

administering these renewals. This alternative would also have introduced some of the same complications noted above both from an administrative and a fishing vessel perspective.

Alternative 4 would have changed the monkfish fishing year to July – June. This alternative offers no clear advantage over Alternative 1, especially since the multispecies fishing year did not change under the Amendment 13 preferred alternative. Given this fact, this alternative would have introduced the same administrative complications and would have complicated vessel business planning.

6.4.2.12 DAS prorating alternatives if the fishing year is changed

Since DAS are allocated on a fishing year basis, if the Councils had decided to change the fishing year in this amendment, they would have had to adopt a procedure to allocate DAS for the partial years during the transition period. The Councils considered two alternatives are based on the prorating alternatives under consideration in Multispecies Amendment 13, adapted to the different implementation schedule of this amendment. Since the Councils took no action to change the fishing year, these administrative alternatives are irrelevant.

6.5 Social and Community Impacts

6.5.1 Introduction

This Social Impact Assessment (SIA) characterizes the magnitude and extent of the social impacts likely to result from the proposed management action as well as from other alternatives considered by the Council during the development of Amendment 2 to the Monkfish Fishery Management Plan (FMP). This SIA will identify and describe all groups of participants and the communities involved in the monkfish fishery both in this section and by reference to the Affected Human Environment section of this document. It will build on information from social impact assessments within previous monkfish actions. A social impact assessment identifies the probable positive and negative impacts from a particular action on the “quality of life” of a community. In addition to the biological and economic impact analysis, this information is provided to help fishery managers make better decisions by clarifying the social and cultural effects of the proposed action.

The mandate to consider the social impacts from proposed federal actions comes from two major laws: the National Environmental Policy Act (NEPA) and the Sustainable Fisheries Act (SFA). NEPA regulations require federal agencies to assess the proposed action’s effects on the quality of the human environment, which includes the direct, indirect, and cumulative impacts on the economic and social aspects of the community (40 CFR 1508.14). In addition, SFA contains a National Standard that requires the Council to consider the importance of fishery resources to affected communities and provide those communities with continued access to the fishery, within the constraints of the conservation objectives and condition of the resource.

National Standard 8 of the SFA 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 (*16 USC § 1851(2)(8)*).

“Sustained participation” is interpreted as continued access to the fishery within the constraints of the condition of the resource. The definition of “fishing community” is not as clear, and has been interpreted in a variety of ways. SFA defines a fishing community as one that is “substantially dependent or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such a community” (16 UCS § 1802 (16)). However, at present it is not possible to fully access fishing communities¹ due to the dearth of appropriate data in some sectors. For example, crew members and processing plant workers are generally underrepresented in the U.S. Census. Representation of crew members in management plan analysis varies across the U.S. where permits are required in some areas though not for the northeast region. Additionally, state level data reflecting dependency on fishing, needed to determine National Standard Eight status, is not available across states limiting the analysis of fishing community dependency to federal fisheries data thus resulting in an, as yet, incomplete determination of fishing community status as defined by National Standard Eight. Given this determination, fishing communities will be referred to as communities that fish or port communities except when discussed in the context of National Standard Eight.

6.5.2 Background

There is minimal recreational effort on monkfish; therefore the major foci of this SIA are the commercial fishing businesses and families that depend on the monkfish fishery. For a complete description of the commercial monkfish fishery refer to the Monkfish FMP, Monkfish SAFE Reports for FY 2000, 2001, and the Affected Human Environment Section of this Amendment, which serves as the 2002 SAFE Report, particularly the Ports and Communities Section (Section 5.3.3). The Monkfish FMP was implemented on November 8, 1999 and contained a four-year phase in of management measures to reduce fishing effort and rebuild monkfish stocks within ten years or less. The primary management measures implemented were a limited access program with effort limitations (DAS), establishment of two management areas, target TACs, trip limits, bycatch allowances, minimum fish size, gear restrictions and spawning closures.

Year 4, starting May 1, 2002, of the FMP called for the elimination of the directed monkfish fishery and reduced bycatch trip limits, unless modified during the annual review and framework adjustment process. Framework 1 was proposed to delay the default management measures for one year, modify the management measures for Year 4 based on a review of scientific information, and to account for a Federal court order

¹Fishing community is a legally defined term in National Standard Eight Guidelines and therefore should only be applied to communities that fit the definition.

vacating differential trip limits for trawl and non-trawl gear. The New England and Mid-Atlantic Councils approved Framework 1, but NMFS disapproved the framework since it determined that it did not comply with the fishing mortality rate threshold specified in the original FMP. Instead, NMFS implemented an emergency interim rule (67 FR 35928, May 22, 2002) that revised the fishing mortality rate (F) criteria in the FMP to be consistent with the recommendations of SAW 34, and implemented the management measures contained in Framework 1 because, with the amendment to the F criteria in the FMP, NMFS determined that these measures were consistent with the best scientific information available.

Amendment 2 was initiated by the Council to implement any appropriate changes to the overfishing definitions and revisions to the management program by the start of Year 5, May 1, 2003. However, because NMFS could not guarantee that even if the Councils met their November 2002 target submission date, that the agency could not guarantee the measures would be implemented by the start of FY 2003. As a result, the Councils began work on Framework Adjustment 2 to the FMP. This framework was submitted by the Councils in January 2003, and was implemented on May 1, 2003 (68 FR 22325, April 28, 2003). This framework modified the overfishing reference points as recommended by SAW 34 and established an index and landings-based method for setting annual target TACs to achieve optimum yield and biomass rebuilding goals. This framework also eliminated the default management measures established in the FMP.

The goals and objectives of Amendment 2 are presented in Section 3.0 of this FSEIS. Some of the goals of this amendment are to address problems created by the implementation of the original FMP, comply with CEQ guidelines to update environmental documents, and address FMP deficiencies in meeting Magnuson-Stevens Act requirements.

The methods used to describe the social impacts of this action including comparative analysis of NMFS data and expert interviews. First, the impacts of specific measures such as trip limits, closures etc. will be discussed in general terms. Next, the distributional impacts of these measures in each monkfish dependent port will be discussed, broken down by different permit categories and gear types. The impacts of this action were measured using five general social factor categories:

- Size and demographic characteristics of the fishery-related work force residing in each area
- Cultural issues of attitudes, beliefs and values of fishermen, fishery-related workers, other stakeholders and their communities.
- Effects of proposed actions on social structure and organization
- Non-economic social aspects of the proposed action such as life-style, health, and safety.
- Historical dependence

In addition to evaluating the impacts on individuals primarily involved in the monkfish fishery, impact analysis evaluates the impact to the overall community; therefore

monkfish activity is expressed as a percentage of the overall community's direct fishing activity in federal waters. For the purposes of this SIA, the community groups identified in the next section will serve as the primary scale of measurement. These are the communities that fish of most interest in the Amendment.

6.5.3 National Standard 8 discussion

National Standard 8 requires the consideration of impacts on fishery dependent communities, where a fishing community is “a community which is substantially dependent on or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.” Current guidance on National Standard 8 specifies that communities are place-based: geographic units such as towns and cities that might fit the Census Bureau's definition of a “place.” But actual methodological guidelines are still in the process of refinement and resources have not been directed towards the systematic and long-term collection of the kinds of baseline data needed to make such determinations in an empirically grounded way. For example, the weigh-out data and the permit files document landing and home ports, but these are not necessarily the same places where people live, where specific styles of and knowledge about fishing are practiced, or where the impacts of management are most strongly felt. It is important to note that fishing communities are not bounded or separated from the commerce and institutional apparatus of the larger cities and towns in which they are located. In fact, most fishing communities rely on a rather complicated network of business and social ties that extend well beyond the boundaries of their communities and often into other communities in the region.

Nevertheless, effort has been made in recent years to better identify the nature of fishing dependency on communities where people fish. Hall-Arbor et al., (2001) developed a series of regional dependency indices and port profiles for New England. Profiles for the Mid-Atlantic (McCay and Cieri 2000) are in the process of being updated. The following social and demographic profiles of monkfish ports also draw on census data in the sections on environmental justice and port information provided in the Affected Human Environment and Social Impact Assessment sections. These discussions, when considered together, attempt to provide sufficient information to understand the impact of the proposed regulations. Of importance to this particular management plan is the general trend toward neutral or positive outcomes.

The Hall-Arbor et al, (2001) report evaluated regional dependence in New England using several measurement metrics including the percentage of related occupations within a region; the percentage of fishing to total employed, and an index of alternative occupations. The distribution of primary monkfish ports by these indices sorted by the alternative occupation ratio summary is shown in Table 117. The indices themselves, though using different measurement metrics, show remarkable symmetry. Monkfish landings as a percentage of total landings are included as a point of reference to help ground the sub-regional indices at the port level. While the indices represent sub-regions within New England², rather than communities, they do provide a context within which

² Similar indices for the Mid-Atlantic have not yet been developed

port level dependence on fishing can be understood. Cape and Islands (Chatham) and Lower-Mid-Coast Maine (Portland) had the highest ratings for poor alternative employment options. This contrasts with Boston, which had the greatest occupational diversity.

	Homeport	4 YEAR AVE 99-02 (Monkfish Landings as a % of total Landings)	Sub-Region (Sub-NRR) (a)	% Related Occupations (a)	% of Total Employed (a)	Alternative Occupation Ratio Summary (a)
MA	CHATHAM	15	Cape and Islands	27	0.79	104
ME	PORTLAND	24	Lower-Midcoast ME	23	0.46	51
ME	PORT CLYDE	38	Midcoast ME	27	0.40	39
MA	WESTPORT	35	New Bedford/ South Shore	27	0.40	39
MA	FAIRHAVEN	11	New Bedford/ South Shore	27	0.40	39
MA	NEW BEDFORD	6	New Bedford/ South Shore	27	0.40	39
RI	LITTLE COMPTON	71	Rhode Island	24	0.31	31
RI	TIVERTON	64	Rhode Island	24	0.31	31
RI	NEWPORT	19	Rhode Island	24	0.31	31
RI	POINT JUDITH	11	Rhode Island	24	0.31	31
MA	GLOUCESTER	17	Gloucester/ North Shore	20	0.21	25
NH	PORTSMOUTH	28	New Hampshire Coast	8	0.09	9
MA	BOSTON	27	Boston	7	0.05	6
NJ	BARNEGAT LIGHT	30	na	na	na	na
NJ	POINT PLEASANT	7	na	na	na	na

Note: This table includes ports with monkfish weighout values averaging \$1,000,000 between 1999 and 2002. Weighout values are listed by registered homeport for permitted vessels. Non-federal permit/no ID category are those landings values reported by federal dealers for non-federal permit holders or where not identification was reported. Na = not available. (a) Adapted from Hall-Arbor et al. 2001.

Table 117 Primary and Major Secondary Monkfish Ports by Alternative Occupation Ratio

The distribution of monkfish landings as a percent of total port landings is presented in Table 118. While this is an indicator of the port level importance of monkfish relative to all other federally regulated species, it does not represent over-all port fishing dependency in the National Standard Eight sense as state level contributions to the dependency equation do not yet exist. Nevertheless, based on the average percentage of monkfish landings, smaller primary ports appear more dependent (Little Compton, Tiverton, and Newport RI; Port Clyde, ME) while larger ports appear less dependent on monkfish (Gloucester, Chatham, Fairhaven, and New Bedford, MA; and Point Judith, RI).

	Homeport	4 YEAR AVE 99-02 (Monkfish Landings as a % of total Landings)	Sub-Region (Sub-NRR) (a)	% Related Occupations (a)	% of Total Employed (a)	Alternative Occupation Ratio Summary (a)
RI	LITTLE COMPTON	71	Rhode Island	24	0.31	31
RI	TIVERTON	64	Rhode Island	24	0.31	31
ME	PORT CLYDE	38	Midcoast ME	27	0.40	39
MA	WESTPORT	35	New Bedford/ South Shore	27	0.40	39
NJ	BARNEGAT LIGHT	30	na	na	na	na
NH	PORTSMOUTH	28	New Hampshire Coast	8	0.09	9
MA	BOSTON	27	Boston	7	0.05	6
ME	PORTLAND	24	Lower-Midcoast ME	23	0.46	51
RI	NEWPORT	19	Rhode Island	24	0.31	31
MA	GLOUCESTER	17	Gloucester/ North Shore	20	0.21	25
MA	CHATHAM	15	Cape and Islands	27	0.79	104
RI	POINT JUDITH	11	Rhode Island	24	0.31	31
MA	FAIRHAVEN	11	New Bedford/ South Shore	27	0.40	39
NJ	POINT PLEASANT	7	na	na	na	na
MA	NEW BEDFORD	6	New Bedford/ South Shore	27	0.40	39

Note: This table includes ports with monkfish weighout values averaging \$1,000,000 between 1999 and 2002. Weighout values are listed by registered homeport for permitted vessels. Non-federal permit/no ID category are those landings values reported by federal dealers for non-federal permit holders or where not identification was reported. Na = not available. (a) Adapted from Hall-Arbor et al., 2001.

Table 118 Primary and Major Secondary Monkfish Ports as a % of Total Landings

When considering port level dependency on fishing it is also important to consider the extent to which the monkfish fishery is an adaptive versus a traditional fishery in New England and the Mid-Atlantic. This fishery has in recent years served to compensate for the loss of revenues in other fisheries (e.g., scallop fishery). As regulations impacting other fisheries become more stringent, it can be expected that port level reliance on monkfish may be on the rise.

6.5.4 Updated SIA Information

New social and community information has become available for use in assessing the social impacts of Amendment 2 alternatives. The research teams under Madeline Hall-Arber at MIT and Bonnie McCay at Rutgers University have completed updated port profiles and new ethnographic information for fishing ports in New England and for primary ports in the Mid-Atlantic (MARFIN Reports). Furthermore, several coastal states from Maine to North Carolina have provided updated information on Monkfish activity in both federal and state waters. Lastly, Council staff has collected qualitative information regarding potential impacts of measures and that input will be included when appropriate.

The majority of the social impact analysis for Amendment 2 builds on work from earlier Monkfish management plans such as the original FMP and Framework 1. The impact analysis for this SIA is qualitative in nature and is drawn from the analysis found in the Affected Human Environment section of this document. Data were compiled to describe the monkfish fleet and the distribution of the fishery across gear types, permit categories and port of landing. Primary and secondary community groups most substantially engaged in and dependent on monkfish were identified. Monkfish landings for homeports were examined for the time period 1999-2002 from the dealer weighout database. Primary community groups represent the most active ports in the monkfish fishery and were selected based on monkfish landings averaging \$1,000,000 or greater over the four year time period. Analysis found in the Affected Human Environment section included additional secondary ports based on nearness to the \$1,000,000 threshold, significant dependence on monkfish, and/or the presence of significant monkfish infrastructure. Secondary community groups consist of ports that yielded an average for the same time period of less than \$1,000,000 to \$50,000 (Table 119).

PRIMARY PORT COMMUNITIES

NEW BEDFORD	MA
BARNEGAT LIGHT	NJ
PORTLAND	ME
GLOUCESTER	MA
POINT JUDITH	RI
BOSTON	MA
PORTSMOUTH	NH
FAIRHAVEN	MA
NEWPORT	RI
WESTPORT	MA

SECONDARY PORTS COMMUNITIES

PORT CLYDE	ME	YORK HARBOR	ME
CHATHAM	MA	WAKEFIELD	RI
RYE	NH	CHINCOTEAGUE	VA
SCITUATE	MA	ROCKPORT	MA
TIVERTON	RI	CRISFIELD	MD
POINT PLEASANT	NJ	MANCHESTER	MA
CUNDYS HARBOR	ME	HATTERAS	NC
SHINNECOCK	NY	KITTERY	ME
PLYMOUTH	MA	OCEAN CITY	MD
SOUTH BRISTOL	ME	YORK	ME
WEST NEWBURY	MA	NEW LONDON	CT
WILMINGTON	DE	OWLS HEAD	ME
WARETOWN	NJ	DAVISVILLE	RI
CAPE MAY	NJ	SWAMPSCOTT	MA
NARRAGANSETT	RI	NEWPORT NEWS	VA
WOODS HOLE	MA	ISLIP	NY
HULL	MA	BARNEGAT	NJ
SAKONNET	RI	NEW HARBOR	ME
MONTAUK	NY	WANCHESE	NC
LITTLE COMPTON	RI	BAR HARBOR	ME
BLOCK ISLAND	RI	SOUTH DARTMOUTH	MA
FALL RIVER	MA	PROVIDENCE	RI
BARNSTABLE	MA	BELFAST	ME
ORRS ISLAND	ME	BATH	NC
		HARPSWELL	
HAMPTON FALLS	NH	CENTER	ME
HAMPTON	NH	BIDDEFORD	ME
NANTUCKET	MA	GREENBACKVILLE	VA
WESTBROOK	ME	BOOTHBAY HARBOR	ME
HAMPTON BAYS	NY		
KINGSTON	MA		
NORFOLK	VA		

*Based on dealer weighout data

Table 119 Primary and Secondary Port Communities

While the community groups above have been identified as communities of particular interest in this amendment, it is still important to consider the impacts of the measures in the amendment across all communities. Social impacts can be defined as the changes that a fisheries management action may create in people's way of life, cultural traditions, and the community (population's 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. An example of this in gross terms is the change in the distribution of primary and secondary ports between analysis in Table 45 of Amendment 1 which covered the period 1994-1997 and the present Table 119 which covered the period 1999-2002. While major ports such as New Bedford, Gloucester, and Boston MA; Barnegat Light, NJ; Portland, ME; and Point Judith, RI were considered the top five primary ports for Amendment 1 they again fall within the primary port category with the addition of Portsmouth, NH; Newport, RI; and Westport, MA. The additions to the primary port category are smaller ports where there tends to be a higher level of overall dependency on monkfish and less overall species diversity. While 13 ports were considered secondary ports for the first analysis, over 45 qualified as secondary ports in this analysis. This rise in port dependency, at least in part, can be contributed to the need of port communities to seek out alternative fisheries in response to ever more restrictive regulations.

Information concerning the number of vessels in each monkfish permit category, for the fishing years 1999 through 2003, in each of these primary and secondary port communities is presented in Table 120. This table also shows the percentage of monkfish vessels in each fishing port, by permit category, that were considered active in the monkfish fishery. The determination of whether or not a vessel was considered active during a given fishing year was based upon if that vessel landed at least 1 lb of monkfish during that fishing year.

Daily routines, safety, occupational opportunities, and community infrastructure are examples of social impacts that can be affected by changes in management measures. Modifications to daily routines can make long-term planning difficult. New gear requirements such as netting and some equipment must be ordered months in advance resulting in changes to daily routines when these modifications cannot be met in a time and cost efficient manner. Further the cost of making such changes may prove to be a burden for some vessel owners.

Changes in management measures that limit access to fishing may increase the likelihood of safety risks. Increased risk can result when fishermen spend longer periods at sea in order to minimize steam time to and from fishing grounds, operate with fewer crew, and fish in poor weather conditions. Occupational opportunities within the fishing industry in general appear to be largely on the decline with more people leaving the industry than entering it. When the amount of fish harvested continues to decline by what ever means, cost cutting measures such as lapsed vessel insurance can be a strategy employed by vessel owners to reduce overhead even though the potential risking in doing so may be great. Fishery management measures that further reduce occupational opportunities may

have profound social impacts on the future occupational viability of commercial fishing. Impacts that decrease occupational opportunities in turn can affect community infrastructure. More specifically, port infrastructure may be affected by the gradual loss of shore-based services essential to a full service working waterfront. Conversely, improved opportunities to fish may alleviate many of these less desirable impacts.

State	County	Port	Number of Permits							Percentage of Active Permits				
			Permit Type	99	00	01	02	03	Ave 99-03	99	00	01	02	Ave 99-02
MA	BARNSTABLE	CHATHAM	C	1	0	0	0	0	0.2	100%	0%	0%	0%	25.0%
			D	12	11	12	12	12	11.8	83%	91%	100%	92%	91.5%
			E	42	57	55	75	72	60.2	38%	37%	40%	32%	36.7%
	BRISTOL	FAIRHAVEN	C	13	16	10	9	7	11	100%	100%	90%	89%	94.7%
			D	3	4	3	3	3	3.2	67%	75%	67%	100%	77.1%
			E	9	18	19	22	18	17.2	56%	44%	37%	41%	44.4%
		NEW BEDFORD	A	0	1	0	0	0	0.2	0%	0%	0%	0%	0.0%
			C	105	105	112	107	110	108	98%	97%	96%	95%	96.7%
			D	39	38	42	42	39	40	92%	92%	90%	95%	92.5%
		WESTPORT	E	38	47	60	73	62	56	55%	55%	43%	37%	47.7%
			C	2	2	2	2	2	2	100%	100%	100%	100%	100.0%
			D	4	6	6	5	5	5.2	50%	50%	67%	80%	61.7%
	ESSEX	GLOUCESTER	E	8	14	17	16	16	14.2	0%	14%	0%	6%	5.1%
			B	1	0	0	0	0	0.2	0	0	0	0	0
			C	18	19	20	19	17	18.6	94%	95%	90%	95%	93.5%
			D	33	38	38	35	38	36.4	91%	87%	92%	100%	92.5%
	SUFFOLK	BOSTON	E	89	107	121	150	130	119	42%	37%	34%	31%	36.0%
			C	7	7	8	8	7	7.4	100%	100%	88%	100%	96.9%
			D	2	3	5	5	5	4	100%	67%	80%	80%	81.7%
ME	CUMBERLAND	PORTLAND	E	10	17	17	21	17	16.4	70%	47%	29%	19%	41.4%
			B	1	1	1	1	1	1	0%	0%	0%	0%	0.0%
			C	19	18	17	16	17	17.4	100%	89%	94%	94%	94.2%
			D	16	19	14	17	17	16.6	81%	84%	93%	82%	85.2%
	KNOX	PORT CLYDE	E	17	23	25	24	25	22.8	41%	48%	44%	38%	42.6%
			C	3	3	5	5	5	4.2	100%	100%	100%	100%	100.0%
			D	7	7	7	7	7	7	100%	100%	100%	100%	100.0%
NH	ROCKINGHAM	PORTSMOUTH	E	6	6	5	5	5	5.4	50%	33%	40%	40%	40.8%
			C	4	5	4	4	3	4	100%	100%	100%	100%	100.0%

			D	9	15	13	11	10	11.6	100%	87%	92%	82%	90.2%
			E	16	20	21	25	22	20.8	44%	65%	48%	32%	47.1%
NJ	OCEAN	BARNEGAT LIGHT	A	1	2	3	3	3	2.4	100%	100%	67%	100%	91.7%
			B	11	13	13	14	14	13	91%	85%	92%	93%	90.2%
			C	10	10	10	10	11	10.2	100%	100%	100%	100%	100.0%
			D	7	12	17	17	18	14.2	100%	100%	88%	94%	95.6%
			E	15	20	21	18	17	18.2	33%	40%	19%	11%	25.9%
		POINT PLEASANT	A	0	0	1	1	2	0.8	0%	0%	100%	100%	50.0%
			B	4	4	4	3	3	3.6	50%	75%	100%	100%	81.3%
			C	3	3	3	2	2	2.6	100%	100%	100%	100%	100.0%
			D	6	5	4	5	4	4.8	83%	80%	100%	60%	80.8%
			E	25	28	28	29	31	28.2	40%	32%	29%	24%	31.2%
RI	NEWPORT	LITTLE COMPTON	C	2	2	3	4	3	2.8	100%	100%	100%	100%	100.0%
			D	2	1	1	1	1	1.2	100%	100%	100%	100%	100.0%
			E	0	0	0	1	1	0.4	0%	0%	0%	0%	0.0%
		NEWPORT	B	0	0	1	1	1	0.6	0%	0%	100%	100%	50.0%
			C	7	4	5	6	6	5.6	100%	100%	100%	100%	100.0%
			D	5	5	5	7	7	5.8	100%	100%	80%	86%	91.4%
			E	8	16	18	14	10	13.2	38%	19%	28%	14%	24.6%
		TIVERTON	A	1	1	1	1	1	1	100%	100%	100%	100%	100.0%
			C	1	2	3	3	3	2.4	100%	100%	100%	100%	100.0%
			D	0	1	2	1	1	1	0%	100%	50%	100%	62.5%
			E	3	7	6	5	5	5.2	0%	14%	33%	20%	16.9%
	WASHINGTON	POINT JUDITH	A	2	2	2	2	3	2.2	100%	50%	50%	50%	62.5%
			C	25	25	24	24	25	24.6	100%	100%	100%	100%	100.0%
			D	18	18	21	20	20	19.4	83%	83%	90%	95%	88.0%
			E	36	43	40	42	40	40.2	42%	30%	33%	29%	33.2%

* Data source: Permit files and dealer weighout data for years 1999 through 2003 (year to date)

Table 120 Primary and Major Secondary Port Monkfish Permits and Percentage of Active Permits for 1999 – 2003 (year to date)

6.5.5 Social Impacts of the proposed action

Appendix I contains a summary table of the alternatives that were under consideration by the Councils, including a synopsis of the main elements of each alternative and the issues and impacts associated with each decision. The table also identifies the goals and objectives from Section 3.2 that each preferred alternative addresses. Appendix I also contains a second table, showing which alternatives were recommended by the Monkfish Committee, the Industry Advisory Panel, and proposed by the Councils in this submission. The following section contains a discussion and analysis of the social impacts of the proposed action.

6.5.5.1 Trip/possession limits for incidental catch

The Councils propose three changes to the allowable retention of monkfish incidental catch by vessels in various fisheries (see Section 4.1.1).

6.5.5.1.1 Incidental catch - 50 lbs. (tails) per day/150 lbs. maximum

Under the proposed action, vessels fishing with small mesh or handgear would be allowed to retain up to 50 lbs. (tail weight) for each 24-hour day, or partial day, to a maximum of 150 lbs.. This trip limit would also apply to vessels holding a limited access multispecies permit that are 30 feet or less in length that elect not to fish under the multispecies DAS. Vessels fishing under this trip limit are by definition not fishing on a DAS, so the day is counted from time of departure as entered in the vessel logbook or VMS.

The proposed alternative represents a potential improvement in profitability for vessels fishing with small mesh in the SFMA due to increased trip limits for incidentally caught monkfish. Vessels most affected by this trip limit change would be vessels fishing for squid, Atlantic mackerel, butterfish, and scup. This may result in positive social outcomes (e.g., increased profit and decreased discards) for some small-mesh vessels that take trips longer than one day. According to the information contained in Table 35, during the 2002 fishing year, 29-percent of limited access monkfish vessels also held a limited access squid/mackerel/butterfish permit, and 42-percent of limited access monkfish vessels also held a limited access scup permit. Further, during the 2002 fishing year, 8-percent of vessels holding an incidental monkfish permit (2,142 vessels) held a limited access squid/mackerel/butterfish permit (177 vessels), and 21-percent of incidental monkfish vessels held a limited access scup permit (443 vessels).

Limited access multispecies vessels in the small vessel category could also be affected by this measure. However, there are currently only 8 vessels permitted in this multispecies permit category, and these vessels likely fish single day trips due to their small size. Thus, this measure is not likely to result in increased profitability for limited access multispecies vessels in the small vessel category. Further, because there are few reported landings of monkfish by means of handgear, vessels fishing with this gear type are not likely to receive any social benefits from this measure.

6.5.5.1.2 Incidental catch - General Category scallop dredge and clam dredge

The Councils propose applying the monkfish incidental catch limit applicable to small mesh vessels (50 lbs. tail weight/day, 150 lbs. maximum, see previous section) on General Category scallop dredge vessels and clam dredge vessels.

The alternative changes the incidental catch rate from zero to levels under consideration for vessels fishing with small-mesh gear. This improves the profitability for vessels equipped with scallop and clam dredge gear and decreases discarding, both of which have positive social impacts. According to the primary port analysis by vessel size class and gear type presented in Table 62, only vessels in the large (above 70 feet in length) and medium size classes (from 50 to 70 feet in length) would be affected by this action.

6.5.5.1.3 Incidental catch - Summer flounder vessels west of 72°30'W

The Councils propose to restore the monkfish incidental catch limit on vessels fishing for summer flounder (fluke) west of 72°30'W to five percent of the total weight of fish on board, but not to exceed a possession limit of 450 lbs. (tail wt.). Under this proposal, the boundary line between the two areas would be returned to its location prior to the groundfish interim rule, or 72°30'W, and around the eastern end of Long Island.

This alternative would enable vessels involved in the summer flounder fishery that fish in the affected area to retain more incidentally caught monkfish than allowed under current regulations (50 lbs. per trip). This would result in improved profitability and thus positive economic and social outcomes. According to the information contained in Table 35, during the 2002 fishing year, 63-percent of limited access monkfish vessels also held a limited summer flounder permit and 20-percent of vessels holding an incidental monkfish permit (2,142 vessels) held a limited access summer flounder permit (433 vessels). Therefore, the proposed action could result in improved profitability for 883 vessels, or approximately 31-percent of the vessels holding either a limited access or incidental monkfish permits.

6.5.5.2 Minimum fish size

The Councils propose setting the minimum size to 11 inches (tail), 17 inches (whole) in both areas (status quo for the NFMA, reduction from 14 inches (tail) in the SFMA (Section 4.1.2).

This alternative would result in the same minimum fish size in both management areas. It would have no social impacts in the NFMA as the size would remain the same. However, economic opportunities in the SFMA would be increased by the reduction in minimum fish size in that area. Reducing fish size would also reduce discarding in the SFMA. The social impacts of the alternative are either neutral or positive.

6.5.5.3 Closed season or time out of the fishery

The Councils propose to eliminate the requirement for limited access monkfish vessels to take a 20-day block out of the fishery. It would not affect any similar requirement on vessels with permits in other fisheries where those requirements exist, such as multispecies (see Section 4.1.3).

This alternative would provide limited access Category A and B vessels with more opportunity to utilize their monkfish DAS. Thus, this alternative would provide these vessels with more flexibility to fish for monkfish when it is most economically beneficial, resulting in some social benefits to this sector of the directed monkfish fishery. This benefit may not be appears, however, since, under current rules, owners of limited access Category A and B vessels may choose the 20-day block that is most advantageous.

6.5.5.4 Offshore SFMA Fishery

The Councils are proposing establishment of an annual enrollment program for vessels wanting to fish offshore in southern New England. Vessels electing to enroll would be subject to season, area, VMS, and gear restrictions, and a 1,600 lbs. trip limits with pro-rated DAS allocations (see Section 4.1.4).

Vessels enrolled in this program would be able to increase the amount of monkfish harvested per DAS resulting in greater profitability. However, increased profits for some vessels may be tempered by the requisite cost of VMS installation. Vessels in the large size class (those greater than 70 feet in length) are more likely to benefit given the distance to fishing grounds. Furthermore, this alternative benefits large trawl vessels by allowing them to return to a level of participation in practice prior to the implementation of the FMP, having positive economic and social consequences for vessels in this size category (Table 62 and Table 63). Therefore, the social benefits for this alternative are likely to be positive for vessels in the large size class, in particular large trawl vessels.

6.5.5.5 Modification of permit qualification for south of 38°N

The Councils propose to qualify vessels for a special limited access permit if they meet the qualification criteria described in Section 4.1.5. Vessels that qualify for a permit under this proposal would operate under the same regulations applicable to other limited access vessels, except that they would be limited to fishing for monkfish (on a monkfish DAS) south of 38°20'N.

This alternative is estimated to result in five new limited access monkfish permits. The economic analysis of this alternative (Table 115) shows that the five vessels that would qualify for limited access monkfish permits under this alternative were very dependant on the monkfish fishery prior to the implementation of the FMP. This alternative would provide these vessels with the opportunity to target monkfish in Federal waters, likely resulting in increased profitability. Therefore, the social benefits associated with alternative are likely to be positive for those affected.

6.5.5.6 Modifications to the framework adjustment procedure

The Councils propose the following additions to the list of actions that can be taken under the framework abbreviated rulemaking procedure (see Section). These three items are measures for transferable DAS, measures to protect sea turtles and other species protected under the Endangered Species and/or Marine Mammal Protection Act, and measures to implement bycatch reduction devices.

6.5.5.6.1 Implement transferable MF-only DAS

Under this proposal, the Councils could consider adopting either DAS leasing or DAS sale provisions in a future framework action. Including this item in the list of framework measures under the FMP is administrative in nature, and, therefore, will not result in any social impacts at this time. The social impacts associated with transferable DAS measures considered by the Councils in the future will be fully analyzed in the associated framework action.

6.5.5.6.2 Implement measures to minimize fishery impact on protected species

The Councils propose to include in the FMP list of actions that can be taken under the framework adjustment process measures to protect sea turtles and other species protected under the Endangered Species Act and/or Marine Mammal Protection Act, as the need arises. The list of measures would include gear-specific seasonal/area closures or gear modification. Including this item in the list of framework measures under the FMP is administrative in nature, and, therefore, will not result in any social impacts at this time. The social impacts associated with protected species measures considered by the Councils in the future will be fully analyzed in the associated framework action.

6.5.5.6.3 Implement requirements to use bycatch reduction devices

The Councils propose to add “bycatch reduction devices” to the list of measures that can be implemented under the framework adjustment process in the FMP. Including this item in the list of framework measures under the FMP is administrative in nature, and, therefore, will not result in any social impacts at this time. The social impacts associated with bycatch reduction measures considered by the Councils in the future will be fully analyzed in the associated framework action.

6.5.5.7 NAFO Regulated Area exemption program

Under this proposal, a vessel issued a valid High Seas Fishing Compliance permit under 50 CFR part 300 is exempt from monkfish permit, mesh size, effort-control, and possession limit restrictions while transiting the EEZ with monkfish on board the vessel, or landing monkfish in U.S. ports that were caught while fishing in the NAFO Regulatory Area, provided the vessel complies with certain administrative and gear stowage requirements (see Section 4.1.7).

The preferred alternative for the NAFO regulated area exemption program would relieve vessels holding a High Seas Fishing Compliance Permit from the regulations governing the monkfish fishery within the U.S. EEZ. Under this program participating vessels must comply with NAFO regulations, and store their gear accordingly when transiting the U.S. EEZ. The preferred alternative will provide vessels with greater flexibility than the no action alternative. However, the social impacts of this program are uncertain since it is unknown how many vessels will participate in this program. The two factors that would affect a vessel’s participation in this program are: (1) the availability of the monkfish resource in the NAFO area, and (2) the size of the vessel.

6.5.5.8 Measures to minimize fishery impact on EFH

The Councils propose two actions specifically intended to minimize the impact of the monkfish fishery on EFH (see Section 4.1.8).

6.5.5.8.1 Southern Area trawl disc restriction

The Councils propose restricting the trawl roller gear diameter to six inches maximum on vessels fishing on a monkfish DAS (monkfish-only or combined) in the SFMA.

While nearly all SFMA trawl vessels already use this gear, the proposed action could require some trawl vessels fishing under a monkfish DAS in the SFMA to purchase new trawl gear, or modify existing trawl gear, and affected vessel owners may consider this a hardship in a climate of shrinking profitability margins. Overall, however, this alternative has no social or community impact compared to no action.

6.5.5.8.2 Closure of Oceanographer and Lydonia Canyons

The Councils propose closing Oceanographer and Lydonia Canyons to vessels on a monkfish DAS to minimize the impacts of the directed monkfish fishery on deepwater corals.

Based on 2001 VTR data only 3 trips were identified as having taken place within the Oceanographer Canyon Closure area, all reported using trawl gear, and were not directed trips. For the same year, only one non-directed trip was reported as having taken place within the Lydonia Canyon Closure area. The combined revenue from these trips was estimated to be \$68 thousand. Therefore, the social impacts resulting from the closure of these two areas are likely to be small in comparison to the no action alternative.

6.5.5.9 Cooperative research programs funding

The Councils propose two alternatives for facilitating and streamlining cooperative research programs under the FMP, one based on a DAS set-aside and the other on providing a limited exemption from DAS for vessels engaged in research, and adopted both. Up to 500 DAS could be distributed to vessels to engage in cooperative research projects under one of the two programs outlined below (see Section 4.1.9).

The DAS set-aside and DAS exemption alternatives would provide a means for streamlining the experimental fishing permit process for individuals interested in conducting monkfish related cooperative research activities outside the monkfish DAS program. Currently, researchers must provide information on the impacts of conducting their research activity outside the monkfish DAS program. However, the proposed DAS set-aside program and DAS exemption program would provide a means for analyzing the impacts associated with this additional monkfish effort up front, reducing the administrative burden on the researcher. Thus, because DAS set-aside and DAS exemption alternatives would reduce some of the administrative burden associated with conducting cooperative monkfish research activities, it could increase the incentive for individuals to conduct monkfish related research. The products of these research activities, such as bycatch reduction devices or improved information on the monkfish

resource, would likely improve the management of the monkfish fishery, resulting in some social benefits.

6.5.5.9.1 Research DAS set-aside

A pool of 500 DAS would be set aside from the total monkfish DAS allocated to limited access vessels, excluding any carryover DAS. DAS allocations to limited access vessels would be reduced by the amount of DAS set aside (500 DAS) divided by the number of permits. NMFS will distribute DAS from the pool to vessels responding to an annual cooperative research Request for Proposals (RFP).

In terms of impacts on individual monkfish fishing effort, DAS set-aside alternative would spread the research set-aside across all limited access vessels, impacting all vessels equally. In fact, the proposed set-aside amounts of 500 DAS would result in limited access vessels giving up less than 1 monkfish DAS. Thus, the social impacts of a DAS set-aside related to reductions in fishing opportunity are expected to be negligible.

The vessels involved in the cooperative research activity would obtain social and economic benefits resulting from the additional fishing opportunities. In general, cooperative research programs funded by industry-based incentives have proven to be widely supported by fishing communities and have enhanced the relationship between industry and science sectors of the fishery. Recent cooperative research projects have fostered industry “buy-in” to the science used in support of management. Furthermore, the application for a DAS set-aside would be a competitive process similar to the research set-aside program (RSA) established for many fisheries managed by the Mid-Atlantic Fishery Management Council. Although this process may be more equitable than the DAS exemption procedures, it may add to the administrative burden of the NOAA Grants process.

6.5.5.9.2 DAS Exemption

Under this proposal, DAS set-aside under the previous program, and not distributed to vessels in response to the RFP would be used to issue DAS exemptions to vessels to conduct monkfish research or surveys. The total DAS available under this program would be the remainder of the DAS pool not distributed under the annual RFP process.

Since this measure would utilize the remaining set-aside DAS that were not distributed through the RFP process to provide additional research fishing opportunities, there would be no additional social impacts resulting from reductions in fishing opportunities. Similar to the DAS set-aside program, vessels participating in monkfish research activities under a DAS exemption would obtain both social and economic benefits resulting from the additional fishing opportunities. However, unlike the DAS set-aside program, the DAS exemption program would not be a competitive process. Requests for DAS exemptions would be reviewed and issued on a first come/first serve basis. Therefore, the DAS exemption process may be less equitable than the DAS set-aside procedures, especially for monkfish research activities that are scheduled to occur later in the fishing year.

6.5.5.10 Clarification of vessel baseline history

The Councils propose to eliminate the dual vessel-upgrading baseline (length, tonnage and horsepower) that applies on any vessel that was modified or replaced between the time it received its multispecies or scallop limited entry permit and its monkfish limited entry permit (see Section 4.1.10). Under this proposal, the vessel's baseline would be that which applied when the vessel received its original federal permit (in any FMP where upgrading restrictions were implemented).

The proposed action, to align the vessel baseline specifications for a vessel's limited access monkfish vessel with that vessel's first Federal limited access permit, would only impact those limited access monkfish vessels that have more than one baseline upon which an upgrade in size, tonnage, and horsepower can be based, and would only affect those vessels that request such a change be made.

As noted in Section 6.4.1.10, a change in a vessel's monkfish baseline could either reduce or increase the value of the vessel depending on when the monkfish baseline is smaller or larger than the first limited access permit held by the vessel, resulting in either positive or negative social impacts. However, since the adjustment under the proposed action can only be made at the request of the vessel owner, presumably only those who would benefit would make such a request. The no action alternative could also reduce the value of a limited access monkfish vessel if the vessel owner has to relinquish one of its limited access Federal permits (i.e., monkfish or multispecies) in order to upgrade the vessel within the established restrictions. Therefore, the proposed action is likely to have some positive social impact compared to no action.

The magnitude of these impacts is difficult to estimate since it is difficult to determine the number of vessels that are currently restricted by the existing vessel baseline provisions, and the number of vessels that may benefit from the proposed action. Furthermore, the preferred alternative only addresses multiple baselines with respect to the monkfish fishery. Although the preferred alternative would align a vessel's monkfish baseline with the baseline for its first Federal limited access permit, a vessel could have a baseline for another limited access fishery that is not affected by this action (i.e., summer flounder, tilefish, red crab, etc.). Thus, any positive impacts related to the proposed action would only be partially realized if the vessel has an additional baseline for another fishery not affected by this action.

6.5.5.11 Social Impacts of Combined Measures

The proposed action provides opportunities to vessel owners and crew members that would not be available if the no action alternative were chosen. The social impacts of the proposed action would extend to the communities and shoreside infrastructure where these vessel owners land their fish and the communities within which they reside. This assessment of impacts suggests that there will be general tendencies toward positive social outcomes from the proposed action as compared to the no action though in some cases the benefits are modest.

6.5.5.12 Social impact of no action alternatives

The Councils propose taking no action on four measures proposed in the DSEIS. These are: the proposal to de-couple DAS usage requirements (see Section 4.2.2.1); alternatives to modify the trawl minimum mesh size (see Section 4.2.2.3); establishment of a trawl experimental fishery in the Gulf of Maine (see Section 4.2.2.12); and, alternatives to change the fishing year (see Section 4.2.2.13).

6.5.5.12.1 Impact of DAS usage no action alternative

This alternative would continue the existing effort control program in the monkfish fishery. Category C and D permits also hold either a multispecies or scallop limited access permit, and when on a monkfish DAS must also use a multispecies or scallop DAS. The social impact of this requirement remain unchanged. As with the economic impact of this alternative, the social impacts result from the decision to use a monkfish or scallop DAS to target monkfish, which are not quantifiable because of the widely varying factors affecting each operator's decision.

6.5.5.12.2 Impact of trawl minimum mesh size no action alternative

The current minimum trawl mesh size for vessels fishing on a monkfish-only or monkfish/scallop DAS is 10-inch square or 12-inch diamond codend mesh. This no action alternative would enable vessels to use existing gear and maintain current fishing strategies. As a result, the no action alternative is neutral in terms of the social impacts.

6.5.5.12.3 Impact of the experimental fishery no action alternative

Under current regulations, vessels may conduct monkfish research under an Experimental Fishery Permit, as long as the vessels comply with the research and exempted fishing provisions of the Magnuson-Stevens Act. The no action alternative would not modify this ability, and, therefore, does not have a social impact.

6.5.5.12.4 Impact of fishing year no action alternative

The alternatives that were under consideration to change the fishing year, including the no action alternative, are administrative and have minimal social impact. By maintaining alignment with the multispecies fishing year, the permit application burden on vessels and the government is minimized. In comparison to the non-preferred alternatives, the no action alternative better enables the vessel owner to plan out fishing strategies for the upcoming year, especially if the vessel has multiple DAS permits. The allocation of DAS at different times of the year for different fisheries would not only be confusing to the vessel owner, it may impact how the vessel is able to use its monkfish DAS.

6.5.6 Social Impact of non-preferred alternatives

This section describes the impacts of alternatives considered by the Councils and presented to the public in the DSEIS, but not adopted as proposed action. Since the impact of proposed measures is discussed in comparison to taking no action in Section 6.5.5, only those alternatives that contained measures other than the no action alternative are discussed in this section.

6.5.6.1 Monkfish DAS usage by limited access permit holders in scallops and multispecies fisheries

The Councils considered two alternatives, including the no action, for modifying the requirement that Category C and D vessels (vessels with a multispecies or scallop limited access permit that qualified for a monkfish limited access permit) must use either a scallop or multispecies DAS when fishing on a monkfish DAS. Under the action alternative (Alternative 1), Category C and D vessels would have had the option to use Monkfish-only DAS or combined Monkfish/Multispecies or Scallop DAS. All monkfish limited access permit holders would initially be allocated 40 monkfish DAS but DAS could be reduced to meet rebuilding objectives.

The Councils considered two approaches (Decision 1a, Appendix I): Separation of DAS by area, SFMA only (Alternative 1a), and separation of DAS by annual declaration, either area (Alternative 1b). The Councils also considered two monkfish DAS options under the proposal to separate monkfish DAS, one based on uniform (“fleet”) allocations of DAS and one based on individual vessel monkfish DAS allocations using historical vessel performance in the directed fishery (Decision 1b in Appendix I). If the Councils had decided to adopt the de-coupled DAS program, they were also considering implementing transferable DAS either as a part of the Amendment 2 rule, or deferred to a future action under the framework adjustment process (Decision 1c, Appendix I). They were considering DAS transfer programs modeled after those in Multispecies Amendment 13, by lease or sale (Decision 1d, Appendix I).

The Councils ultimately selected the no action alternative based on public comments received and other reasons, as discussed in Section 4.2.2.1.

6.5.6.1.1 Separation of DAS Alternative 1

The DSEIS concluded that the economic and hence social impacts of either Alternative 1a or 1b, in relation to the no action alternative, would likely be positive or neutral relative to the no action alternative depending on whether or not a vessel owner chose to fish under separated DAS. However, based on near-unanimous comments of current participants in the fishery, the impact of increased overall effort (mainly from scallop vessels) would outweigh any benefits of increased overall fishing opportunity resulting from separated DAS. This is because an increase in fishing effort would likely result in a reduction in trip limits and/or DAS for vessels fishing in the SFMA to prevent the target TAC for this management area from being overharvested. Therefore, an influx of new fishing effort from vessels that have historically not be very dependant upon the monkfish resource, resulting from the separation of DAS, could result in negative social impacts to vessels that are currently dependant on the fishery to varying degrees. Furthermore, because the reduction in trip limits and/or DAS would occur in the SFMA, the influx of new effort would mostly impact those vessels that fish exclusively in the SFMA, and to a lesser extent, those vessels that fish in both management areas.

6.5.6.1.2 Separation of DAS Alternative 1a (Area based)

A declaration to separate DAS usage requirements would be required annually for the SFMA only. For those fishing exclusively in the NFMA, alternative 1a would be the

same as the No Action alternative, which is the alternative being proposed in this amendment. This alternative provides an opportunity to increase the total number of DAS used in groundfish and monkfish fisheries combined. This is an advantage for the SFMA where Category C and D vessels currently target monkfish and have to use a multispecies DAS. This alternative would result in more options or flexibility that may enhance profitability. For vessels that fish exclusively in the NFMA, the economic and hence social impact effect of this alternative would be the same relative to the No Action. For vessels that fish in both areas, vessels that do not choose to have separated DAS would fish under existing management measures (no action measures) which would have no economic or social impact.

6.5.6.1.3 Separation of DAS Alternative 1b (Annual declaration)

As with Alternative 1a, impacts are largely positive in the SFMA where Category C and D vessels would be able to direct on monkfish without having to use a multispecies DAS. This alternative may similarly benefit gillnet vessels in the NFMA, where an exempted monkfish fishery is already established, but would require a trawl exempted fishery to be established for any benefit to accrue to monkfish trawl vessels in the NFMA. In both areas, vessels could elect to fish on combined DAS on a trip-by-trip basis. Because of the added flexibility, this alternative is likely to have positive social impacts for vessels fishing in either area. If the separation of DAS results in effort exceeding the maximum sustainable level under the rebuilding program, trip limits and allowable DAS could be reduced, resulting in some negative social effect on communities more dependent on the monkfish fishery, but whether this would occur cannot be predicted (especially since most vessels are not currently using more than half of their DAS allocations).

6.5.6.1.4 Fleet vs. Individual DAS allocations

If DAS are separated, monkfish DAS could be allocated as Fleet DAS (Alternative 1 Option 1a, equal number to all permit holders), or as Individual DAS (Alternative 1 Option 1b, based on past performance in the monkfish fishery). Vessels are currently allocated Fleet DAS, and this is the MAFMC's preferred alternative (the NEFMC did not identify a preferred alternative). Fleet DAS allocations inherently include some quantity of latent, or unused DAS (about half in the overall monkfish fishery) which could present an effort control problem if DAS leasing or transfer is allowed without appropriate controls to minimize the activation of such latent effort, especially during the stock-rebuilding period. On the other hand, Individual DAS allocations would minimize the amount of latent effort since the allocations would be based on actual vessel activity during the baseline period.

In terms of the social impact of the alternatives, Fleet DAS represent the least change from the current system, adjustments for DAS leasing/transfer notwithstanding, but also result in greater uncertainty about future allocations due to the potential for latent effort to be activated. In that sense, the impacts would be neutral to negative. On the other hand, latent effort represents a no-cost opportunity for vessels to increase monkfish effort as stocks rebuild to the point where some additional effort could be sustained. This provides the greatest opportunity for communities more dependent on the monkfish fishery.

Individual DAS, which are based on actual monkfish effort during a baseline period, would result in a minimal amount of latent effort being allocated to the vessels. Initial allocations, however, could be controversial, if the baseline period predates the FMP, prior to which some vessels were not required to report fishing effort or landings because they did not have federal fishing permits. While an individual DAS allocation system may favor communities where vessels were active in the fishery during the baseline period, it could be negative for those communities where vessels are permitted in the fishery but were not active during the period used to establish initial allocations.

Alternatives under consideration for transfer of DAS (by lease or sale) could have an effect on the choice between fleet or individual DAS programs. If an individual DAS program is adopted, the problems associated with leasing or transfer of latent effort are minimized since allocated effort would be similar in magnitude to actual effort used. The latent effort issue associated with fleet DAS, however, may also be mitigated by the conservation tax provisions of the transferability options.

6.5.6.1.5 Implement transferable monkfish only DAS in this amendment

The Councils considered two options for implementing a transferable monkfish-only DAS program. Alternative 1 Option 2a would implement transferable DAS (by lease or sale) as part of this amendment (effective May, 2005), while Option 2b would enable the Councils to implement such a program at a future date under the framework adjustment procedure. The Councils' selected Alternative 1 Option 2b as the proposed action.

Leasing and sale provisions would provide the most flexibility to vessels, enabling those who wanted to expand their participation in the fishery to do so, while providing some economic return to those vessels that want to reduce or eliminate their monkfishing activities. Under a leasing program, the leasing vessel would still retain the long-term rights (and DAS allocations), and these impacts are likely to be less pronounced than under a sale provision, where the transfer of DAS is permanent. While sale of DAS may provide an economic return to selling vessel owners, the impact of departure from the fishery on crew and other members of the community are uncertain.

6.5.6.1.6 On the other hand, having the ability to increase monkfishing activity through the purchase or leasing of DAS provides the acquiring vessel greater flexibility and opportunity to tailor its monkfishing activity to the level best suited to its needs. Thus, those communities where acquiring vessels operate (and crew on such vessels) would realize a positive effect of the transfer program. However, because such a program was only recently implemented under Amendment 13 to the Northeast Multispecies FMP, the actual impact cannot be accurately predicted, nor can the net social impact of crew and community benefits (of acquiring vessels) compared to losses (of selling vessels' crew and communities) be predicted. This uncertainty and other potential issues that have been raised about DAS transfer programs suggest that postponing the adoption of a leasing program until a future date (through a framework adjustment) would have less negative social impacts than if it were adopted upon implementation of this amendment. This rationale is also the basis for the Councils' preference to adopt transferability under a future framework adjustment procedure.

As discussed in the previous paragraphs, the Councils considered allowing vessels to lease or sell monkfish DAS either by framework adjustment at a future time, or upon implementation of this amendment. The DAS leasing and sale alternatives considered were modeled after similar programs proposed by the NEFMC in Amendment 13 to the Multispecies FMP. A quantitative analysis of the social impacts of these alternatives is not possible at this time, but a qualitative assessment based on the discussion in Amendment 13 is provided below.

The rationale for the DAS program in Amendment 13 is to provide flexibility for fishermen to adapt to the proposed DAS reductions that may make some vessels unprofitable. Similarly, the DAS sale provisions are designed to provide economic opportunity and flexibility while achieving some long-term reduction in fishing effort through the removal of active and inactive effort (via the conservation tax). While Amendment 2 does not contain either effort reduction proposals or the goal of long-term effort reduction that are integral to Amendment 13, the leasing and sale alternatives may still provide fishermen the opportunity and flexibility that those programs represent.

The Amendment 13 analysis concluded that “a leasing program offers an option for some vessels to temporarily increase the number of DAS they may fish by leasing the DAS from another vessel that chooses not to fish them. ... If a particular community is home to a large number of vessels that can participate, this program may provide for the sustained participation of the community in the groundfish [or monkfish, in this case] fishery.” The analysis also noted that “the selection of a mechanism to ensure conservation-equivalency is important and may determine the extent to which some vessels are able to participate in the DAS leasing program.”

From Amendment 13:

The following gives some indication of the possible social impacts from leasing DAS. This analysis is based on part on the predicted outcomes from economic modeling ... further aggregated by port, state, and vessel size to give an indication of the differential effects of DAS leasing within the groundfish industry. This analysis should be interpreted as an indication of the *direction* of pressures or trends, rather than a precise estimate of impacts. The economic model itself is highly stylized and makes a number of theoretical assumptions about perfect markets (such as the overall ability and willingness to trade and the full information to do so, and simultaneous execution of all trades) that are not reasonably expected to occur. There are also a number of reasons to expect, based on anthropological perspectives, that such trading will not take place as economic modeling may predict. Anthropological studies have demonstrated repeatedly that for many fishermen and fishing families, a commitment to fishing is based not solely on income or profit maximization but rather on fishing as a way of life.... Other studies have shown that many fishing businesses are family-run enterprises where income pooling and other forms of resource sharing mitigate against the more traditionally-capitalist assumptions about firms in economic analyses.

The economic modeling assumes that a vessel owner would only lease DAS if the income from leasing is more than the expected income from fishing those DAS; in other words, the impacts from such a leasing arrangement are expected to be positive, or at least no worse than status quo. Given the coupling of this alternative with other alternatives in order to meet conservation neutrality, leasing would at best mitigate the negative impacts from the overall reduction in fishing activity. However, since the income accrues to the owner of the vessel, crew members on vessels that lease DAS away may see a negative impact to income, depending on to what extent the vessel engages in alternative fishing activities (about which the model makes no predictions). Alternatively, crew on vessels that lease DAS in may see positive impacts from increased fishing activity. Changes in landing patterns that could occur with net outflows of DAS from particular ports (as indicated below) could have negative impacts on buyers and processors, depending again on to what extent vessels engage in other fishing activities. Moreover, the social impacts from policy changes extend beyond changes in income. Studies on the social ramifications of ITQ's (though fundamentally different from the policy proposed here since DAS are only leased and not permanently sold) have, for example, pointed to the significant impacts on social relations that stem from the modification of fishing activity. Moreover, such ITQ studies have pointed to the ramifications of changing market shares that enable the domination of particular segments of the industry over others without further protective legislation.

In terms of the distributional effects within the groundfish industry, the economic modeling indicates a movement of DAS from large/medium to small vessels.... For all size categories, there is a movement to vessels more dependent on groundfish income, though this is more pronounced for the larger vessels. At the state level ..., the influx of DAS is primarily to Massachusetts, which is also the state with the highest groundfish income from the vessels modeled. Maine, though with the second highest income and with income that comes from vessels dependent or highly dependent on groundfish, sees significant loss of DAS. Rhode Island also shows significant loss of DAS. It is therefore expected that the negative impacts (as detailed above) from DAS leasing would be felt most there. At the port level, ports such as New Bedford and Gloucester see a net gain of DAS while ports such as Portland, Point Judith, Newport, and Hampton might see a net loss. (*Amendment 13, Section 5.6.2.2.2*)

In the context of the monkfish fishery, therefore, DAS leasing is likely to result in the shift in distribution of DAS used in the fishery among communities and vessel classes, but the magnitude and direction cannot be predicted. Under a DAS sale program, similar changes would also likely occur, but on a more permanent basis.

6.5.6.2 Alternatives to the 50 lbs./trip incidental catch limit

The Councils considered three alternatives for the 50 lbs./trip incidental catch limit; the no action alternative, a 50 lbs./day up to 150 lbs. maximum possession limit (Alternative

2), and a 50 lbs./day up to 500 lbs. maximum possession limit (Alternative 3). The Councils recommended Alternative 2 as the proposed action, rejecting both the no action alternative, and Alternative 3.

The no action alternative would have kept the present incidental allowance of 50 lbs. per trip in place, resulting in no social impacts with respect to the baseline. However, Alternative 3 would have enabled vessels to retain a higher amount of monkfish as incidental catch than the proposed action. Thus, Alternative 3 could result in greater positive social outcomes (e.g., increased profit and decreased discards) for some vessels, particularly squid freezer vessels that take trips of 3-10 days in duration, than the proposed action or the no action alternative.

6.5.6.3 Minimum trawl mesh size on directed MF DAS

The Councils presented three alternatives for minimum trawl mesh size while a vessel is on a monkfish DAS, and adopted Alternative 1, the no action alternative. Alternative 2 proposed that limited access vessels fishing under a monkfish DAS would be required to use 12-inch square mesh in the codend, and 12-inch diamond mesh in the belly and wings of the net. Alternative 3 proposed that limited access vessels fishing under a monkfish DAS would be required to use 12-inch square mesh in the codend only. Under these two action alternatives, Category A and B trawl vessels on a monkfish DAS would have to use the larger mesh, as would limited access scallop vessels while on a monkfish DAS (since they are prohibited from using a dredge on a monkfish DAS). If monkfish DAS were separated from multispecies DAS, then the selected alternative would also have applied on multispecies vessels fishing on a monkfish only DAS. When on a combined monkfish/multispecies DAS, if DAS were separated, the Councils considered requiring either multispecies regulated mesh (no action alternative), or one of the other alternatives described in this section. Further, for mesh sizes larger than 10 inches, the Councils proposed using the nearest metric equivalent for specification in the regulations. Large mesh sizes are manufactured in Europe under a metric system and measured between the knots, while U.S. mesh-size regulations are expressed in inches between the knots.

The proposed action would have no negative social impacts since it would not change minimum mesh size restrictions for vessels fishing under a monkfish DAS. Conversely, the implementation of an alternative that would increase the minimum trawl mesh size in the codend or entire net would require owners of monkfish trawl vessels with non-conforming gear to purchase and install trawl nets that comply with the new restrictions. While replacing an entire net may require a substantial initial expenditure, vessels routinely replace codends. The cost of gear may be offset by the benefits of increased fishing opportunity and increased yield per recruit associated with using larger mesh nets.

Vessels that fish only in the NFMA would likely not be impacted by a change in the minimum mesh size since there is currently monkfish trawl exemption area in the NFMA. As a result, these vessels would likely continue to fish for monkfish under a multispecies DAS, or under a combined multispecies/monkfish DAS, with minimum mesh regulated by the multispecies FMP. However, there is an option under the minimum mesh alternatives to require the increased minimum mesh size under combined DAS. If this

option is implemented, vessels that choose to fish under a combined DAS (to retain full monkfish allowance if DAS are separated) in the NFMA would also be required to purchase trawl mesh that conforms to the increased minimum monkfish mesh size.

In summary, the proposed action would result in no additional costs, and therefore, would likely not have any significant negative social impacts. However, an increase to the minimum mesh size (codend or entire net) would result in additional costs to vessels using non-conforming gear, resulting in some negative social impacts. However, there is insufficient data available on the mesh size being used by vessels targeting monkfish (from observer data and VTR data) to determine the extent of these impacts. Furthermore, the increased yield per recruit, reduced discards of small monkfish and other species, and the increased opportunity (associated with separated DAS) may actually result in positive social effects despite the short-term economic costs.

6.5.6.4 Minimum fish size

The Councils considered four alternatives for minimum fish size, including the no action alternative (Alternative 1), uniform minimum tail size (Alternative 2) with two size limit options (Option 1 = 11-inch tail, Option 2 = 10-inch tail), and eliminating the minimum size (Alternative 3). One of the alternatives, Alternative 4, was contingent upon the adoption of a monkfish-only DAS program, and would apply a different minimum size when a vessel is on a monkfish-only DAS. The Councils are proposing that there be a uniform 11-inch minimum tail size (17-inch whole) for both management areas (Alternative 2, Option 1).

6.5.6.4.1 Minimum fish size Alternative 1 (no action)

The no action alternative would maintain the current minimum size limits of an 11-inch tail size in the NFMA, and a 14-inch tail size in the SFMA. Compared to the proposed action, vessels in the NFMA would continue to be subject to the same minimum fish size. However, vessels fishing in the SMFA would continue to have a more restrictive minimum fish size than vessels fishing in the NFMA under the No Action Alternative, potentially resulting in a higher discard rate for vessels fishing in the SFMA, and a greater loss in revenues due to the more restrictive minimum fish size. This could continue to foster feelings of inequity between vessels that fish exclusively in the SFMA, and those vessels that fish primarily in the NFMA.

6.5.6.4.2 Minimum fish size Alternative 3 (no minimum size)

None of the action alternatives would change the catch targets or DAS/trip limit allocations, but would have the effect of converting some monkfish discards to landings, thereby minimizing bycatch. Alternative 3 would eliminate the minimum fish size limit resulting in the greatest potential economic flexibility and would eliminate regulatory discards due to minimum size restrictions. Thus, the social impacts of Alternative 3 are either neutral or positive.

6.5.6.4.3 Minimum fish size Alternative 4 (if DAS are separated, 14" tail/21" whole)

The 14-inch tail size limit proposed under Alternative 4 would be the same as current regulations for the SFMA. As a result, vessels fishing in the SFMA would not have to

adjust their current fishing practices. For the NFMA, this alternative would result in an increase to the current minimum fish size, requiring vessels to discard monkfish that they were previously allowed to land. Thus, the social impacts of this alternative would likely be neutral for the SFMA and negative for the NFMA.

6.5.6.5 Closed season or time out of the fishery

The Councils considered three alternatives for closed seasons (spawning closures, or blocks of time out of the fishery) including no action, and propose Alternative 2, eliminating the closed season requirement. Under Alternative 3, the current 20-day block requirement would be extended to 40 days, although the days could be taken in two 20-day blocks within the months specified under the current regulations. The Councils also considered, if DAS were decoupled, requiring all limited access permit vessels, including Category C and D permits with scallop limited access permits, would be required to take the block of time out of the monkfish fishery under either Alternative 1 (no action, 20-day block) or Alternative 3 (two 20-day blocks).

Alternative 1 (no action) would retain the current requirement for limited access Category A and B vessels to take a 20-day block of time out of the monkfish fishery from April 1 through June 30 of each calendar year. Limited access Category C and D vessels are currently not required to take a monkfish spawning block since they are required to take a 20-day block out of the Northeast multispecies fishery from March 1 through May 31 of each calendar year, if they hold a limited access Northeast multispecies permit. This alternative would not incur any additional regulatory costs since it does not change the current monkfish spawning block requirements. As such, this alternative would likely not incur any additional social impacts.

Alternative 3 would increase the current 20-day spawning block to 40 days. Under this alternative, vessel owners may choose to take the entire 40-day block at one time, or split it into two 20-day blocks. This alternative would greatly impact monkfish trip scheduling and planning, leaving vessels with few opportunities to target monkfish during one of the peak monkfish fishing seasons. The social impacts of blocks of time out of the fishery are difficult to determine since vessels may engage in other fisheries while under a monkfish spawning block, and may retain monkfish within the bycatch limits established for fishery or gear type. However, because this alternative further restricts limited access monkfish vessels during one of the peak fishing seasons, Alternative 3 is expected to have greater social impacts than Alternative 1.

Under this management measure, there is an option to require all limited access monkfish vessels in the spawning season restrictions under either Alternative 1 or Alternative 3 if DAS are separated. Currently, limited access Category C and D vessels are not required to take a monkfish spawning block. Category C and D vessels with a limited access multispecies permit are required to take a 20-days out of the Northeast multispecies fishery, but Category C and D vessels with a limited access scallop permit are currently not required to take type of spring spawning block.

The option to include all limited access monkfish vessels in the spawning season restrictions may reduce social tensions between owners of Category A and B vessels and owners of Category C and D vessels resulting from feelings that Category C and D vessels have been given an unfair advantage. Scallop vessels are unlikely to target monkfish during the spring since this is the start of the scallop fishing year. As a result, the social impacts to limited access scallop/monkfish vessels resulting from Alternatives 1 or 3 would likely be minimal. Furthermore, limited access Category C and D vessels with a limited access multispecies permit are not expected to incur additional social costs under this option, since these vessels are currently not able to fish under a monkfish DAS during their 20-day multispecies spawning block.

6.5.6.6 Offshore SFMA Fishery

The Councils considered two alternatives for establishing an Offshore Fishery Program in the SFMA, including the no action alternative. The Councils are proposing establishment of an enrollment program for vessels wanting to fish offshore in southern New England, Alternative 2. Within Alternative 2, however, the Councils considered, but rejected options for the area covered under this program (Area Option 2), and for the applicable trip limits and associated DAS (DAS/Trip Limits Option 1).

The No Action alternative would continue to restrict the ability of vessels to prosecute a fishery in the offshore canyon areas; a fishery that previously occurred prior to the implementation of the FMP. Thus, the continued forgone opportunity to prosecute this offshore fishery under the no action alternative could result in some negative social impacts compared to the proposed action.

Area Option 2 would have established the boundary of the for the offshore fishery as a the area north of 38° N and offshore of the Loligo squid exemption line to its intersection with the northern boundary of the monkfish/skate trawl exemption area at 40°10' N, then eastward along the trawl exemption boundary. This area option would have excluded potentially productive deep water canyon areas from the Offshore Fishery Program, reducing the fishing opportunities available to vessels participating in this program. The Offshore Fishery Program as a whole is expected to result in positive social impacts. Therefore, one could expect that the social benefits of this Offshore Fishery Program under Area Option 2 would be less than under Area Option 1.

The DAS/Trip Limit Option 1 would have enabled participating vessels to chose a trip limit/DAS ratio of 1:2, 1:3 or 1:4, versus having a fixed trip limit of 1,600 lbs. tail weight (with DAS adjusted accordingly). This option would have provided participating vessel owners with the flexibility to choose the ratio that would maximize their profitability, potentially resulting in greater social benefits as compared to DAS/Trip Limit Option 1.

6.5.6.7 Modification of permit qualification for south of 38°N

The Councils took to public hearings four alternatives that would revise the limited entry qualification periods for certain vessels that did not qualify for a permit under the original FMP, plus no action (Table 121). The Councils are proposing Alternative 3 in this amendment. Under the no action alternative, no additional vessels would qualify for a

monkfish limited entry permit, since the permit appeals period has ended. The landings qualification criterion would remain the same as in the original FMP, that is 50,000 lbs. (tail wt.) for a Category A or C permit, and 7,500 lbs. (tail wt.) for a Category B or D permit, except that landings must have occurred south of 38°N.

	Qualification period – four years prior to:		Estimated qualifiers
Alternative 1	June 15, 1998	(full year)	7
Alternative 2	June 15, 1997	(full year)	3
Alternative 3	June 15, 1998	(March 15 – June 15)	5
Alternative 4	June 15, 1997	(March 15 – June 15)	3
Alternative 5 (no action)	February 27, 1995		N/A

Table 121. Four alternative limited access permit qualification periods for vessels fishing south of 38°N, plus no action. The Councils are proposing Alternative 3.

The information contained in Table 121 shows the number of vessels estimated to qualify for new limited access permits under each alternative considered. For all of these alternatives, except the no action alternative, the social benefits for those affected would likely be positive. Alternative 1 would result in the greatest overall social benefit since it would provide positive benefits to a greater number of vessels than the other alternatives. Conversely, the no action alternative would continue to limit the fishing opportunities of vessels that would qualify for a limited access monkfish permit under the proposed action, or one of the other proposed action alternatives, with some potential negative social effects.

6.5.6.8 EFH Alternative 4 Options 1 and 2 (Monkfish trawl configuration)

The Councils considered 3 alternative trawl configurations, including the no action Option 1, specifically designed to minimize the impact of the monkfish fishery on EFH for other groundfish species if DAS usage requirements were separated. Under Option 2, the Councils considered six individual elements that could be taken together or separately, which are described in Section 4.2.2.9.3, and sought public comment on the specific components. However, this option would only be considered if DAS were decoupled. The intent of this alternative was to increase efficiency of bottom trawls for catching monkfish on muddy bottom and reduce the likelihood that they will be used in hard bottom areas that provide EFH for other groundfish species. The Councils adopted Option 3, to establish a maximum disc diameter of 6-inches in the SFMA.

Any change in gear requirements under Option 2 would require the purchase of new equipment for use during monkfish-only DAS trips. Although vessel owners are often required to purchase new gear for a variety reasons (wear, damage, etc.) some vessel owners may consider the purchase of new fishing gear a hardship in a climate of shrinking profitability margins. Conversely, under the No Action alternative, vessels would not be required to conform with new gear requirements. Thus, no social impacts would result from the No Action alternative.

6.5.6.9 EFH Alternative 5C (up to 12 large, steep-walled canyons closures)

The Councils considered two closure options to minimize the impacts of the directed monkfish fishery on deepwater corals and adopted Alternative 5AB, which consists of a closure of Oceanographer and Lyndonia Canyons. The Councils did not adopt Alternative 5C, which proposed to close waters above up to 12 large canyons from Norfolk Canyon to the Hague Line. Alternative 5C would have closed a larger area to monkfish vessels than Alternative 5AB. Thus, the social impacts resulting from the closure of this area would likely be greater than the impacts resulting from Alternative 5AB, based on the affected area alone.

According to 2001 VTR data, only 116 trips were identified as having taken place within the Large, Steep-Walled Canyon Closures of which 5 were found to be directed trips. Conversely, only 3 trips were identified as having taken place within the Oceanographer Canyon Closure area, and only one trip was reported to have taken place within the Lydonia Canyon Closure area. None of the trips taken in either of these closure areas were directed trips. Thus, based on past effort in the offshore canyon areas, Alternative 5C would likely have greater social impacts than Alternative 5AB.

6.5.6.10 NFMA Monkfish trawl experimental fishery

The Councils considered two alternatives, including the no action alternative, for a two-year monkfish trawl experimental fishery for the purpose of establishing a trawl exempted fishery in the NFMA to streamline the process of determining where, when and under what gear restrictions trawl vessels could target monkfish while on a monkfish, but not a multispecies DAS. However, the Councils determined that this alternative was no longer necessary for the reasons presented in Section 4.2.2.12.

This alternative would provide additional opportunity for vessels to fish for monkfish in the NFMA through participation in a cooperative research project. Further, information gathered from this research could be used to establish an experimental monkfish trawl fishery in the NFMA. Under current regulations, there is no exempted monkfish trawl fishery in the NFMA, and therefore, there is no opportunity for trawl vessels to use monkfish-only DAS in this area. Thus, because this alternative could lead to increased fishing opportunities, it would have some social benefits. However, because this alternative would utilize up to 300 of the 500 monkfish DAS set aside for monkfish research activities, it could prohibit other much needed monkfish research from being conducted, resulting in some social costs.

6.5.6.11 Change fishing year

The Councils (NEFMC and MAFMC) proposed changing the monkfish fishing year in this amendment to be consistent with any changes under Multispecies Amendment 13, and considered three alternatives. Under Alternatives 2, 3 and 4, the fishing year would be changed to calendar year, October – September, or July – June, respectively.

The three alternatives to change the fishing year would likely result in some level of social impacts since Amendment 13 to the Northeast Multispecies FMP made no changes to the multispecies fishing year, and the monkfish fishing year would no longer be

aligned with the multispecies fishing year, potentially making the permit renewal process more cumbersome. In addition, a change in the fishing year would impact a vessel owner's planning of fishing activities for the upcoming year, especially if a vessel is receiving different DAS allocations at different times of the year. These impacts would be more substantial if monkfish DAS are not separated from Northeast multispecies and scallop DAS. Furthermore, the social impacts associated with Alternative 2 may be slightly less than Alternatives 3 and 4 since Alternative 2 would align the monkfish fishing year with the fishing years of several other species managed by the Mid-Atlantic Fishery Management Council (i.e., summer flounder, scup, black sea bass, squid, etc.), making the planning of fishing activities slightly easier.

6.5.6.12 DAS prorating alternatives if the fishing year is changed

Since DAS are allocated on a fishing year basis, if the Councils had decided to change the fishing year in this amendment, they would have had to adopt a procedure to allocate DAS for the partial years during the transition period. The Councils considered two alternatives are based on the prorating alternatives under consideration in Multispecies Amendment 13, adapted to the different implementation schedule of this amendment. The only difference between the alternatives is that Alternative 2 provides for a longer transition period by extending the proration period into the 2006 fishing year. As a result, Alternative 2 may provide vessels with greater flexibility to maximize their economic opportunity. Therefore, Alternative 2 may have a slight advantage from a social impact perspective than Alternative 1 due to the increased flexibility. Since the Councils took no action to change the monkfish fishing year, these administrative alternatives are irrelevant.