporary residents.
2. Community and institutional structures: size, structure, linkages of local government, historical and present patterns of employment and industrial diversification, and the size, activity and interaction of voluntary associations, religious organizations and interest groups.
3. Political and social resources: distribution of power and authority, identification of interested and affected parties, and the leadership capacity within the community or region.
4. Individual and family changes: factors that influence the daily life of individuals and families in the community such as attitudes toward the proposed policy, alterations in family and community networks and perceptions of risk, health, and safety.
5. Community resources: patterns of natural resource use, the availability of housing, and community services including health, police, fire protection and sanitation facilities.

5.3.3.4 Impact criteria and analysis measurements

With limited time to complete this analysis and with the scope of alternatives under consideration being within that of the original FMP, it is impossible and unnecessary to fully analyze the impacts of the alternatives relative to the above criteria. Instead, this

document contains a qualitative discussion about each of the alternatives and their effect on more generalized impact criteria.

Impact Criteria:

1. Changes in occupational opportunities
2. Changes to community infrastructure
3. Regulatory discards
4. Formation of attitudes

5.3.3.4.1 Changes in Occupational Opportunities

Description: The degree to which the implementation of the alternatives in this framework could alter the occupational profile of the affected fishing communities.

The assessment of this variable relates to variable numbers 2, 4 and 5 identified by CEQ and discussed in section 5.3.4.

Changes in occupational opportunities can lead to changes in household/family income, classes, and lifestyles. In assessing this variable, both the short-and long-term shifts in job opportunities should be considered. This includes changes to year-round and seasonal fishing opportunities, short-term and long-term dislocation from the fishery, employment opportunities, and the ability to find and keep crew. Flexibility for the fishing fleet and the ability to plan business ventures over the short-term and long-term also are related factors. Changes in occupational opportunities are not only important to consider for the commercial fishing fleet, but also the recreational and party/charter fleet.

The economic impacts of changes in occupational opportunities for fishing communities are well-documented and are often erroneously equated with social impacts. Impacts arising from changes in occupational opportunities that are more social in nature are more difficult to identify and quantify. They are also difficult to attribute to one specific cause, especially a fishing regulation. External forces (status of economy, community shifts away from fishing, etc.) can influence the magnitude and direction of changes in occupational opportunities. Emphasis should be placed on identifying potential changes in the unique social and family arrangements that characterize the communities under consideration, particularly on changes in household employment patterns, trends in family-run fishing businesses, and participation in job retraining programs. Special consideration should also be given to social and cultural values and norms that may be affected by changes in opportunity, such as long-term family involvement in the fishery, job satisfaction, and respect for fishing as an occupation and a way of life.

5.3.3.4.2 Changes in Community Infrastructure

Changes in Community Infrastructure – The increase or decrease in the demand and supply of basic infrastructure services and facilities essential to fishing in the affected communities, including processors, seafood markets, boat and equipment repair shops, bait and ice providers, display auctions, cooperatives, creditors, legal services, etc.

The assessment of this variable relates to variable numbers 1, 2, and 5 identified by CEQ and discussed in section 5.3.4.

The cost, quality, availability, and location of fishing-related services can affect fishing community members' business practices, satisfaction with their community, and overall well-being. Additionally, these service industries provide alternative, fishing-related employment opportunities in communities and can contribute significant revenues to the city and county in which the fishing community is located. Impacts on this social impact factor are directly connected to changes in industrial diversification and occupational opportunities. They are also more long-term in nature.

5.3.3.4.3 Regulatory Discarding

Description: The forced discarding of oftentimes marketable and dead fish; usually a byproduct of trip limits, quotas, and minimum fish sizes.

The assessment of this variable relates to variable numbers 4 and 5 identified by CEQ and discussed in section 5.3.4.

Regulatory discarding is an important social problem, just as it is an ecological or management problem. Low trip limits resulting in excessive discarding leave fishermen feeling embarrassed, demoralized, and disgusted with their way of life. Fishermen recognize that discarding marketable and oftentimes dead fish does nothing to benefit them or their families, the health of the resource, their disappearing hold on local fresh fish markets, or seafood consumers. Fishing is a family business, so the impacts of this are felt throughout the entire family and the entire fishing community.

5.3.3.4.4 Formation of Attitudes

Description: The positive or negative feelings, beliefs, or positions expressed by impacted members of fishing communities regarding the measures under consideration for Framework 1.

The assessment of this variable relates to variable numbers 2, 3 and 4 identified by CEQ and discussed in section 5.3.4.

This factor provides information about the community climate that prevails and can help to assess the potential for success with Framework 1 and the need for mitigation in some circumstances. Consideration of this factor can provide for a better understanding of how changes induced by this framework adjustment could influence the affected communities. In addition, management measures that are more preferred or supported by the fishing industry sometimes encounter more success than measures that are opposed or that the industry feels are forced upon them. Some people believe that compliance with regulations is directly related to the degree of support for the regulations or faith that they will be effective in achieving their objectives.

Analysis Measurements:

1. Magnitude: The overall effect of the proposed alternative on the impact criteria.
2. Duration: The length of time the impacts of the proposed alternatives will be felt.
3. Probability of occurrence: The likelihood of the impacts occurring.

5.3.3.5 Alternatives

The alternatives under consideration, which are analyzed in this section, including the no-action alternative are described in Section 3.0.

5.3.3.5.1 Impacts of measures under consideration

This section provides a discussion of the social impacts that are most likely to result from trip limits and DAS reductions, two of the management measures that form the basis for the alternatives under consideration in this framework adjustment. The details of the alternatives are discussed in subsequent sections of this assessment.

Trip Limits

In general, trip limits can affect the structure of a 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. Fishermen's views on trip limits are usually based on what the limit will do to their income, not that a trip limit itself holds some socially or culturally undesirable characteristic. Trip limits are an important component of the Framework 1 management measures, as they constitute the main tool used to manage effort in the fishery. Most of the negative social impacts result from attitudes that form when fishermen are forced to discard their catch as a result of the trip limit.

Days-At-Sea Reductions

The impacts of reductions in DAS available to vessels for monkfish fishing can be significant, depending on the amount of allocated DAS that vessels use. The higher the percentage of allocated DAS usage, the more significant the impact of reducing DAS. 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 monkfish fishing 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 shoreside facilities that are dependent on the affected vessels.

Other indirect impacts of DAS reductions manifest themselves in the form of reduced certainty and stability in the fishery and/or community, increased concerns about safety, problems finding and keeping crew, and overall increases in stress and reductions in feelings of job satisfaction. Indirect negative social impacts resulting from DAS reductions relate to adaptations that vessels make to compensate for reduced opportunity and reduce income, which can oftentimes increase their risk-taking and compromise their safety at sea. As income is reduced, some fishermen will try to minimize their operating costs in order to stay viable, sometimes reducing or eliminating crew, especially on smaller vessels. More owners of smaller vessels could be forced to fish alone for some or

all of the year. Vessels may also try to maximize their remaining DAS by fishing during the winter when prices are usually better. Winter weather is more extreme and less predictable, increasing dangers that fishermen may encounter.

In addition, the disproportionate impacts of DAS reductions can create perceptions of inequity, which often exacerbate social impacts occurring in fishing communities. The groundfish fishery is an example of perceptions of inequity relative to the disproportionate impacts of DAS reductions. Some people think that DAS allocations from the Multispecies FMP Amendments 5 and 7 were unfair and created inequities and tensions between sectors involved in the fishery. Those who switched from groundfish to other fisheries with the decline of the groundfish stocks feel that they were punished by not receiving their true historical allocation of DAS. Some fishermen view DAS allocations as unfair because those who depend most on the fishery were impacted the greatest, while others who never depended on the fishery were allowed to potentially increase their effort eighty-eight fold (88 Fleet DAS were allocated to any vessel that could prove one pound of groundfish landings). Many fishermen feel that they have sacrificed more than their share to rebuild the resource and are concerned about their future ability to realize the benefits of their sacrifices. Five years later, the fishery is facing proposals to reduce DAS allocations by another 30% and 37%. Similar to Amendments 5 and 7, this measure will again significantly affect those who are most active in and dependent on the multispecies fishery.

One concern about the long-term impacts of DAS reductions is that once allocated DAS are reduced, the DAS that are eliminated from the fishery will never be returned to the vessels. Whether or not this is the case cannot be predicted at this time, but it should be noted as a serious concern relative to long-term social and community impacts of DAS reductions. Also, as noted in the report from the social impact informational meetings, many communities are losing much of their shoreside support infrastructure. Some communities throughout the region have experienced losses of cutting houses, ice facilities, processing facilities, and other important services. While these losses may be due in part to external factors (healthy economy, shift towards recreation and tourism, etc.), additional losses may be experienced in some communities that depend on the monkfish fishery or on vessels that depend on the monkfish fishery.

On the other hand, in recent years some communities have experienced growth in infrastructure elements as a result of positive changes in fisheries such as scallops, herring, groundfish and summer flounder. Communities with diversified fisheries dependence, including monkfish, are more able to weather stock declines or management restrictions in individual fisheries. The long-term concerns about the effect of monkfish management relate to the ability of the community to remain actively involved in the monkfish fishery, and the ability of the community to support increased participation in the fishery as the stocks continue to recover. Maintaining infrastructure elements even at minimal levels during periods of low activity significantly reduces the capital (financial and social) required to participate in a recovered fishery. Retaining DAS is viewed as essential to enabling monkfish dependent communities to maintain those elements, even at minimal levels.

Conflicts between user groups can exacerbate intra- and inter-community conflicts, create additional perceptions of inequity, and weaken overall cohesion within fishing communities. For instance, in communities where both monkfish gillnetters and trawlers exist, due to the disproportionately higher trip limits for non-gillnetters prior to the court order), conflicts and perceptions of inequity among the user groups exists. Gillnetters feel that they are being unfairly treated and, as such, the fishing community is divided by the gear sectors, thus weakening overall cohesion.

As a result of the recent court decision that effectively granted a trip limit increase to gillnetters while Framework 1 was being developed, there have been reports of problems with the excessive amount of gillnet gear being set. This has reportedly resulted in user conflicts between gillnetters looking for suitable places to set gear, and between trawls and gillnets as the increased presence of gillnets occupies bottom areas traditionally fished by mobile gear vessels.

5.3.3.6 Social impacts of this action

The purpose of Framework 1 is two-fold: (1) establishment of the fishing year 2002 quota and avoidance of the implementation of the Year 4 default measures; and, (2) elimination of the gear-based trip limits differential. Refer to the MARFIN Report by Hall-Arber et al (2001) for an in-depth look at many of the monkfish communities in New England. Due to the scope and timing of this Framework, it is difficult to assess and quantify the impacts of each option under each alternative for its effect on specific communities.

Description of the Status Quo/Baseline for Comparison: If the Framework did not exist, the status quo would be the Year 4 default measures as described above. This includes an elimination of the directed fishery (zero DAS) and reduced incidental catch limits. It is important to note that this status quo, as compared to a scenario where no management measures exist, is the baseline for comparison. Therefore, all options under consideration are compared to the Year 4 default measures (defined as the status quo).

5.3.3.6.1 TAC setting and the Year 4 default measures vs. Alternatives under consideration

Refer to the SIA in the EIS for the Monkfish FMP for a full discussion of the overarching issues and the community impacts of the Year 4 default measure. To summarize, under Year 4 default measures, there would be no allocations for monkfish limited access vessels. In addition, in Year 4, a reduction in the incidental catch limits for multispecies and scallop vessels would occur. The FMP analysis asserted that the ports with a large multispecies or scallop fleet and those that were highly dependent on monkfish revenues would be the most impacted.

The ports that were predicted to have greater than a 20% decline in monkfish revenue include:

- New Bedford, MA
- Gloucester, MA
- Boston, MA

- Portland, ME
- Rockland, ME
- South Bristol, ME
- Belmar/Brielle, NJ
- Newport/Tiverton, RI, and
- Hampton, VA.

In a supplement to the original FMP RFA (Appendix III, Section 3), it was estimated that 139 vessels would incur a loss of gross revenues of 35% or greater if the Year 4 default measures were implemented. Refer to this analysis to see the distribution of impacts across gear classes, length classes, permit categories, principal ports and principal port states.

5.3.3.6.2 By Permit Category

Category A and B Vessels

Analysis of the Status Quo/No Action (Year 4 Default Measure) in Framework 1 shows that permit categories A and B would be most adversely affected by the elimination of directed fishing on monkfish and almost all vessels in these categories would lose the majority of their fishing income if the status quo alternative was implemented. This is true because vessels in these two permit categories are the most dependent on monkfish landings as a proportion of their total income and do not hold limited access permits in multispecies or scallop fisheries. The no-action alternative would affect vessels fishing from the Mid-Atlantic states because the majority of the category A and B permit holders are homeported in this region (see Monkfish SAFE Report). Thirteen (13) of the 16 vessels with category B permit in FY2000 were homeported in Barnegat Light, NJ.

Under the alternatives considered in this framework, compared to the no-action alternative, fishing safety will not be compromised, community infrastructure has a better chance of surviving, attitudes about the fishery management process will be more positive, and there will likely be little or no disruption in family life. Fishermen and communities would experience a decline in fishing flexibility and opportunity under alternatives that reduce DAS in favor of a higher trip limit. However, under lower trip limit alternatives, regulatory discards may increase, particularly on trawl vessels, depending on the degree to which effort can be redirected away from high-monkfish tows, and on gillnet vessels that do not reduce the amount of gear set.

Category C and D Vessels

While not as severe as the permit category A and B vessels, category C and D vessels will experience a decline in fishing-related income of between 25% and 50% for the top 10th percentile of observations under the no-action alternative. Most vessels fishing for monkfish from New England states have a multispecies permit with which they are allowed to land monkfish while fishing on a multispecies day-at-sea. As a result, the New England vessels will still be able to land some monkfish, albeit at a lower trip limit. Generally, vessels in these permit categories will experience a much lower impact under any of the trip limit options under consideration as compared to the no-action alternative. While these vessels may not achieve the same fishing-generated revenues as they did in

fishing year 2000, they will experience a neutral or positive impact under the trip limit and DAS options considered in this framework.

Most of the category C permit holders were homeported in the primary ports (195 of 341): Portland(10), Boston(46), Gloucester(18), New Bedford (93), and Point Judith (19). Other impacted ports include, Cape May, NJ (19) and Barnegat Light (9). Although vessels in these permit categories will be highly impacted by the selection of the no-action alternative, they will not be impacted as much as the category A and B boats.

In fishing year 2000, of vessels homeported in one of the six primary ports (Portland, ME; Boston, MA; Gloucester, MA; New Bedford, MA; Barnegat Light, NJ, and Point Judith, RI), 97-100% of the category D boats held limited access multispecies permits. Category C permits are held by between 33-100% of the vessels in the five primary ports. Ports at the lower end of the range, such as New Bedford, MA (47%) and Barnegat Light, NJ (33%), typically held the highest percentage of limited access scallop permits, 69% and 67%, respectively.

Therefore, the selection of any alternative other than the no-action alternative would bring more positive effects on homeports monkfish boats reside, regardless of permit category, but most notably on ports that are home to category A and B vessels.

5.3.3.6.3 By Gear Type

Gillnet vessels will experience the largest decline in income if the no-action alternative is chosen. If, for example, trip limit options 2a and 4a were chosen, 10% of gillnet vessels would experience over 60% restoration of income lost under the no-action alternative. Trawl vessels would experience a decline in fishing-related income but only a fraction of what the gillnet sector would experience. Additionally, under all of the other management options, the trawl sector would experience a full restoration of income. The dredge and hook sectors would experience little to no impact from the No Action alternative as well as all of the other alternatives under consideration. This may be because the majority of the vessels in these sectors are uninhibited by the current trip limit. Of the six primary communities, vessels homeported in Portland (93%), Boston (99%), New Bedford (70%) and Point Judith (73%) predominately prosecute the fishery with trawl gear. Gloucester homeported vessels are split between trawl (48%) and gillnet (50%). While the figures for Barnegat Light are not available at the time of this writing, it is important to note that 75% of the vessels with monkfish permits and that are homeported in New Jersey use gillnets. Other areas of high gillnet use in the monkfish fishery include New Hampshire (91%) and New York (69%).

Therefore, Gloucester, New Jersey, New Hampshire and New York Gillnet ports will be most impacted from the selection of the no-action alternative. Additionally, they may experience negative impacts from the selection of Alternatives 2a and 4a. Alternative 2a provides a trip limit and 40 DAS for the NFMA and Alternative 4a provides a 309/1,026 pounds/DAS (tail/whole fish weight) trip limit and 40 DAS allocations to vessels in category A and C and 267/888 pounds/DAS and 40 DAS allocations for vessels in categories B and D. Since vessels homeported in these areas do not have their DAS

constrained beyond current levels, the fishing communities in these areas will not experience a lack of flexibility. They may, however, experience an increase in regulatory discards, which may result in the formation of negative attitudes. However, this framework is a short-term action and the resulting trip limits are meant to take effect for only one fishing year. If DAS reductions were implemented, then the long-term impact of those measures would be very different. As such, the communities in which a lot of gillnet vessels are homeported do not stand to experience a change or loss in fishing-related infrastructure as a result of this framework in comparison to the no action alternative.

5.3.3.6.4 By Homeport or Homeport State

While monkfish landings in the primary ports met the threshold set, they do not represent the communities with the highest dependence on monkfish as a percent of the total revenues. According to the SAFE Report, the following communities ranked as the top five communities in terms of dependence on monkfish by monkfish permit holders of the twenty four defined communities of interest: Westport, MA (51%), Port Clyde, ME (44%), Plymouth, MA (41.5%), South Bristol, ME (41.5%) and Portsmouth, NH (40%) (See table 23 in the Monkfish SAFE Report). According to the economic analysis, the states with the highest impact from the selection of the No Action alternative are the NJ/DE combined vessels. It is estimated that the 10th percentile of vessels homeported in these states will experience a 72% decline in fishing-related revenue as compared to that of FY 2000 under the No Action alternative. It is apparent that vessels homeported in NJ/DE would experience the highest social impacts compared to the other states with monkfish permit holders under the No Action alternative. See Table AIII-16 in Appendix III for data related to community monkfish dependence.

Although these vessels would experience a decline, NJ/DE vessels would experience a 60-70% restoration of income under all of the other options. Vessels homeported in the state of Maine would rank as the 2nd most impacted state with a 19% decline in fishing-related income. Under all of the other alternatives, they would restore their income almost fully.

Therefore, under any of the options other than the no-action alternative, it is unlikely that the communities identified in the states analyzed in Section 5.2 will experience negative social impacts. The only difference between the options is the trade-off between the trip limit level and DAS allocations for most options. Lower trip limits may result in mild short-term impacts due to the regulatory discards. Lower DAS allocations may result in longer-term impacts due to the loss of fishing flexibility, loss of shoreside infrastructure and safety issues. However, it is important to keep in mind that this is a one-year plan and, due to the expected implementation of Amendment 2 in 2003, it is unlikely that these impacts will be long-term.

5.3.3.6.5 Elimination of differential trip limits

Refer to the EIS in the FMP for a full analysis of the economic and social impacts of the original trip limit scenario that in 2001 was rejected by the Rhode Island Federal Magistrate Judge because it was in violation of National Standards Two, Four and Five.

The total landings under the Preferred Alternative are not expected to change from fishing year 2000 landings. Under Court Order the trip limit on non-trawl (i.e. gillnet) vessels was raised from 300 lbs./DAS to 1,000 or 1,500 lbs./DAS, depending on permit category. In order to meet the TAC under the Preferred Alternative, trip limits for the trawl sectors must be reduced to compensate for the increased trip limit in the gillnet sector. If the an alternative other than the Preferred Alternative is chosen, impacts will be proportional to the reductions in catches by sector that result from the reduced TAC and trip limits (and/or DAS allocation reductions). However, these impacts are necessary as a result of the requirement to achieve the quota with a reasonable (50% probability) expectation of success.

Therefore, community impacts will be positive for communities with a greater proportion of non-trawl landings and proportionately negative for the trawl sector communities, since their landings will decrease to allow for the increased non-trawl landings. In non-trawl communities, the community will experience an increase in fishing (monkfish) income due to the higher trip limit. These communities may increase their monkfish-processing infrastructure to handle the influx of monkfish. Regulatory discards will decrease by fishermen homeported in these communities as the trip limit is increased. Overall, attitudes about the management of monkfish in these communities will be more positive due to the increased fishing opportunities. Conversely, trawl communities dependent on monkfish will experience negative impacts from the court-ordered correction of the differential trip limits as their trip limits are decreased to compensate for the increase in non-trawl trip limits. See Table AIII-16 in Appendix III for data related to community monkfish dependence.

5.3.3.7 Preferred Alternative (proposed action)

The Councils propose the following measures for the SFMA: Trip limits of 550 pounds per DAS (tail weight) for permit categories A and C and 450 pounds per DAS (tail weight) for permit categories B and D. All permit categories will be allocated 40 DAS (previously Scenario 3a). And for the NFMA, they propose no change from measures in place during Years 2 and 3, that is 40 monkfish DAS allocated and no trip limit while on a monkfish or multispecies DAS.

The Committee and Councils considered analysis results and public comments in selecting the proposed action from the alternatives under consideration to achieve the preferred alternative TAC, including vessels net income impacts by various categories (size class, permit type, homeport state and gear) before selecting the preferred alternatives.

5.3.3.7.1 Potential Impacts of the proposed action

Through public comment at the Council and Committee meetings, and the written comments submitted, a qualitative summary of perceived impacts of the proposed action under the impact criteria subheadings is illustrated below.

Changes in Occupational Opportunities:

Several in the industry asserted that the a lower trip limit would reduce price volatility and return the greatest value from the limited available harvest. This may provide the industry and related communities more stable monkfish employment opportunities. Additionally, the increased gillnet trip limit (from FY2000 levels) will allow that sector to increase participation in the fishery. As a result, communities in which gillnetting occurs will experience an increase in monkfish-related revenue and employment opportunities.

Conversely, representatives of the offshore trawl fishery expressed concern that the lower trip limit would not allow them to operate profitably and, therefore, they would no longer be able to participate in the fishery. According to industry representatives, the chosen option will essentially eliminate the offshore trawl fishery as the allowable trip limit in the SFMA doesn't cover costs of a trip at that level. Additionally, they felt that the trip limit wasn't worth using a multispecies DAS. As a result, communities where offshore trawlers are homeported who are substantially dependent on monkfish will experience a decrease in monkfish-related revenue and employment opportunities.

Changes to Community Infrastructure:

Comments from processing and harvesting sectors favored a longer season (higher DAS) at a lower trip limit than a higher trip limit with fewer DAS. A lower DAS allocation would reduce flexibility and opportunity, and would cause a redirection of effort by many vessels into multispecies fisheries (many of which are overfished and may not be able to absorb additional effort displaced out of the monkfish fishery). This is due to the price sensitivity of the export market and their need to freeze and hold product for shipping at the optimal time, without glutting the market. This may enable monkfish processing communities to better plan for incoming product and may have a favorable affect on the stability of the processors in the affected communities. As a result, demand for other types of shore-side infrastructure may increase, especially in communities with a high proportion of gillnet boats.

Regulatory Discards:

Generally, low trip limits increase the occurrence and amount of regulatory discarding and high-grading. However, the gillnet fishermen have commented that they will tailor their fishing effort (number of nets deployed to target monkfish) to maximize efficiency, and minimize discards, at a given trip limit level.

Formation of Attitudes:

Social impacts and the formation of attitudes will be varied depending on the makeup of the fishing community. Generally, there are three types of fishing communities:

1. Communities where the vast majority of monkfish is landed by gillnets
2. Communities where the vast majority of monkfish is landed by trawlers
3. Communities where the number of vessels landing monkfish is divided among gillnetters and trawlers.

Because the preferred alternative for the NFMA does not impose a trip limit on trawl and gillnet vessels fishing on either a monkfish or multispecies DAS, communities of interest in this area will not experience the same impacts as communities in the SFMA where vessels are restricted by a trip limit.

The formation of attitudes in each of these communities will vary greatly as a result of the preferred alternative in this framework. Community Type #1 describes monkfish ports generally in New Hampshire, New York and New Jersey. Community Type #2 describes the ports of Portland (97% of landings in fishing year 2000), Boston (99%), New Bedford (70%) and Point Judith (76%) as well as the states of Maine, Massachusetts, Rhode Island and Connecticut. Gloucester typifies the Community Type #3 where 48% of monkfish landings are caught using otter trawls and 50% are from gillnets.

The communities that may be impacted are those with monkfish vessels that fish primarily in the SFMA and include:

Community Type 1: New York, New Jersey

Community Type 2: New Bedford, Point Judith, Massachusetts, Rhode Island and Connecticut

Community Type 3: None

As a result, it is clear that the attitudes formed as a result of the preferred alternative will be positive in Community Types #1 and negative in Community Types #2 as the trip limits are corrected for the gillnet vessels to satisfy the court order.

5.3.4 Conclusions

One difficulty in assessing the social impacts of the alternatives under consideration as compared to the no-action alternative is that in the short-term, social impacts will result from attitudes and perceptions about the new regulations, adaptations that fishermen make to the new regulations, and short-term losses in revenues.

Compared to the no action alternative, all of the alternatives under consideration are likely to produce positive short-term social impacts. Based on public comment, the majority of the fishing industry generally supports alternatives, other than the No Action alternative, proposed in Framework 1. Depending on the gear sector, whatever alternative is implemented, attitudes and perceptions about monkfish management may improve.

The management measure under consideration in this framework that has the most chance of producing positive short-term social impacts is the change in trip limit for the gillnet category. Although this change may enhance the overall perception of the fairness of the management plan, the trawl sector is likely to be negatively affected by the redistribution of the TAC to accommodate the court-ordered evacuation of the gear-based trip limit differential. As such, communities with a higher dependence on gillnets to catch monkfish will see positive benefits from the proposed action, whereas trawl

monkfish ports may see negative effects from this action, but even those effects are positive in comparison to allowing the Year 4 defaults to take effect.

The management measures that were under consideration in this framework that have the greatest chance of producing negative short-term (and most likely long-term) social impacts are DAS reductions. In the short-term, the decrease in allocated DAS would be offset by a higher trip limit. While most other measures considered in this framework would result in short-term impacts to some sectors, DAS reductions are likely to produce the broadest long-term impacts on affected vessels, families, and communities. It will be more difficult to adjust to reductions in monkfish opportunities (DAS) on which some vessels depend 100%. However, for those vessels with a limited access multispecies permit, the impact would be relatively less because they can still fish under a multispecies DAS. The proposed action does not reduce monkfish DAS. It is very important to keep in mind that this Framework merely sets up the management measures and TAC for fishing year 2002. Long-term management and social/community impacts will be addressed in Amendment 2.

5.3.5 References

Hall-Arber, M., Dyer, C., Poggie, J., McNally, J., Gagne, R. 2001. New England's Fishing Communities (MARFIN Report), MIT Sea Grant College Program, 426 pp.

Interorganizational Committee on Guidelines and Principles. 1994. Guidelines and principles for social impact assessment. *Impact Assessment* 12(2):107-152.

5.4 Habitat impacts

5.4.1 Introduction and overview of habitat impacts

A comprehensive description of the physical environment in which monkfish occur and an assessment of the impacts to habitat resulting from a variety of fishing practices is presented in Amendment 1 to the Monkfish FMP (also known as the Omnibus EFH Amendment). The EFH Amendment identifies and describes the essential fish habitat for seventeen other Council-managed fishery resource species. The document includes a description of the designs, functions, and actions of all types of fishing gear used in New England fisheries, including the principal monkfish gears: otter trawls, gillnets, and scallop dredges. The alternatives and actions proposed in this framework adjustment are not expected to increase any adverse impacts on essential fish habitat (EFH) resulting from fishing activity.

Different habitat types serve different ecological functions and are considered to have different functional values. Bottom types of higher complexity are generally believed to have higher functional value to the ecosystem than those of low complexity (Auster and Langton 1999; NEFMC 1998). More complex habitats generally exhibit some form of structure, either in the form of the bottom type itself (e.g., rock or boulder piles) or due to some associated biogenic structure (e.g., sponges, bryozoans, tunicates, mussel beds, clay pipes, etc.) (Auster and Langton 1999). The principal function provided by the structure associated with these complex habitats is often predator avoidance, which increases the

survival rate of demersal species (juveniles especially) and contributes to higher recruitment (Kaiser et al. 1999). Prey abundance may also be increased and energetics may be optimized in areas of higher complexity and functional value (Gerstner 1998; Gerstner and Webb 1998; Kaiser et al. 1999).

Of the three principal fishing gears used to harvest monkfish (otter trawls, gillnets, and scallop dredges), otter trawls are associated with the majority of landings (approximately 58% on average, see Appendix I). Gillnets are the second most used gear and scallop dredges are the third most used gear type (with 32% and < 10% of landings on average, respectively). The majority of studies that have investigated the impacts of fixed gillnets have concluded that they have a minimal effect on benthic habitats (Barnette 2001). West et al. (1994) stated that there was no evidence from their study that sink gillnets contributed importantly to bottom habitat disturbance. There is some evidence (Gomez et al. 1987; Ohman et al. 1993) that gillnets may be associated with adverse impacts to coral reef habitats, but aside from these potential impacts to coral reef communities, Barnette (2001) concludes that “the available studies indicate that habitat degradation from gillnets is minor.” Thus, any management measures that increase or encourage the use of gillnets would be considered to have no adverse effects on any identified EFH relative to similar levels of fishing with bottom-tending mobile gear types.

The most significant impact associated with bottom-tending mobile fishing gear, including the various designs of otter trawls and scallop dredges, is the smoothing, or flattening, of substrate bedforms (Auster and Langton 1999). In sandy sediments, this gear type is associated with the flattening of sand ridges and the disturbance of some epifauna and infauna (Auster and Langton 1999). The extent of these impacts is dependent on the frequency and intensity of gear use (Auster and Langton 1999). In habitats of higher complexity, such as rock and gravel substrates, otter trawl gear is sometimes associated with the scraping and smoothing of gravel mounds and turning over of rocks and boulders (Auster and Langton 1999). Epifauna present in these habitats are often removed or crushed (Auster and Langton 1999; Collie et al. 1997).

The rate of habitat recovery from the disturbances associated with monkfish fishing is another important consideration to understanding habitat impacts. In general, high energy habitats (e.g., shallow areas with relatively strong currents and wave action) are thought to recover more quickly than low energy habitats (e.g., deep areas with relatively mild currents and little wave action) in part because the biologic communities present in these areas are adapted to those environments (Auster and Langton 1999; DeAlteris et al. 1999; Witman 1998). The biologic communities in relatively low energy environments tend to be long-lived and slow-growing (e.g., corals and sponges). The communities that form the biogenic structure in these areas take a long time to recover and may only recover in the absence of disturbance (Sainsbury et al. 1997).

The NMFS Final Rule for EFH defines an adverse effect as “any impact which reduces quality and/or quantity of EFH” (67 FR 2343). The significance of a fishing gear-related impact to habitat, and whether it is considered adverse, can depend on several factors, including: (1) the type of habitat; (2) the effect of the gear on the habitat; (3) the recovery

rate of the habitat; (4) the location of the habitat and impact; (5) the natural disturbance regime; and (6) the functional elements of the habitat to managed species. The flattening or smoothing of sandy bedforms (sand ripples and waves) by bottom-tending gear may be short-term and inconsequential if these bedforms are frequently disturbed naturally and reform quickly in the face of currents and wave action (Auster and Langton 1999). The rolling and turning over of rocks and boulders and the removal of attached epifauna may appear to be a significant impact, but it may not be adverse if the functional elements required by fish species are the interstitial spaces around and between the rocks and boulders and not the attached epifauna. Since the rocks and boulders remain, albeit in a different place or configuration, the functional elements of the habitat may not have been qualitatively affected.

Similarly, if the functional elements in a gravel habitat required by an organism are the interstitial spaces between the gravel itself or the opportunities for cryptic coloration, then the removal of attached epifauna as a result of fishing activity may not be an adverse impact on the habitat of that species. Even if the epifauna is important to some species, the impact may not be adverse or significant if the primary epifaunal species are fast-growing and are able to quickly repopulate an area following an impact. There are also cases where a fishing gear impact is clearly significant and adverse to the habitat of fish species. If attached epifauna (on either gravel or rocks and boulders) provide an additional functional element for some species by providing higher levels of habitat complexity (which contribute to survival and/or added prey opportunities), then the reduction or removal of this epifauna would affect the habitat's function. If it takes a long time to regenerate and repopulate an area (such as in slow-growing sponge and coral species), then this effect would be compounded. The crushing and removal of "clay pipe" habitat is a long-term impact (Valentine 1998) and could have implications for shelter-seeking species such as redfish in areas where fishing affects this habitat type.

5.4.2 Habitat impacts of management alternatives under consideration

Reductions in fishing effort are one mechanism known to minimize the adverse impacts on habitat associated with fishing practices by reducing the frequency and intensity of fishing gear use. The modification of fishing gear, that which reduces the weight of fishing gear or the amount of fishing gear in contact with the bottom, is another mechanism known to reduce the adverse impacts on habitat associated with certain fishing activities. Ideally, any reductions that may result from this framework adjustment will be focused on the habitats of Gulf of Maine and Georges Bank that have been designated as EFH by the Council.

The types of measures that could be expected to provide some benefit to the habitat of the region by directly reducing fishing effort: days-at-sea (DAS) reductions, gear restrictions, temporary (rolling) fishing closures, and year-round fishing closures. Measures that do not directly reduce fishing effort, but rather manage how the effort is distributed among the fishing industry or the size class of fish targeted by the industry, such as mesh size restrictions, minimum fish size restrictions, bycatch reduction methods, or monitoring programs would not be expected to have a direct effect on the habitat of the region. Measures that increase the fishing pressure in a specific area, such as through the

reopening of a previously closed area or a part thereof, may increase the adverse impacts on EFH above the baseline set with the submission of Amendment 1 to the Monkfish FMP (the Omnibus EFH Amendment). The effect of trip limit adjustments depends on the response of individual fishermen to the regulation, such as the location and magnitude of effort redirection, changes in DAS utilization rates, and other behavioral responses.

A significant factor in understanding the potential impacts of the monkfish fishery is that almost all fishing effort for monkfish is a subset of the fishing effort managed and allowed under two other fishery management plans, the Northeast Multispecies FMP and the Sea Scallop FMP. Vessels that do not also hold permits in either scallop or multispecies fisheries account for about 10 percent of total landings. DAS allocated under the Monkfish FMP are not additive with DAS allocated under the Groundfish or Scallop FMPs. For example, a vessel allocated 88 groundfish DAS and 40 monkfish DAS does not have a total of 128 DAS to fish, but rather can use up to 40 of their groundfish DAS to fish for monkfish.

Reductions in monkfish DAS may simply result in a shift back to scallop, groundfish or other fisheries, depending on the profitability of increased effort in those fisheries. The overall amount of effective fishing effort in the region would not change. Thus, the specific changes to monkfish fishing that may be proposed in any change to the Monkfish FMP must be considered in the context of the overall fishery management programs for groundfish and scallops.

5.4.2.1 Preferred alternative

The proposed action is to implement no changes to the current measures in the NFMA, and in the SFMA vessels in Categories A and C will have a trip limit of 550 lbs. (tail weight, per DAS), while vessels in Categories B and D will have a trip limit of 450 lbs. (tail weight, per DAS). There will be no change in the DAS allocation of 40 DAS per vessel. What this means is a lower trip limit, although it represents an increase for gillnetters from the 300 they were allocated in 2000, but a decrease from the 1,500 and 1,000 they now have under the court order. Gillnetters may reduce the number of nets deployed to accommodate the changed trip limits. Trawl trips will be most affected, since they have a reduction in trip limits that may make it less profitable for the offshore directed fishery to operate. Vessels with groundfish permits, however, will likely redirect those monkfish days back to groundfish; therefore, no net change in overall fishing effort is anticipated.

Generally, changes to measures such as trip limits would not be expected to have a direct effect on the habitat of the region. The trip limits could have an indirect effect on the habitats within the monkfish fishing area by controlling the amount of fishing effort associated with each DAS, assuming that fishing effort ceases as soon as the trip limit is reached and does not continue with the intent of "highgrading." There are no direct changes to allocated fishing effort proposed in this alternative (through the DAS program), so this alternative would not be expected to have an effect on the overall amount of fishing effort expended in the Gulf of Maine, Georges Bank or the Mid-Atlantic. Overall, none of the measures proposed in this alternative suggest any increase

in the potential adverse effects to any EFH associated with the fishing activities managed under the Monkfish FMP above the baseline established with the approval of the Omnibus EFH Amendment in March 1999. With no change to the effective fishing effort allowed under the Monkfish FMP through DAS, there can be no assumed reductions in impacts to habitat. Any change in actual fishing effort that may result from the measures implemented in this framework adjustment (due to less economical trips, for example) will almost certainly be offset by increases in fishing effort under either the Northeast Multispecies FMP or the Scallop FMP.

5.4.2.2 No-action alternative

The pre-programmed management measures and TACs in the FMP for Year 4 would eliminate the directed fishery for monkfish. This alternative would not require the Council to take any action because the FMP already contains the default measures.

Because this alternative would result only in the continuation of the measures proposed in the Monkfish FMP, there can be no changes to the level of adverse effects to any EFH that may be associated with the fishing activities managed under the plan. Relative to the preferred alternative, there are also no changes to the level of adverse effects to EFH expected under the framework adjustment. This is due to the fact that even if all monkfish DAS are eliminated, vessels would still be able to fish under their groundfish or scallop DAS allocations. Because the DAS allocated to vessels under the Monkfish FMP are not additive with their scallop or groundfish DAS, reductions in monkfish DAS will only result in a shift back to groundfish or scallop fishing. The overall amount of effective fishing effort in the region would not change.

5.4.2.3 Other alternatives considered

5.4.2.3.1 Adjust trip limits and DAS to achieve Years 2 and 3 TACs

Generally, changes to measures such as trip limits would not be expected to have a direct effect on the habitat of the region. The trip limits could have an indirect effect on the habitats within the monkfish fishing area by controlling the amount of fishing effort associated with each DAS, assuming that fishing effort ceases as soon as the trip limit is reached and does not continue with the intent of "highgrading." As such, implementation of this alternative would not be expected to have any direct effect on the habitat of the region.

5.4.2.3.2 Count DAS as 24-hour days

Changing how DAS are counted may offer an indirect mechanism to reduce fishing effort, but most vessels are likely to adapt their fishing operations and practices to maximize their fishing opportunity, in effect eliminating any potential indirect reduction of effort. As such, implementation of this alternative would not be expected to have any direct effect on the habitat of the region.

5.4.2.3.3 Individual vessel quotas

This alternative would allocate to all fishing vessels an allowable amount of monkfish landings equal to the product of the trip limit and the allocated DAS. Because essentially

the same overall amount of monkfish landings would be allowed, this measure is unlikely to have any direct effect on the habitat of the region.

5.4.3 EFH assessment

This essential fish habitat (EFH) assessment is provided pursuant to 50 CFR 600.920 of the EFH Final Rule to initiate EFH consultation with the National Marine Fisheries Service.

5.4.3.1 Description of the proposed action

See Section 3.0 for a description of the proposed action. The activity described by this proposed action, fishing for monkfish, occurs throughout most of the area under the jurisdiction of the New England and Mid-Atlantic Councils, including the Gulf of Maine, Georges Bank, the Southern New England shelf, and the Mid-Atlantic. The range of this activity occurs across the designated EFH of all New England Council-managed species. The range of this activity also occurs across the designated EFH of most species managed by the Mid-Atlantic Fishery Management Council and species managed under the NMFS Highly Pelagic Species FMP.

5.4.3.2 Analysis of the effects of the proposed action

This action proposes to change the trip limits for trawl and non-trawl sectors of the monkfish fishery in order to achieve the same level of catch as the measures that were in place prior to the Federal court order that eliminated the gear-based differential trip limits. This action includes a one-year delay in the Year 4 default measures.

This action does not propose to increase current levels of fishing activity in the U.S. EEZ. The other measures proposed in this action would have no impact on habitat. None of these proposed actions will have any direct adverse impacts on the EFH of any managed species relative to the baseline conditions established under Amendment #1 to the Monkfish FMP (the Omnibus EFH Amendment).

5.4.3.3 Conclusions

The actions proposed under this framework have no potential adverse effects on the EFH of any species managed by the New England, Mid-Atlantic or South Atlantic Fishery Management Councils or the National Marine Fisheries Service. Because there are no potential adverse impacts associated with this action, an EFH consultation is not required.

5.4.3.4 Proposed mitigation

None required.

5.4.4 References

- Auster, P.J. and R.W. Langton. 1999. The effects of fishing on fish habitat. In L.R. Benaka, editor. *Fish Habitat: Essential fish habitat and rehabilitation*. American Fisheries Society, Symposium 22, Bethesda, Maryland.
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5.5 Threatened, Endangered and Other Protected species

5.5.1 Background

Section 8.1.9 of the Monkfish Fishery Management Plan described the threatened and endangered and other protected species that inhabit the monkfish management unit as

well as those that could potentially interact with the fishery. Their status has been most recently updated in the fifth of the series, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2000* (Waring *et.al.* 2000). The report contains updates to 28 of 60 Atlantic and Gulf of Mexico assessments. Additionally, information on human interactions affecting right, humpback, fin and minke whales stocks was re-reviewed and updated. This document also constitutes recent peer-reviewed information on marine mammal fishery-related serious injury and mortality for fisheries managed by the NEFMC, including the monkfish fishery.

Information on sea turtle status is contained in the 1995 and 1997 status reviews of listed turtles prepared jointly by NMFS and the U.S. Fish and Wildlife Service (NMFS and USFWS 1995). More current information on interactions involving endangered and threatened species within the management unit can be found in the June 2001 Biological Opinion (Opinion) for the Monkfish FMP.

According to NMFS's conclusion in the Opinion, the monkfish fishery is likely to adversely affect, but not jeopardize, the continued existence of humpback whale, fin whale, blue whale, sei whale, sperm whale, green turtle, leatherback turtle, loggerhead turtle and Kemp's ridley turtle. NMFS based its findings on previous patterns of marine mammal and turtle interactions with gear used in this fishery.

Further, the Opinion concluded the numbers of right whales captured, injured or killed in the fisheries managed under the FMP would reduce the numbers and reproduction of this species in a way that would be expected to appreciably reduce their likelihood of surviving and recovering in the wild. Consequently, the Opinion outlined a Reasonable and Prudent Alternative (RPA) that is expected to avoid the likelihood of jeopardizing right whales. The RPA includes components that may minimize the overlap of right whales and monkfish gear, expand gear modifications to the mid-Atlantic and southeastern U.S. waters, continue gear research and monitor the implementation and effectiveness of the RPA.

Because the Gulf of Maine harbor porpoise is the most common cetacean species caught in commercial fishing gear in the Northeast, including sink gillnet gear used in the monkfish fishery, it is discussed as a species of concern in this document. It is the subject of a Take Reduction Plan (TRP) implemented by NMFS in December 2, 1998. To reduce takes, the TRP targets monkfish gillnet, as well as multispecies, dogfish and mid-Atlantic coastal gillnet fisheries. TRP requirements include the use of acoustic deterrents ("pingers") on nets according to specified protocols, time/area closures and gear modifications. Measures implemented through the Harbor Porpoise TRP have significantly reduced takes to numbers below the Potential Biological Removal level allowed for this species.

All cetacean and sea turtle species mentioned in this section occur at some time of the year in the action area. Right and humpback whales are the most likely to concentrate, feed and also transit through areas where monkfish gear is in use. The four turtle species also exist in the action area, but historically, loggerheads have been the most likely to

interact with monkfish gear. Harbor porpoise bycatch occurs in monkfish gear from late winter through early spring in the Mid-Atlantic region, the area in which monkfish management measures are subject to change.

5.5.2 Proposed Action and Alternatives

As described more completely in Section 3.0, the Councils propose to modify monkfish management measures for FY 2002, an action that would delay for a period of one year the default measures in the FMP that call for eliminating the directed fishery in Year 4 of plan implementation. This change also would incorporate elimination of the differential trip limits for trawl and non-trawl gear mandated by a federal court order and discussed earlier in this document (see Section 1.2.2).

The proposed action is based on the MMC's conclusion that despite that Year 2 TACs were exceeded, and that no new measures were implemented in Year 3, the overall decline in landings from pre-FMP levels, coupled with increased or stable survey indices for 2000-2001 suggest that monkfish stocks may have increased (in the NFMA) or stabilized (in the SFMA) in recent years. The MMC also commented that the default measures could be overly restrictive and that it would not recommend the no action alternative, which would allow those default measures to take effect. Further, the group agreed that at present there was little basis on which to develop adjustments to the current plan.

5.5.2.1 Preferred alternative

Three scenarios are discussed in Section 3.1.2.2 that represent the Councils' preferred alternative (Scenario 3a) and alternatives not adopted (Scenarios 3c and 3e). These are based on either modifying trip limits (3a) or modifying DAS allocations (3c), or both (3e) to achieve the FY2000 landings levels for the SFMA. The NFMA is not affected by this proposal given that a trip limit was not be in effect in the area during FY2000 (Section 3.1.2.1).

5.5.2.2 No action alternative

All plan measures would remain unchanged from Years 2 and 3 except for the DAS and associated directed fishery trip limits, which would be eliminated. Incidental catch limits assigned by permit category, gear type and vessel size are described in Section 3.2.2. These default measures for Year 4 would not require the Councils to take any action to implement since they were included in the original FMP.

5.5.2.3 Other (non-preferred) alternatives

The Councils also considered using the Year 2 and 3 specification of OY and management area TACs as an alternative to the preferred and no action alternatives. In addition to the management alternatives dealing with allocations of DAS and trip limits (Section 3.3.2), additional alternatives are presented (Sections 3.3.2.3 and 3.3.2.4). One provides for DAS to be counted as 24-hour days for all vessels, with DAS allocations adjusted to achieve the goals with permit category trip limits of 1,500 and 1,000 pounds (eliminating the differential gear-based trip limits). The second is an individual vessels quota allocation system.

As mentioned earlier, the management measures contained in the Monkfish FMP were discussed in detail in the June 2001 Biological Opinion. The Opinion determined that the effort control measures in the FMP, put in place to end overfishing within 4 years and rebuild stocks within ten years of plan implementation, have the greatest beneficial impact on threatened and endangered species. In its analysis of the monkfish fishery as it currently operates, the Opinion also identified sink gillnet gear as the gear type in the fishery that is most likely to adversely affect threatened and endangered species. With implementation of the FMP, monkfish gillnet effort was reduced considerably, and was anticipated to be drastically reduced by the Year 4 default measures. The recent court decision has somewhat altered these previous conclusions in that monkfish gillnet effort has been allowed to increase in the SFMA from 300 pounds per DAS to 1,000 or 1,500 pounds per DAS, depending on the permit category of the vessel. Given these points, some statements can be made about the alternatives under consideration.

Without detailed analysis of VTR data, it is difficult to ascertain meaningful differences in the alternatives involving various DAS limits in combination with trip limit scenarios. Clearly, reduced DAS combined with reduced trip limits from current levels would likely benefit marine mammals and sea turtles. The default, or no action alternative, then would provide the most direct benefit to all protected species of all the scenarios proposed, unless the effort shifted into other fisheries with marine mammal interactions.

Differences among the other alternatives involving the same or reduced DAS, combined with various trip limits, both at the status quo level or lower, are neither distinct nor easily quantifiable. This is particularly true when the differences in trip limits are a matter of a few hundred pounds. Benefits are most commonly determined by decreases in the amount of gillnet gear and/or the amount of time the gear is fished. It is generally assumed that there will be fewer gear/protected species interactions if there is less gear in the water overall.

Maintaining DAS at 40 and reducing the trip limit, as described in the preferred alternative, to “stretch out the TAC”, could result in less gear in the water and potentially fewer interactions with protected species. It would not be cost effective to set quantities of gear to catch 200 to 500 pounds. If fishing activities are concentrated in high-use areas and time period for endangered whales and sea turtles, and other protected species, however, the potential benefits accruing as the result of any fishing effort reduction measures could be minimal or non-existent.

Conversely, if days are reduced and trip limits maintained at the 1,000 or 1,500-pound level, the potential for interactions could increase if fishermen put out more gear in response to such a scenario, especially given the very limited number of DAS available in these alternatives.

The alternative allowing DAS to be counted as 24-hour days for all vessels was among the Conservation Recommendations contained in the June 2001 Biological Opinion for the Monkfish FMP. While under consideration in this framework, the Councils noted

earlier in this document that such a change would also require simultaneous changes to the Sea Scallop and Multispecies FMPs to maintain a consistent DAS counting system across the plans. Further consideration could be given to this alternative during the development of Amendment 2.

Given that an individual vessel quota system is neither well-developed nor fully described in detail in this framework, an evaluation of its impacts on protected species is not possible at this time.

5.5.3 Mitigation of Impacts

Several factors may help mitigate the effect of the potential for substantially increased gillnet effort in some of the management scenarios. Regardless of the alternative selected, at a minimum, overall effort is capped at current levels for the one-year period this action will be in place. The establishment of the DAS and trip limits for the various permit categories, as well as the 160 net limit accomplishes this.

More relevant to the sink gillnet issue is one Take Reduction Plan now in place. The monkfish measures in the Harbor Porpoise TRP mandate tie-down nets for all Mid-Atlantic waters and a net cap of 80 nets, regardless of the net numbers allowed in the FMP. Time/area closures in which monkfish gear is prohibited altogether include New Jersey waters out to 72°30' W. longitude (including the Mudhole) from April 1-20; the New Jersey Mudhole itself from February 15 through March 15; and Mid-Atlantic waters off the states of Maryland, Delaware, Virginia and North Carolina to 72°30' W. longitude from February 15 through March 15. Combined with required gear modifications, this program currently provides a high level of protection for porpoise and possibly other small cetaceans that could interact with the monkfish gillnet fishery.

Additionally, it is anticipated that the RPA for the Monkfish FMP will be in effect well before implementation of any measures proposed in this framework adjustment. This RPA was used to implement rules for the Atlantic Large Whale Take Reduction Plan (ALWTRP). With a projected implementation date of January, 2002, the RPA calls for: gear modifications to be expanded to the Mid-Atlantic and Southeast regions; Seasonal Area Management (SAM) in which more extensive gear modifications will be required during the January through June period in which right whales move from Cape Cod Bay to the Great South Channel and then west to east along the northern edge of Georges Bank; and Dynamic Area Management which would allow the closure of discrete areas to protect concentrations of right whales outside of designated critical habitat or SAM areas.

Monitoring of possible sea turtle interactions also will be addressed. Following a mid-May to mid-June, 2000 closure of the large mesh gillnet fishery, including the monkfish fishery, along the Virginia and North Carolina coasts and in the mouth of the Chesapeake Bay in response to two concentrated standing events in which 280 turtles washed ashore (including a number of animals entangled in large mesh gillnet gear), NMFS implemented an extensive sea turtle monitoring program. The objective was to detect turtle mortality in the monkfish gillnet fishery early and to curtail fishing quickly if turtle takes met or exceeded authorized levels. The Incidental Take Statement included in the

December, 1998 Biological Opinion for the Monkfish FMP provided for 6 loggerheads observed taken, with no more than 3 dead, and up to one individual lethal or non-lethal take of Kemp's ridley, green or leatherback turtles.

If triggered, notice of a 30-day closure would be published in the *Federal Register* in all offshore Atlantic waters between the North Carolina/South Carolina border and the line of latitude lying 60 nautical miles north of the position of the northernmost documented turtle take. The closure would include all vessels using large mesh gillnets to target monkfish.

During the 2001 season, monkfish trips were observed in North Carolina, from late March to late April 2001 (after which period the monkfish fishery moves north). One dead loggerhead turtle was taken on 48 observed trips. By May, 2001 observers on 78 traditional monkfish trips in Virginia and on 24 additional trips completed as part of the Experimental Blackfin Monkfish fishery had recorded takes of one dead and three live turtles. The dead animal was taken in the Experimental Fishery. The events of the previous year, thought to be largely a consequence of oceanographic and water temperature conditions, were not repeated and a closure was not triggered in 2001.

5.5.4 Conclusion

Draft conclusions indicate that the monkfish fishery and measures proposed for Framework Adjustment 1 to the Monkfish FMP, in combination with the implementation of the RPA contained in the recent Biological Opinion for the FMP and other mitigation measures, may affect, but are not likely to jeopardize the continued existence of right whales or other endangered or protected species discussed in this document. Furthermore, the NEFMC has determined that, at this writing, neither the fishery nor the proposed actions will alter or modify right whale critical habitat.

5.5.5 References

National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1995. Status reviews for sea turtles listed under the Endangered Species Act of 1973. National Marine Fisheries Service, Silver Spring, MD, 139 pp.

Waring, G. T., J.M. Quintal, S. L. Swartz, Editors; with contributions from N. B. Barros, P. J. Clapham, T. V.N. Cole, C. P. Fairfield, L. J. Hansen, K. D. Mullen, D. K. Odell, D. L. Palka, M.C. Rossman, U. S. Fish and Wildlife Service, R.S. Wells, and C. S. Young. 2000. U.S. and Gulf of Mexico marine mammal stock assessments -- 2000. NOAA Tech. Mem. NMFS-NE-162, 303 pp.

5.6 Cumulative Impacts

5.6.1 Preferred Alternative

The preferred alternative maintains monkfish landings at fishing year 2002 landing levels. As a result, the preferred alternative will maintain fishing effort at or below current levels. Based on the results of SAW 34, maintaining effort at this level is expected to end overfishing, as specified in the FMP. Furthermore, NMFS is currently in

the process of implementing restrictive measures for the Northeast multispecies fishery in response to a Federal court decision (Conservation Law Foundation *et al.* v. Evans). These measures are likely to have positive implications for the monkfish resource in the NFMA and the SFMA.

As stated in Section 5.3, the reduction in trip limits in relation current management measures for trawl vessels fishing in the SFMA may adversely impact these vessels; in particular those vessels that participate in the offshore trawl fishery. However, the economic analysis presented in Section 5.2 indicates that the preferred alternative will have less of an impact on vessels than the non-preferred alternative or the no action alternative. Any efforts to reduce fishing effort in the multispecies fishery may further increase any social or economic impacts that result from the implementation of the preferred alternative.

5.6.2 Non-preferred Alternative

This action would reduce fishing effort to achieve the TAC level established for Years 2 and 3 of the FMP. This would result in a reduction in overall effort compared to current levels. In addition, any efforts to reduce fishing effort in the multispecies fishery is likely to further any biological benefits resulting from this action.

The social and economic impacts resulting from the implementation of this alternative would be greater in relation to the preferred alternative due the lower trip limits, but less than the impacts resulting from maintaining the restrictive Year 4 default measures. Similar to the preferred alternative, these impacts are likely to increase as a result of any restrictive management measures implemented in the multispecies fishery.

5.6.3 No Action Alternative

This action would eliminate the directed monkfish fishery, and establish more restrictive incidental catch limits for most fishing sectors in both management areas. This would result in a substantial reduction in overall effort compared to current levels. As with the preferred and non-preferred alternatives, the implementation of restrictive management measures in the multispecies fishery would likely increase the potentially significant biological benefits of this action.

Substantial social and economic impacts would likely result from the implementation of this alternative. Because the no action alternative would eliminate the directed monkfish fishery, any monkfish landings would occur in conjunction with the scallop or multispecies fishery. Therefore, any reductions in fishing effort in either the multispecies or scallop fishery would further increase the social and economic impacts resulting from this action.

6.0 Finding of No Significant Impact (FONSI)

National Oceanic and Atmospheric Administration Order (NAO) 216-6 (revised May 20, 1999) provides nine criteria for determining the significance of the impacts of a proposed action. These criteria are discussed below:

1. *Can the proposed action be reasonably expected to jeopardize the sustainability of*

any target species that may be affected by the action?

The proposed action is not expected to jeopardize the sustainability of any target species that may be affected by the action. The proposed action maintains fishing effort at the same level as fishing year 2000, or Year 2 of the FMP. Based on the results of SAW 34, maintaining effort at this level of landings is expected to end overfishing, as specified in the FMP.

- 2. 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 Act and identified in FMPs?*

The proposed action is not expected to allow substantial damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMP. The area affected by the proposed action in the monkfish fishery has been identified as EFH for species managed by the FMPs for Atlantic Surf Clam and Ocean Quahog; Northeast Multispecies; Monkfish; Atlantic Herring; Atlantic Sea Scallop; Summer Flounder, Scup, and Black Sea Bass; Atlantic Mackerel, Squid, and Butterfish; Bluefish; Spiny Dogfish; Tilefish; Atlantic Billfish; and Atlantic Tunas, Swordfish, and Sharks. The proposed action will modify the trip limits for trawl and non-trawl vessels in the SFMA to be equivalent while achieving 2000 landing levels. The net result is a decrease in the trip limit for the trawl vessels and a slightly increased trip limit for non-trawl (i.e., gillnet) vessels that fish in the SFMA. Therefore, action is likely to decrease effort for vessels using trawl gear in the SFMA, the gear type most likely to adversely affect coastal and ocean habitats and/or EFH. Because fishing effort by trawl vessels is expected to remain constant or decrease, the proposed action in the context of the fishery as a whole will not have an adverse impact to EFH. Therefore, an EFH consultation is not required.

- 3. 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 a substantial adverse impact on public health or safety. The impact of the proposed action may be greater on trawl vessels operating in the SFMA that fish further from shore because the decreased trip limits for this fishing sector may make it no longer profitable. As a result, these vessels are likely to fish closure to shore, potentially reducing time at sea. Reduced time at sea could have a positive impact on the health and safety of the fishermen, potentially leading to positive impacts to their families and the community. However, fishing closure to shore could result in potential gear conflicts with other fishermen that traditionally fish in these areas. This could result in negative impacts to the health and safety of monkfish fishermen, their families and the community. However, the proposed trip limits would be in effect for only one year while the Council develops revised management measures in conjunction with revised overfishing definitions and a revised stock rebuilding schedule through Amendment 2 to the FMP.

4. *Can the proposed action be reasonably expected to have an adverse impact on endangered or threatened species, marine mammals, or critical habitat of these species?*

A formal Section 7 consultation for this action was initiated on March 7, 2002. NMFS has determined that reinitiation of the section 7 consultation is necessary given that the Framework 1 measures may result in adverse effects to ESA-listed cetaceans and sea turtles that were not considered during the June 14, 2001, consultation on the FMP. Consultation will be complete on or before April 22, 2002, prior to enactment of these regulations. In addition, a memo has been prepared for the record stating that NMFS has determined, under Section 7(d) of the ESA, that there will be no irreversible or irretrievable commitment of resources that would foreclose the formulation or implementation of any reasonable and prudent alternatives during the reinitiation of the ESA Section 7 consultation for the monkfish fishery.

5. *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?*

The proposed action is not expected to result in cumulative effects on target or non-target species. This action proposes to maintain fishing effort at or below current levels and is temporary, lasting only one year. The only fishing sector to be potentially adversely impacted by the proposed measures is the offshore trawl fishery. According to industry representatives, the proposed measures will essentially eliminate this fishery since the allowable trip limits in the SFMA would not cover the cost of an offshore trip. As a result, the proposed action could result in offshore trawl vessels shifting their effort to other species, such as summer flounder, scup, or black sea bass. However, existing constraints in those fisheries, such as limited vessel participation (moratorium permit system) and fishing quotas, would restrict the amount of effort to be displaced into those fisheries, thereby minimizing the adverse effects of the proposed action on those fishery resources.

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

The proposed action is not expected to jeopardize the sustainability of any non-target species. As discussed in number 5, offshore trawl vessels targeting monkfish may shift their fishing effort to other fisheries. However, sufficient constraints exist in those fisheries to minimize the ability of monkfish trawl vessels to redirect their fishing effort to a previously non-targeted fishery to the extent that the shift in effort would jeopardize the sustainability of that resource. Furthermore, the proposed measures would last only one year, likely resulting in any redirection of effort to be limited in duration.

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

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area because the proposed action would maintain fishing effort at or below current levels.

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

As discussed in Section 5.0 of this EA, the proposed action is not expected to result in significant social or economic impacts, or significant natural or physical environmental effects. Therefore, there are no significant social or economic impacts interrelated with significant natural or physical environmental impacts.

9. *To what degree are the effects on the quality of the human environment expected to be highly controversial?*

The measures contained in this action are not expected to be highly controversial. Framework 1 is considered to be somewhat controversial due to the restrictive trip limits being implemented in the SFMA, especial given the potential negative impacts to the offshore trawl sector. However, this action is considered to be far less controversial, from an industry perspective, than allowing the resistive Year 4 default measures to take effect.

FONSI Statement

In view of the analysis presented in this document and in the EIS for the FMP, the measures contained in Framework 1 will not significantly affect the quality of the human environment, with specific reference to the criteria contained in Section 6.02 of NOAA Administrative Order NAO 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act (NEPA). Accordingly, the preparation of a Supplemental Environmental Impact Statement for the proposed action is not necessary.

Assistant Administrator for
Fisheries, NOAA

Date

7.0 Endangered Species Act and Marine Mammal Protection Act

7.1 Endangered Species Act (ESA)

Section 7 of the Endangered Species Act 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 NEFMC has concluded that Framework Adjustment 1 to the Monkfish FMP and the prosecution of the monkfish fishery is not likely to jeopardize any ESA-listed species or alter or modify any critical habitat, based on the discussion of impacts in this document. The NEFMC is

seeking the concurrence of the National Marine Fisheries Service in this matter. For further information on the potential impacts of the fishery and the proposed management action on listed species, see Section 5.5 of this document.

7.2 Marine Mammal Protection Act (MMPA)

The NEFMC has reviewed the impacts of the Monkfish FMP on marine mammals and has concluded that the management actions proposed are consistent with the provisions of the MMPA, and will not alter existing measures to protect the species likely to inhabit the monkfish management unit. For further information on the potential impacts of the fishery and the proposed management action on marine mammals, see Section 5.5 of this document.

8.0 Regulatory Impact Review and Initial Regulatory Flexibility Analysis

This section provides the analysis and conclusions to address the requirements of Executive Order 12866 and the Regulatory Flexibility Act (RFA). Since many of the requirements of these mandates duplicate those required under the Magnuson-Stevens Act and NEPA, this section contains references to other appropriate sections of this document. The following sections provide the basis for determining whether the proposed action is significant under E.O. 12866 and how it impacts small entities.

8.1 Regulatory Impact Review (E.O. 12866)

NMFS requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions that either implement a new FMP or significantly amend an existing plan. This RIR is part of the process of preparing and reviewing FMPs and provides a comprehensive review of the changes in net economic benefits to society associated with proposed regulatory actions. This analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems. The purpose of this analysis is to ensure that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. This RIR addresses many items in the regulatory philosophy and principles of Executive Order (E.O.) 12866. It also includes a certification under the Regulatory Flexibility Act (RFA) stating that the proposed rule, if adopted, will not have a significant economic impact on a substantial number of small entities.

8.1.1 Description of management objectives

The goals and objectives of the management plan as stated in Section 3.4 of the Monkfish FMP are:

1. to end and prevent overfishing; to 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.

The proposed action is consistent with, and does not modify those goals and objectives.

8.1.2 Description of the fishery

Section 6.4 of the FMP contains a detailed description of the fishery. Section 4.0 of this document (“Affected Environment”), referencing the 2000 SAFE Report (Appendix I) and updated community statistics in Appendix III, contains an updated description of the fishery using the best and most current data available.

8.1.3 Statement of the problem

The problem being addressed, as described in Section 1.2 of this document (“Background”), is a combination of factors, including

- the existence of restrictive default measures for Year 4 that would eliminate the directed fishery
- the unreliability of current fishing mortality estimates and inappropriateness of some biological reference points as stated by SAW 31, and
- the impact of increased non-trawl trip limits resulting from the federal court decision without commensurate or proportional reductions in other measures or overall effort controls.

The purpose and need for this action is described in Section 2.1.

8.1.4 Description of the alternatives

Section 3.0 of this document contains a description of the alternatives considered, including a “no-action” alternative.

8.1.5 Economic analysis

Section 5.2 of this document contains the economic analysis of the proposed action and alternatives. Additional socio-economic analysis is presented in Section 5.3.

8.1.6 Determination of significance under E.O. 12866

NMFS 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.*

The economic impact analysis shows that across vessel and homeport categories, incomes will remain at or near current levels. While the changes to trip limits, as a result of the federal court decision, may redistribute monkfish revenues among fleet sectors, negatively affected vessels, particularly offshore trawl vessels, may recoup most, if not all lost income by redirecting their effort onto other available fisheries, particularly multispecies. Therefore, no adverse effects are expected from

this proposed action.

2. *Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency.*
The proposed action does not appear to create a serious inconsistency with any action taken or planned by another agency, since it is designed to retain catches at the recent levels.
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 does not affect any entitlement, grant or other programs.
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 does not appear to raise novel legal or policy issues since the purpose and effect of the action is to extend for one year the current fisheries management program for monkfish. The only adjustment to current regulations is based on a recalculation of monkfish trip limits to achieve current landing levels following a federal court decision that vacated gear-based differential trip limits in November, 2001.

8.2 Initial Regulatory Flexibility Analysis (IRFA)

The Regulatory Flexibility Act (RFA) requires the Federal regulators examine the impacts of proposed rules on small businesses, small organizations, and small governmental jurisdictions. A complete description of the need for, and objectives of, this proposed action taken under legal authority of the Magnuson-Stevens Fishery Conservation and Management Act and regulations at 50 CFR 648 can be found in Section 1.0 of this EA. This action does not contain any collection of information requirements, implement new reporting or recordkeeping measures, or create other compliance requirements. This action will not duplicate, overlap, or conflict with any other Federal rules.

8.2.1 Description and number of small entities to which the rule applies

The category of entities likely to be affected by this action is limited access monkfish permit holders, which are primarily small entities. The preferred alternative affects only a subset of those entities, primarily trawl and gillnet vessels fishing in the SFMA. As of March 13, 2002, there were 704 vessels holding active limited access monkfish permits, and an additional 34 vessels holding limited access monkfish permits in a Confirmation of Permit History. Approximately 160 of these vessels declared their intention to fish in the NFMA for at least 30 days during the 2001 fishing year (May 1, 2001, to April 30, 2002), thereby fishing under the less restrictive management measures of the NFMA.

8.2.2 Economic impacts on small entities resulting from the proposed action

The economic analysis in Section 5.2, particularly Table 10, discusses the effect of the proposed action on incomes of vessels in each of several subdivisions. For comparison

purposes, Table 7 shows the income effect of the no-action alternative, while Table 8, Table 9, and Table 11 show the effect of other alternatives considered on net income. Please note that the analysis did not include the effect of reduced DAS allocations, which would increase the burden on most vessels, especially those without alternative fisheries, particularly those in permit Categories A and B.

The preferred alternative would result in loss of income from fishing year 2000 levels for several vessel types. However, these losses are lower than the losses that would result from implementation of either the non-preferred or no action alternative. Under the preferred alternative, approximately 10 percent of vessels less than 50 feet in length would experience a 3.4-percent or greater reduction in income as a result of the proposed measures. However, 10 percent of these vessels would experience a 12.4-percent or greater reduction in income under the non-preferred alternative, and 54.6-percent or greater loss in income under the no action alternative. The income of vessels in other size categories would either not be affected by implementation of the preferred alternative, or would be reduced by less than 1 percent. Conversely, 10 percent of vessels greater than or equal to 50 feet in length would experience some income loss under the non-preferred and no action alternatives. For example, vessels between 50 and 70 feet in length would experience an income loss of 1.5 percent or greater under the non-preferred alternative, and a 10.2-percent or greater loss in income under the no action alternative.

Vessels holding limited access category A and B permits would be the vessels most severely impacted by the no action alternative. Under this alternative, 10 percent of these vessels would lose 100 percent of their net income from fishing. However, 10 percent of vessels in these categories would likely not be affected at all, because their landings during the 2000 fishing year were at or below the incidental catch levels allowed under the no action alternative. Impacts to these vessels would be substantially less under either the preferred or non-preferred alternatives. Under the preferred alternative, 10 percent of these vessels would experience no income loss, but 50 percent would experience an income loss of 3.1 percent or greater. Under the non-preferred alternative, 10 percent of these vessels would experience no income loss, but 50 percent would experience an income loss of 9.9 percent or greater.

Under any of the 3 alternatives, vessels that hold limited access category C permits would be the least impacted of all vessels holding limited access monkfish permits. Under the preferred alternative, category C vessels have a higher possession limit than category D vessels. Ten percent of category C vessels would experience a 0.8-percent or greater reduction in income, and 10 percent of category D vessels would experience a 2.9-percent or greater reduction in income. Under the non-preferred alternative, category C vessels also have a higher trip limit than category D vessels. Category C vessels would experience a 3.7-percent or greater loss in income while category D vessels would experience a 5.9-percent or greater loss in income. Finally, the no action alternative would result in 10 percent of category C vessels having a 25.8-percent loss in income while category D vessels would experience a 43.3-percent loss in income.

Geographically, vessels homeported in New Jersey and Delaware (combined) would be the vessels most affected under all three alternatives. Under the no action alternative, 10 percent of these vessels would experience a 72-percent or greater loss in income, while 10 percent of these vessels would experience a 12.5-percent or greater loss in income under the non-preferred alternative. Under the preferred alternative, 10 percent of the vessels homeported in New Jersey and Delaware would experience only a 2.1-percent or greater loss in income.

9.0 Coastal Zone Management Act

The Council has made an initial determination that the proposed action is consistent to the maximum extent practicable with the approved coastal management programs of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. This determination is being submitted for review by the responsible state agencies under §307 of the Coastal Zone Management Act concurrent with the submission of the proposed action to NMFS for review and implementation.

10.0 Paperwork Reduction Act

This action does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.

11.0 List of Preparers

This document was prepared through the cooperative efforts of the Monkfish Monitoring Committee members, and members of the staffs of NMFS and the New England Fishery Management Council. Contributors include:

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APPENDIX I

Stock Assessment and Fishery Evaluation (SAFE) Report
for the 2000 Fishing Year

NOTE: The 2000 Monkfish SAFE Report was distributed on November 2, 2001 and is available on the website www.nefmc.org under “Plans and Reports”. Hard copies will also be available at the 1/14/02 Committee meeting and 1/15-17/02 Council meeting.

APPENDIX II

A Study of Monkfish Trip Limits
(Analysis of trip limit options)

APPENDIX III

1. DEALER GROSS REVENUE
SUMMARY STATISTICS FOR SIA COMMUNITIES OF INTEREST

2. HOMEPORT REVENUE AND MONKFISH DEPENDENCY
INFORMATION

3. SUPPLEMENT TO THE MONKFISH FMP EIS RFA (E. THUNBERG, 1998)

**SUPPLEMENT TO
FRAMEWORK ADJUSTMENT 1
to the
MONKFISH FISHERY MANAGEMENT PLAN**

**Containing Discussion of Compliance with
National Standards and Required Provisions
of the Magnuson-Stevens Act**

Prepared by
New England Fishery Management Council
and Mid-Atlantic Fishery Management Council

in consultation with
National Marine Fisheries Service

Submitted:

March 8, 2002

The following supplement to Framework 1 of the Monkfish FMP provides a summary of the action's compliance with Magnuson-Stevens Act National Standards and Required Provisions.

(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.

This framework adjustment delays for one year the total allowable catch targets (TACs) and default management measure contained in the FMP for the fishing year May 2002 – April 2003 (Year 4). The action sets optimum yield and management area target TACs for Year 4 at the level of landings in Year 2, and adjusts the monkfish trip limits as needed to achieve the TACs while taking into consideration the effect of a federal court order vacating differential gear-based trip limits (for trawl and gillnet vessels). In accordance with FMP regulations, the New England and Mid-Atlantic Fishery Management Councils (Councils) evaluated biological reference points and the effectiveness of management measures to stop overfishing and allow for rebuilding by 2009.

Pursuant to this review, which included information from the 34th Stock Assessment Workshop (SAW), the Councils considered the fact that several of the assumptions underlying the 1997 stock assessment used to calculate initial fishing mortality reference points in the FMP have been invalidated by two more recent Stock Assessment Workshops (SAWs 31 and 34). In the fall of 2001, the Monkfish Monitoring Committee concluded that the TACs in the FMP for FY2002 are inadequate measures of the fishery performance relative to the management objectives.

SAW 34 recommended that the fishing mortality threshold be set at $F_{max}=0.2$ but did not conduct short-term projections that could be the basis for setting TACs. SAW 34 also provided a range of estimates of fishing mortality for calendar year 2000. Calendar year estimates only include seven months of the effect FY2000 management measures since the fishing year started in May (imposing DAS and trip limit restrictions). Overall 61 percent of the F estimates are ≤ 0.2 , and for the intermediate assumption about survey trawl efficiency, 33 percent of the estimates are ≤ 0.2 .

The Councils do not believe that the measures it recommends for Year 4 will jeopardize the attainment of the FMP objectives, which are to end overfishing and achieve the biomass targets associated with rebuilding by 2009. The relative exploitation index based on fishing year (FY) landings and the fall survey index declined dramatically from FY1999 to FY2000. Seasonal landings patterns suggest that even without further restrictions, fishing mortality for calendar year 2001 was lower than for calendar year 2000. While not conclusive, the recent decline in the relative exploitation index provides additional evidence that the management program is having its intended effect. While the other alternatives considered would result in lower target TACs, they would also cause a significant increase in discards due to the reduced incidental catch limits. Because of this anticipated increase in discard mortality, it is questionable whether the lower TACs would actually reduce total mortality on the stock.

The Councils will use the SAW 34 stock assessment to update overfishing definitions and implement an appropriate rebuilding program based on the best available scientific information on stock status and the effects of the current management program.

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

This framework adjustment is based 2000 Stock Assessment and Fishery Evaluation (SAFE) Report prepared by the Monkfish Monitoring Committee, on scientific information provided by the Stock Assessment Workshops (SAW 31 and 34), and on updated landings and trawl survey data through the fall of 2001. SAW 34 incorporated data from the industry-NMFS cooperative trawl survey conducted in the spring of 2001. The framework also contains updated and expanded social and economic data, in addition to that provided in the SAFE Report.

(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 action does not change the management unit and stock management areas established by the Monkfish FMP in 1999.

(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.

This measures proposed in this framework adjustment do not discriminate between residents of different states. The action would retain all of the management measures in place for the current fishing year, except for the trip limits that apply to trawl and gillnet vessels fishing in the SFMA. This framework eliminates the gear-based trip limit differential. The Councils are making the change in response to a federal court order that found the initial trip limit program in violation of this national standard.

(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.

This framework adjustment provides the widest range of opportunity for monkfish vessels to utilize the resource within the conservation constraints of the rebuilding plan. As with the previous national standard, the Councils are adjusting the trip limits in response to a federal court order that found the initial trip limit program (specifically, certain gear-based differential trip limits) to be in violation of this national standard. While the adjustment has the effect of reallocating economic opportunity among gear groups, that is its purpose.

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

The proposed action makes adjustments to one component of the current FMP (the trip limits) based on the findings of a federal court that invalidated the justification for certain gear-based differential trip limits. Other than that change, the framework does not alter the numerous fishery specific regulations in the current FMP. These various trip limits, by gear, area and permit

category exist because of the Councils' recognition of the different characteristics of the fisheries that catch monkfish, either directly or incidentally.

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

The Councils chose the recommended action from a range of alternatives based on public comments and analysis of economic impacts that showed this alternative would have the least negative impact on an industry-wide basis.

(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 Councils considered the social and community impacts of a range of alternatives, as analyzed in the framework document and as commented on by the Advisory Panel and other interested members of the public. The alternative selected retains the current DAS allocations, which would minimize the impact of the framework on shoreside infrastructure and provide the maximum opportunity for vessels to engage in monkfish fishing within the conservation limitations of the rebuilding program.

(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.

By delaying for one year the FMP default measures that would eliminate the directed fishery and reduce incidental catch limits, this action directly minimizes bycatch while allowing for continued stock rebuilding. With the stocks biomass increasing, there is an increased likelihood of increased bycatch in fisheries that are not targeting monkfish. Furthermore, the elimination of the directed fishery, under the Year 4 defaults, would cause vessels to shift effort into other fisheries and result in increased bycatch under the incidental catch limits in those fisheries. In light of the current FMP measures already in place and the purpose and context of this framework, bycatch and bycatch mortality have been minimized to the extent practicable.

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

The Councils chose the alternative that provides the maximum number of DAS to fish for monkfish within the conservation limitations of the rebuilding program. Maximizing opportunity reduces the pressure on fishermen to make choices on where and when to fish that might compromise vessel safety. The Councils received public comment in support of the preferred alternative from fishermen that cited this safety consideration.

(b) Required provisions. Any fishery management plan which is 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) of this section, or both; and

(C) consistent with the national standards, the other provisions of this chapter, 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;

See Section 3.1 of the Framework 1 document for a description of the management measures and rationale for the proposed action. See discussion above for consistency with the national standards.

(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 interests in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;

The Environmental Assessment contained in the Framework 1 document (Section 6.0) supplements the Environmental Impact Statement, Affected Environment section of the FMP, and contains updated description of the monkfish fisheries. There are no foreign fishing or Indian treaty fishing rights affected by this action.

(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;

Section 3.1.3.1 of the Framework 1 document provides detailed discussion of the rationale for the preferred alternative, with particular emphasis on present and future condition of fishery, including a summary of the information utilized in making the specification of optimum yield. As noted in the discussion of National Standard 1, the Councils do not believe that the one-year extension of the current management program will jeopardize the rebuilding program designed to achieve the MSY biomass targets by 2009.

(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 current management program is based on a stock rebuilding program that imposes effort restrictions on harvesters. These restrictions are necessary because the capacity exists for domestic vessels to fully harvest the optimum yield as specified under the rebuilding effort targets, and for U.S. processing businesses to fully utilize that catch. The total allowable landings under this rebuilding program are significantly below the landings levels of the fishery prior to FMP implementation.

(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,

The Councils prepare annually, a Stock Assessment and Fishery Evaluation (SAFE) Report which summarizes the data and information required under this provision. This information is collected as part of the annual plan review and adjustment process called for under the FMP regulations.

(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 Councils have carefully considered the impact of various alternatives designed to achieve the conservation objectives of the FMP on vessels that are constrained in their access to the fishery because of weather or other ocean conditions. They chose the proposed action from a range of alternatives, in large part because of comments from vessel operators that indicated they would rather maximize opportunity (DAS) at a lower trip limit so they would not be faced with a decision that might compromise their safety in order to operate profitably.

(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section [1855\(b\)\(1\)\(A\)](#) of this title, 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 5.4 of the Framework 1 document, with reference to Amendment 1 to the Monkfish FMP, provides the description of EFH and EFH impacts assessment in accordance with this requirement. The Councils have also initiated a review of the EFH elements of the FMP in Amendment 2 which is currently under development. Given the context of this Framework, the measures currently in place and the descriptions and analyses contained in the Framework document, adverse effects on EFH have been minimized to the extent practicable.

(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 1854(a) of this title (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 Councils work in close coordination with NMFS in the specification of scientific data which is needed for effective implementation of the plan. The Councils participate in the Stock Assessment Workshop Steering Committee, which sets terms of reference for stock assessments. Section 5.2 of the annual SAFE Report, prepared by the Monkfish Monitoring Committee, provides additional recommendations on biological, economic and social research that are needed to improve the management of the fishery. These recommendations are also considered by the New England Council's Research Steering Committee in its development of recommendations to NMFS on the disbursement of available research funds.

(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;

Section 5.3 of the Framework 1 document contains the information and analysis of the effects of the proposed action on affected communities. The Councils will be updating the social and community impacts analysis of the FMP, including the cumulative impacts of the FMP on affected communities, in Amendment 2 which is currently under development.

(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;

The FMP, implemented in 1999, contains overfishing definitions that include status determination criteria. However, as noted in Section 3.1 of the Framework document, and in SAW 33 and 34 Advisory Reports from 2000 and 2002, some of the reference points and status determination criteria have been invalidated by recent scientific analysis. One of the primary goals of Amendment 2 is to review the latest scientific information and re-specify overfishing definition reference points and status determination criteria as appropriate.

(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;*

The FMP requires permitted vessels in the monkfish fishery to submit vessel trip reports, including reporting of bycatch of monkfish and other species. In addition, the Councils rely on NMFS' Sea Sampling program to objectively monitor bycatch in all fisheries, and they have regularly supported increased observer coverage within the agency's budgetary constraints.

The proposed action would minimize discards when compared to the no action alternative, by extending for one year the directed fishery, and delaying the reduction in incidental catch limits in the Year 4 default measures. As noted in the discussion under National Standard 9 above, With the biomass increasing, there is an increased likelihood of increased bycatch in fisheries that are not targeting monkfish. Furthermore, the elimination of the directed fishery, under the Year 4 defaults, would cause vessels to shift effort into other fisheries and result in increased bycatch under the incidental catch limits in those fisheries. While further reductions in nominal effort under the no action and non preferred alternatives could be expected to accelerate the stock rebuilding, there is concern that those measures would not *de facto* achieve the expected result due to the potential for increased discarding of monkfish caught incidental to other fishing activities.

(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;

Recreational fishing on monkfish is insignificant and incidental. There is no catch-and-release program.

(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;

Section 4.0 of the Framework 1 document, the Affected Environment, describes, by reference to the SAFE Report and other information, the sectors of the fishery and the trends in landings of monkfish.

(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.

The discussion of National Standard 4 above, provides the information required under this provision.