

VOLUME I

FINAL

AMENDMENT 1

to the

Fishery Management Plan (FMP)

for

Atlantic Herring



Including a

Final Supplemental Environmental Impact Statement (FSEIS)

and

Initial Regulatory Flexibility Analysis (IRFA)

Prepared by the

New England Fishery Management Council

in consultation with

National Marine Fisheries Service

Atlantic States Marine Fisheries Commission

Mid-Atlantic Fishery Management Council

Date Submitted: May 3, 2006

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AMENDMENT 1 TO THE ATLANTIC HERRING FISHERY MANAGEMENT PLAN

- Proposed Action:** Implementation of measures to adjust fishery management program for the Atlantic herring complex, which include: a limited access program for all management areas, re-structuring of Federal herring permits, permit provisions and vessel upgrade restrictions; establishment of a purse seine and fixed gear-only area; specification of a 220,000 mt proxy for maximum sustainable yield (MSY); authorizations for herring TAC set-asides for research; adjustments to the herring fishery specification process; adjustments to herring management area boundaries; measures to address fixed gear fisheries for herring; modification of the regulatory definition of midwater trawl gear; and other administrative provisions and adjustments.
- Type of Statement:** Final Environmental Impact Statement
- Responsible Agencies:** New England Fishery Management Council
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- Abstract:** The New England Fishery Management Council and the NOAA Assistant Administrator for Fisheries propose to adjust management measures for the Atlantic herring fishery through Amendment 1 to the Herring FMP, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA or M-S Act). Seven management alternatives were considered, in addition to the no action alternative, when developing the amendment; the Proposed Action includes elements of a limited access program for the herring fishery and measures to establish a purse seine and fixed gear-only area in the inshore Gulf of Maine. Several additional management measures are also proposed and are analyzed in this integrated document. These measures primarily address issues related to the herring fishery specifications, management area boundaries, fixed gear fisheries for herring, and the regulatory definition of midwater trawl gear. In addition, several management measures are proposed to be added to the list of measures that can be implemented through a framework adjustment to the Herring FMP in the future. This document includes all information and analyses required under the National Environmental Policy Act (NEPA), the M-S Act, the Regulatory Flexibility Act (RFA), and other applicable laws.

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Executive Summary

This amendment document and final supplemental environmental impact statement (FSEIS) presents and evaluates management measures and alternatives to achieve specific goals and objectives for the Atlantic herring fishery. This document was prepared by the New England Fishery Management Council and its Herring Plan Development Team (PDT), in consultation with the National Marine Fisheries Service (NMFS, NOAA Fisheries), the Atlantic States Marine Fisheries Commission (ASMFC), and the Mid-Atlantic Fishery Management Council (MAFMC). This amendment was developed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act) and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ). In 1996, Congress passed the Sustainable Fisheries Act (SFA), which amended and reauthorized the MSFCMA and included a new emphasis on precautionary fisheries management. New provisions mandated by the SFA require managers to end overfishing and rebuild overfished fisheries within specified time frames, minimize bycatch and bycatch mortality to the extent practicable, and identify and protect essential fish habitat (EFH).

Although this FMP amendment has been prepared primarily in response to the requirements of the MSFCMA and NEPA, it also addresses the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing a Fishery Management Plan or FMP amendment, the Council also must comply with the requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedures Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Data Quality Act (DQA), and Executive Orders 13132 (Federalism), 12898 (Environmental Justice), 12866 (Regulatory Planning), and 13158 (Marine Protected Areas). These other applicable laws and executive orders help ensure that in developing an FMP/amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human environment. This integrated document contains all required elements of the FMP amendment, including a FSEIS as required by NEPA and information to ensure consistency with other applicable laws and Executive Orders.

In addition to the no action alternative (i.e., status quo conditions in the herring fishery if this amendment is not completed), the Council considered seven management alternatives in Amendment 1. These management alternatives consisted of measures to address limited access as well as a purse seine/fixed gear-only area and were detailed in the DSEIS associated with this action. When selecting final management measures for inclusion in Amendment 1, the Council selected a combination of elements from the proposed management alternatives as well as several independent management measures, 13 of which were under consideration in this amendment. Independent measures are those having little or no interaction effects and are viewed and analyzed separate from the management alternatives. They may be combined in any way with the management alternatives under consideration because they are not likely to significantly affect the outcome of the impact analysis of the management alternatives. Independent management measures were proposed to address numerous issues in the Herring FMP, such as the specification of maximum sustainable yield (MSY), TAC set-asides for research, the timing of the fishery specification process, and the regulatory definition of midwater trawl gear, among others.

Measures to address bycatch in the herring fishery, particularly that of haddock and other regulated groundfish species, were proposed by the Council in 2004 and analyzed in the DSEIS for Amendment 1. At its final meeting for Amendment 1 to the Herring FMP (January 31-February 2, 2006), the New England Council separated the measures to address bycatch from the Amendment 1 document and agreed to submit them separately as Framework 43 to the Northeast Multispecies FMP (February 2006). This

framework adjustment proposes management measures to address the bycatch of regulated multispecies, primarily haddock, in the Atlantic herring fishery. The measures proposed in Framework 43 were included and analyzed in the Draft EIS and public hearing document for Amendment 1, which also represented a framework adjustment to the Groundfish FMP at that time. The Council chose to separate this action and submit it prior to Amendment 1 so that these measures can be implemented more expeditiously, hopefully prior to the summer 2006 fishery. As a result, specific management measures to address bycatch are not included in this amendment, and Framework 43 should be referenced for additional information. In addition, NMFS is developing an omnibus amendment to Northeast Region FMPs to address Standardized Bycatch Reporting Methodology (SBRM). This amendment document and FSEIS provides background information about the current SBRM for the herring fishery and updates readers on the status of the NMFS SBRM amendment. It also includes language that adds several management measures to further address bycatch to the list of measures that can be implemented in the future through a framework adjustment to the Herring FMP or through the fishery specification process, whichever is most expeditious.

The Proposed Action, therefore, consists of the following management measures, which are described in Section 4.0 and analyzed in detail throughout this integrated Amendment 1 and FSEIS document:

- Limited access program for all management areas in the Atlantic herring fishery – separate limited access program for Area 1 and Areas 2/3 with two-tier permit system to qualify vessels for a directed fishery and an incidental catch fishery; limited access permit provisions consistent with those in other Northeast Region limited access fisheries; open access incidental catch permit and 3 mt possession limit for vessels that do not qualify for any limited access permits and catch small amounts of herring incidentally;
- Adjustments to herring management area boundaries – re-specification of Area 3 and consequent modifications to the boundaries for Areas 1B and 2;
- Establishment of a seasonal purse seine/fixed gear-only area – all of Area 1A from June – September of each fishing year;
- Specification of a proxy for maximum sustainable yield (220,000 mt);
- Adjustments to the herring fishery specification process, including a more flexible process for determining the distribution of TACs, a process for multi-year specifications (three fishing years); and a process for establishing TAC set-asides for research;
- Measures to address fixed gear fisheries, including an approach to account for the Downeast ME fixed gear fishery catch as part of the New Brunswick weir fishery catch when determining fishery specifications, and a 500-mt set-aside of the TAC in Area 1A for the remainder of fixed gear fisheries in this area until November 1 of each year;
- Changes to the regulatory definition of midwater trawl gear; and
- Addition of measures that can be implemented in the future through a framework adjustment to the Herring FMP.

This integrated amendment and Final EIS document builds on the Draft EIS prepared by the Council in August 2005 and provides additional information and analysis relative to the specific management actions proposed in this amendment. Consistent with the requirements of the National Environmental Policy Act (NEPA), the Final EIS document:

- Contains all of the required components of both the Draft and Final EIS;
- Updates herring stock and fishery information through 2005 to the extent possible;
- Responds to substantive comments received on the Draft EIS from the public and other agencies;

- Identifies and discusses remaining areas of controversy and issues to be resolved;
- Provides the Council’s rationale for the proposed management action.

This document also includes an Initial Regulatory Flexibility Analysis (IRFA) and responds accordingly to the requirements of the Regulatory Flexibility Act (RFA) and Executive Order 12866, as well as other applicable laws.

Summary of Impact Analysis

Analyses of the Proposed Action as well as all management alternatives and independent management measures considered during the development of this amendment are provided in this document across a series of valued ecosystem components, or VECs. VECs represent the resources, areas, and human communities that may be affected by a proposed management action or alternatives, and by other actions that have occurred or will occur outside the Proposed Action. VECs are the focus of an EIS since they are the “place” where the impacts of management actions are exhibited. An analysis of impacts is performed on each VEC to assess whether the direct/indirect effects of an alternative adds to or subtracts from the effects that are already affecting the VEC from past, present and future actions outside the Proposed Action (i.e., cumulative effects). The VECs identified for Amendment 1 include: Atlantic herring, protected species, physical environment and EFH, fishery-related businesses and communities, and other fisheries.

The descriptive and analytic components of this document are constructed in a consistent manner. The Affected Environment section of this document traces the history of each VEC and consequently addresses the impacts of past actions. The Affected Environment section (Section 7.0) is designed to enhance the readers’ understanding of the historical, current, and near-future conditions (baselines and trends) in order to fully understand the anticipated environmental impacts of the management alternatives and independent measures under consideration in this amendment.

Impacts on Atlantic Herring (Section 8.1)

The overall conclusion is that the direct impacts of the management action proposed in this amendment on the Atlantic herring resource – the biological impacts –are not likely to be significant, but there should be long-term benefits to the resource resulting from the Proposed Action. Similar to the seven management alternatives that were considered in the Amendment 1 DSEIS, the Proposed Action would not affect the amount of total removals from the fishery, an outcome that would be most likely to directly result in impacts on the herring resource. Therefore, no additional impacts on the herring resource overall are expected from the Proposed Action when compared to the management alternatives that were considered in Amendment 1. The Atlantic herring fishery will continue to be managed by quotas (“hard” TACs) under all of the limited access alternatives, which restrict total removals to levels that are intended to prevent overfishing.

As discussed in the impact analyses, more restrictive limited access programs that effectively prevent overcapacity could increase long-term benefits for the resource. However, the specifics of any particular impacts of the measures under consideration cannot be predicted with accuracy, nor can the impacts of the management alternatives relative to the herring resource be compared at present. There are too many variables that could influence the outcome under any of the management alternatives that were considered by the Council in this amendment – changes in fishing patterns/behavior, variations in fish availability, uncertainty about stock mixing ratios, and a general lack of biological/ecological information specific to the inshore component of the resource at this time. As noted in the impact discussion, management measures within the alternatives (Proposed Action, Alternative 7) that could cause a substantial shift of fishing effort in Area 1A to later in the fishing year could cause concern for the inshore component of the

resource, assuming that the currently-assumed mixing ratios are accurate. Tagging and morphometric studies will help answer this question in the future.

The Atlantic herring fishery will continue to be managed by area-specific TACs (quotas) that are established in a manner that is intended to prevent overfishing on the resource as a whole as well as the individual spawning components. For the most part, given market conditions (for example, summertime demand for lobster bait) and fish availability observed in Area 1A in recent years, it is unlikely that the Area 1A TAC would not continue to be fully utilized. This conclusion is somewhat less certain relative to Alternative 7 as well as the Proposed Management Action, however, which both establish a purse seine/fixed gear-only area in all of Area 1A from June – September, the peak season for lobster bait demand. Purse seine vessels are generally limited to fishing during the night hours, so depending on fish availability, weather conditions, and ASMFC restrictions (days out, spawning restrictions), the chance of not fully utilizing the Area 1A TAC are higher under the Proposed Action and Alternative 7 relative to the other alternatives under consideration in Amendment 1. While this may be beneficial for the inshore component of the herring resource, it could result in negative social and economic impacts on the herring and other fisheries, and it may be inconsistent with the amendment’s objective to achieve full utilization of OY in this fishery.

Establishing a purse seine/fixed gear-only area in the inshore Gulf of Maine could affect access to the herring fishery for some midwater trawl vessels and could produce changes in fishing patterns, but the specific biological impacts resulting from purse seine/fixed gear measures cannot be predicted with any degree of certainty. However, the Council believes that the measures proposed in this amendment, especially the purse seine/fixed gear only area, will produce indirect biological benefits to the herring resource and the Gulf of Maine ecosystem that may not be quantified in the Amendment 1 impact analysis. These impacts stem from managing the inshore component of the resource in a precautionary manner and restricting concentrations of fishing effort by midwater trawl vessels in the inshore Gulf of Maine during the summer months, some of which are spawning months for the inshore stock component. These impacts are generally not quantifiable at this time due to a lack of information, but they are related to the importance of maintaining a sufficient abundance of herring as prey in this area for other important fish species, marine mammals, and seabirds. The Council views this measure as part of a precautionary and proactive approach to ensure that the risk of overfishing the inshore component of the resource is minimized.

In general, measures that affect total removals from the fishery would have the greatest biological impacts and related impacts on the availability of herring as forage. Since none of the measures contained within the Proposed Action are likely to change total removals from the fishery (because the fishery is managed through hard TACs that are established and analyzed during the fishery specification process), the overall impacts on herring as forage are not likely to be significant. Although small-scale impacts cannot be predicted at this time, it is recognized that significant changes in fishing patterns could impact the seasonal availability of herring for forage (for example, if fishing patterns changed such that the majority of fish from Area 1A are caught during June/July). Fishing patterns, particularly in Area 1A, should be monitored closely following the implementation of Amendment 1.

Impacts on Protected Resources (Section 8.2)

Protected species interactions have been well-documented in the major gear types currently used in the Atlantic herring fishery. Purse seines operating in this fishery are known to take several species of seals and harbor porpoise, while midwater trawl gear (including paired midwater trawls) has had documented interactions with pilot whales, white-sided dolphins and seals. Lack of observer coverage hampers quantitative discussions of impacts, but several issues are important to note. The NMFS *List of Fisheries for 2005* places the herring midwater trawl fishery, including pair trawls, in Category II, denoting a

fishery that has been determined to have occasional serious injury and mortality of marine mammals. The purse seine fishery is considered to have a remote likelihood of interactions and is listed in Category III. This gear type has the ability to release entrapped animals alive and, as reported in the NMFS sea sampling database is often successful, at least with pinnipeds.

Given the target species of this fishery and because herring is a primary prey species for seals, porpoises and some whales, levels of protected species interactions with fishery are likely. The Proposed Action, however, includes a limited access program that controls capitalization of the fleet, including growth of the midwater trawl sector, and a seasonal purse seine/fixed gear only area that should, at a minimum, not increase interactions with protected species beyond the status quo, and may have indirect positive benefits by imposing more controls on the fishery. Similarly, because most of the independent measures improve the management program through administrative and monitoring mechanisms, they are unlikely to affect protected species in any direct or measurable way.

Impacts on Physical Environment and Essential Fish Habitat (EFH) (Section 8.3)

In 1996, Congress passed the Sustainable Fisheries Act (SFA), which amended and re-authorized the MSA and introduced new emphasis on rebuilding overfished fisheries, ending overfishing, minimizing bycatch and bycatch mortality, and minimizing to the extent practicable the adverse impacts of fishing activity on essential fish habitat (EFH). One purpose of this FSEIS is to comply with section 303(a)(7) of the Magnuson-Stevens Fisheries Conservation Management Act (MSA). More specifically, the purpose includes evaluating the potential adverse effects of fishing on Atlantic herring EFH and on the EFH of other species, and to minimize to the extent practicable any adverse effects, which are more than minimal and not temporary in nature. This evaluation was undertaken in Amendment 1 to ensure the conservation and enhancement of EFH as required under the MSA.

An assessment of the potential effects of the directed Atlantic herring commercial fishery on EFH for Atlantic herring and other federally-managed species in the Northeast region of the U.S. was conducted as part of an EIS that evaluated impacts of the Atlantic herring fishery on EFH (NMFS 2005). (This analysis is included in Appendix VI, Volume II of this FSEIS) and determined that midwater trawls and purse seines do occasionally contact the seafloor and may adversely impact benthic habitats utilized by a number of federally-managed species, including EFH for Atlantic herring eggs. However, after reviewing all the available information, *if* the quality of EFH is reduced as a result of this contact, the impacts are minimal and/or temporary and, pursuant to MSA, do not need to be minimized. This conclusion also applies to pelagic EFH for Atlantic herring larvae, juveniles, and adults and to pelagic EFH for any other federally-managed species in the region.

Based on the conclusions in the 2005 Atlantic herring EFH EIS, development or consideration of measures to minimize, mitigate or avoid impacts of the fishery to essential fish habitat in Amendment 1 to the Herring FMP was not necessary or warranted. This analysis therefore is limited to the possible habitat impacts of the non-habitat-related management measures included in the Proposed Action.

In general, the Proposed Action will not have any additional impacts on essential fish habitat (EFH) beyond those analyzed in the Amendment 1 DSEIS. The Proposed Action is similar to Alternative 7 from the DSEIS (with modifications to the limited access program) and also includes a suite of independent measures that were considered and analyzed in the DSEIS. The Proposed Action would establish all of Area 1A as a seasonal purse seine and fixed gear-only area, a measure that was ultimately incorporated into the Proposed Action for Amendment 1 (see Section 4.0 of this document for a complete description of the Proposed Action).

The limited access program that is included in the Proposed Action would not affect the amount of total removals from the resource or the amount or spatial distribution of fishing activity. Any increase or redistribution of fishing effort that might occur would be influenced by other factors such as changes in the seasonal availability of herring on different fishing grounds or changes in fishing gear and practices by vessels that qualify for limited access permits. In the long term, limited access will limit the growth of the fishery in all three management areas. Any potential adverse impacts of the directed Atlantic herring fishery on EFH will continue to be minimal and/or temporary under the proposed limited access program.

The Area 1A gear prohibition could cause a shift in midwater trawling effort from the inner Gulf of Maine on to Georges Bank during June-September. However, if this does occur, it is not expected to adversely impact EFH in more than a minimal and/or temporary manner. This conclusion is based on information in the Gear Effects Evaluation (Appendix VI, Volume II) indicating that bottom contact by midwater trawls occurs only occasionally, and that the use of bottom trawls and dredges, which contact the bottom continuously, far exceeds the use of herring midwater trawls. Bottom habitats in open access areas where the use of midwater trawls could increase are already subjected to disturbance by bottom trawls and/or dredges, so any additional disturbance of bottom habitats caused by gears used in the directed herring fishery would be negligible. Bottom habitats in areas that are closed to bottom trawls and dredges are more susceptible to disturbance, but there is no reason to believe that closed areas on GB – where midwater trawling may increase – are any more vulnerable to bottom contact than closed areas in the GOM – where midwater trawling would decrease.

The Proposed Action in Amendment 1 does not adversely impact EFH. The Gear Effects Evaluation (Appendix VI, Volume II) concluded that there are potential adverse habitat impacts associated with the use of midwater trawls and purse seines, but that they are minimal and/or temporary in nature. Under the Proposed Action, they would continue to be minimal and/or temporary and therefore not require minimization.

Impacts on Fishery-Related Businesses and Communities (Section 8.4)

The management measures included in the Proposed Action that are most likely to directly impact fishery-related businesses and communities are the proposed limited access program and the purse seine/fixed gear-only area. The Proposed Action is estimated to qualify 31 vessels for limited access directed fishery permits to fish in all management areas, three additional vessels for limited access directed fishery permits in Areas 2/3 only, and 56 vessels for limited access incidental catch permits with a 25 mt possession limit. **The estimated total number of limited access vessels under the Proposed Action is 90, with 34 unique vessels qualifying for the directed herring fishery.**

Under the Proposed Action, there are 56 vessels that qualify for incidental catch permits that do not qualify for the directed fishery permits. Seventeen of these vessels were recently active. These vessels can retain up to 25 metric tons of herring per calendar day until 95% of the TAC is reached and the management area closes, at which time they would be limited to an incidental catch of 2,000 pounds per trip. This is the least restrictive alternative for the limited access incidental catch permit that was considered in this amendment. It provides opportunities in the fishery for historical vessels that would not have otherwise qualified (due to lack of adequate landings since 1993).

The majority of vessels that do not qualify under the Proposed Action have not been active in the herring fishery in recent years, and in some cases, for many years. Some have switched to other fisheries like mackerel and squid. The limited access incidental catch permit will likely accommodate the catch of herring on these vessels and allow them to continue normal operations in other fisheries. This should help to mitigate the impacts of not qualifying for a directed fishery permit in Areas 2/3.

While the majority of non-qualifying vessels have not been active in the herring fishery in recent years, there are four pair trawl vessels and nine single midwater trawl vessels that, on average, get about a third of their revenue from herring. The four pair trawl vessels average \$91,730 per year in herring revenue and the nine single midwater trawl vessels average \$21,420 per year. Of the four pair trawl vessels, three receive a significant level of revenue from herring (an average of \$122,000 per year) and the other vessel receives a minor amount of revenue from herring. Of the nine single midwater trawl vessels, only one receives a significant amount of revenue from herring while the other eight receive small amounts of revenue from herring (less than \$4,500 per year).

There are 16 midwater pair trawl and six single midwater trawl vessels that qualify for Area 1 but would not be able to fish in the purse seine/fixed gear area proposed in the Proposed Action (all of Area 1A) from June through September. Of the 16 affected pair trawl vessels, 9 have their primary landing port in Massachusetts, four in Maine, and three are from other states in the Northeast. Of the six affected single midwater trawl vessels, two have their primary landing port in Maine, three in Rhode Island, and one in Mid-Atlantic States. Recent landings data show that four of the midwater trawl vessels and 13 of the pair trawl vessels are actively fishing in Area 1A during the June through September period.

During 2002 through 2004, the affected midwater trawl vessels landed an average of 5,472 metric tons (worth about \$892,000), and the pair trawl vessels landed 21,298 metric tons of herring (worth about \$3,472,000) per season (June through September) from Area 1A. These landings represent 68% and 60% of the total Area 1A landings by these single and paired midwater trawl vessels, respectively. The midwater trawl vessel landings ranged from 266 to 3,372 metric tons, and the pair trawl vessel landings ranged from 90 to 3,263 metric tons. To compensate for potential losses, they will have the choice to either seek alternative fishing grounds or fisheries and/or to re-rig to purse seine in Area 1A during the time of the restriction. All of the above choices are associated with financial costs.

Pair trawl vessels that qualify for limited access directed fishery permits under the Proposed Action are 69% dependent on herring. Qualifying midwater trawl vessels are 38% dependent, and qualifying purse seine vessels are 100% dependent on herring. Dependence on herring for single midwater trawl vessels ranges from 38% to 45% for most alternatives considered in the Amendment 1 DSEIS. Bottom trawl vessels are the least dependent on herring. Under the Proposed Action, there are four pair trawl vessels that would not qualify for a directed limited access herring permits. These vessels have, on average, annual revenue from herring of \$91,730 (from an average of 25 days of herring fishing) which represents about 35% of their total revenue from all species.

Based only on the potential catch measures of the 28 active vessels that qualify for all areas, the potential catch measures range from **161,030 to 198,710 metric tons** (relative to current total TAC for the fishery of 150,000 mt). This provides some perspective on what the potential harvesting capacity of the limited access directed fishery fleet may be under the Proposed Action. The range of potential catch of the limited access directed fleet represents a 5% decrease from the status quo. The additional potential catch measures for the one active vessel that qualifies for Areas 2/3 only increases the potential catch measures slightly (cannot report due to confidentiality issues). The Proposed Action ranks in the middle of the alternatives considered in Amendment 1 relative to the potential catch measures (see Section 8.4.4 for a description of the potential catch measures).

The following table summarizes the impacts of the Proposed Action on fishery-related businesses and communities, which are discussed in great detail in Section 8.4 of this document. The table focuses on the impacts of the limited access program and the purse seine/fixed gear-only area, the two management measures that are likely to result in the greatest impact on affected participants in the fishery.

Executive Summary – Impacts of Proposed Action on Fishery-Related Businesses and Communities

Measures with Greatest Impacts	Limited Access Program and Permits Purse Seine/Fixed Gear-Only Area
LIMITED ACCESS DIRECTED FISHERY QUALIFIERS	
Area 1 (All Areas)	31
Areas 2/3 Only	3
TOTAL DIRECTED FISHERY QUALIFIERS = 34	
Limited Access Incidental Catch Qualifiers	56
TOTAL NUMBER OF LIMITED ACCESS VESSELS = 90	
Potential Catch Measure 1 for Area 1 Qualifiers (Active Directed Fishery Qualifiers Only)	161,030 mt
Potential Catch Measure 2 for Area 1 Qualifiers (Active Directed Fishery Qualifiers Only)	198,710 mt
POTENTIAL CATCH = 5% REDUCTION FROM NO ACTION	
Active Non-Qualifiers for Directed Fishery	2 purse seine 9 midwater trawl (2 qualify for incidental catch) 4 pair trawl (1 qualifies for incidental catch)
Average Revenues from Herring for Active Non-Qualifiers	Purse seine = cannot report Midwater trawl = \$21,420 Pair Trawl = \$91,730
Qualifying Vessels Impacted by Purse Seine/Fixed Gear Area	16 Pair Trawl 6 Midwater Trawl
Percentage of Total Area 1A Catch During Purse Seine/Fixed Gear Closure for Impacted Vessels	60% Pair Trawl 68% Midwater Trawl

Impacts on Other Fisheries (Section 8.5)

Lobster Fishery

Clearly, the issue of most concern to the lobster fishery is the consistent supply of herring for bait. This need is particularly acute during the summer months at the height of lobster season. Any measure that would disrupt this flow/access could have significant impacts on participants in the lobster fishery – and secondary and tertiary stakeholders that are dependent on them (such as families, lobster dealers, and restaurants). The demand for bait may have increased since Amendment 5 and 7 to the Multispecies Fishery Management Plan that reduced access to groundfishing. Particularly in Maine, former gillnetters turned to lobster fishing as a more viable alternative.

In general, the Proposed Action as well as most of the management alternatives that were considered during the development of Amendment 1 are not expected to substantially alter the supply of herring for lobster bait and/or result in any significant impacts on the lobster fishery. This is because none of the measures in this amendment change the total removals from the fishery, i.e., the overall amount of herring that can be landed and supplied to the lobster bait market. The limited access provisions are not likely to have a significant impact because there should be an adequate number of vessels with limited access

permits to supply the market under any of the proposed qualification criteria. This is particularly true under the Proposed Action, which provides 36 vessels with access to the directed fishery in Area 1; in general, about 30-35 vessels land 99% of the Area 1A TAC during a fishing year. The minimal impacts of the limited access program on the lobster fishery, however, must be considered in conjunction with the potential impacts of the proposed purse seine/fixed gear-only area.

While herring that is utilized for lobster bait could come from any of the management areas, lobster fishermen in Maine prefer fresh bait and have consequently increased their reliance on herring from Area 1A. Therefore, there could be some impacts associated with the proposed purse seine/fixed gear only area, which includes all of Area 1A where most lobster bait comes from at this time. The more restrictive purse seine/fixed gear area, which is proposed in this Amendment, may limit the number of vessels fishing for herring in Area 1A during the peak season of demand (summer) such that the supply of bait could be affected.

Currently, there are only about five purse seine vessels in the herring fishery. However, if there is enough financial incentive to do so, some midwater trawl vessels may re-rig to purse seining in order to fish in Area 1A during the summer months and supply the lobster bait market. Moreover, lobster fishermen would likely seek alternative bait if the supply of herring is inconsistent or if herring is not available for bait at some time. While alternative baits may not be preferable, it is likely that fishermen would utilize them in order to remain fishing during the peak season. There may be costs associated with utilizing alternative baits. Moreover, the price for herring could increase if supply is disrupted considerably. The extent to which this will occur and the associated impacts cannot be predicted at this time.

Mackerel Fishery

The mackerel and herring fishery often overlap, and efforts have been made by the Council to take the needs of participants in this fishery into account. The limited access provisions contained in the Proposed Action affect participants in the mackerel fishery if they do not qualify for a limited access permit to fish for herring. The overlap between the two fisheries would make it very difficult for a mackerel vessel to fish for mackerel without catching any herring incidentally. There would obviously be costs associated with prohibiting non-limited access vessels from possessing and/or landing any herring when they are fishing for mackerel.

To characterize the impacts of the Proposed Action and other alternatives considered in Amendment 1 on vessels in the Atlantic mackerel fishery, logbook data from 2001 through 2004 were examined to identify recently-active vessels participating in the mackerel fishery. Thirty five (35) vessels were identified which averaged greater than 10 metric tons of mackerel per year over the 2001-2004 period. These 35 vessels are the focus of the analysis of impacts on the mackerel fishery.

The Proposed Action qualifies 22 mackerel vessels for limited access directed fishery permits in all areas. The Proposed Action does not qualify any mackerel vessels for Areas 2&3 only (since most qualify for all areas). Under the Proposed Action, 6 vessels do not qualify for any type of limited access fishery permit (others qualify for a limited access incidental catch permit). The Proposed Action qualifies the largest number of mackerel vessels (7) for limited access incidental catch permits. The proposed limited access incidental catch permit should mitigate the negative impacts of the limited access directed fishery program on mackerel vessels that may be excluded, and consequently, on the mackerel fishery overall.

Under the Proposed Action, no additional mackerel vessels qualify for limited access directed fishery permits for Areas 2/3 only since all qualify for all management areas. Again, the Proposed Action minimizes impacts on the mackerel fishery by providing a substantial proportion of mackerel vessels with access to the limited access directed herring fishery in all management areas. The Proposed Action

results in 13 of the recently-active mackerel vessels not qualifying for a limited access directed fishery permit. The average mackerel landings of these non-qualifiers is low, on average (less than 300 mt for all alternatives except Alternative 5). This indicates that these vessels are not highly dependent on Atlantic herring or mackerel at this time.

The measure to modify the regulatory definition of midwater trawl gear will affect vessels fishing with midwater trawl gear in the Atlantic mackerel and other fisheries. The regulatory definition of midwater trawl gear is not specific to the Atlantic herring fishery, and unless the Council specifies the gear for the herring fishery only in Amendment 1, all vessels using midwater trawl gear in all Northeast Region fisheries, will be required to comply with the gear definition established in this amendment.

Summary Table – Impacts Across All VECs

The following summary table characterizes the potential impacts of the management measures proposed in this amendment, as well as the alternatives that the Council considered during the amendment development on each of the five VECs – Atlantic herring, protected resources, physical environment and EFH, fishery-related businesses and communities, and other fisheries. It helps to provide a general understanding of the impacts of the Proposed Action and forms a basis for comparing alternatives and independent measures to each other and to the no action alternative. Measures that the Council ultimately rejected and/or eliminated from further consideration in Amendment 1 are not included in the following table, as this table relates only to the Proposed Management Action and its alternatives. The measures that were eliminated from consideration are described and analyzed throughout this document, however, to provide additional perspective on the impacts of the Proposed Action.

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
PROPOSED ACTION (Limited Access and Purse Seine/Fixed Gear Area)	Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Potentially Positive – with limited access program and seasonal purse seine/fixed gear only area	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – 34 vessels in all areas; 31 vessels in Area 1; 56 vessels for limited access incidental catch; potential catch measures similar to status quo; negative impacts from ps/fg area	Neutral/Low Negative – Impacts on supply of lobster bait unknown; impacts on mackerel mitigated by limited access incidental catch permit
No Action Alt – No Amendment 1	Negative – no controls on capacity/race to fish	Potentially Negative with no controls on increases in midwater trawl and pair trawl gear	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral or Negative – depends on economic conditions/factors in an open access fishery – 54 active vessels	Neutral
Alternative 1	Low Negative/Neutral	Potentially Positive with the addition of several of the independent measures	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral or Negative – depends on economic conditions/factors in an open access fishery – 54 active vessels	Neutral
Alternative 2	Low Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Potentially Positive with the elimination of the open access fishery and addition of a limited access program	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – 36 vessels in all areas; 10 vessels in Areas 2/3; potential catch similar to status quo	Neutral
Alternative 3	Low Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Positive with the addition of limited access in 1A and 1B, permit moratorium in areas 2/3 and the seasonal proposed purse seine/fixed gear only area, although some species still subject to risk of entanglement	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – 57 vessels in all areas; trigger may increase short-term opportunities; potential catch similar to status quo; impacts 25 trawl vessels restricted by ps/fg area (potentially low negative)	Neutral/Low Negative – Impacts on supply of lobster bait unknown

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
Alternative 4	Low Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Positive with the addition of limited access in 1A and 1B, permit moratorium in areas 2/3 and the seasonal proposed purse seine/fixed gear only area, although some species still subject to risk of entanglement	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – 38 vessels in all areas; 7 vessels in Areas 2/3 once trigger is reached; trigger may increase short-term opportunities but delays negative impacts for non-qualifiers; potential catch similar to status quo; impacts 24 trawl vessels restricted by ps/fg area (potentially low negative)	Neutral/Low Negative – Impacts on supply of lobster bait unknown
Alternative 5	Low Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Positive with restrictive limited access criteria, but no purse seine/fixed gear only area	Neutral – herring gear impacts are not more than minimal and temporary in nature	Low Negative – 29 vessels in all areas; 13 vessels in Areas 2/3; 13 of 29 vessels qualify for priority permit in 1A; more non-qualifiers in Area 1, more negative impacts; potential catch 18-20% lower than status quo	Neutral/Low Negative – Impacts on supply of lobster bait unknown; possible impacts on mackerel fishery for non-qualifiers
Alternative 6	Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns	Positive with limited access program and seasonal purse seine/fixed gear only area	Neutral – herring gear impacts are not more than minimal and temporary in nature	Negative – 32 vessels in all areas; 13 vessels in Areas 2/3; use of control date in Area 1 increases negative impacts; potential catch 40-45% lower than status quo	Neutral/Low Negative – Impacts on supply of lobster bait unknown; possible impacts on mackerel fishery for non-qualifiers

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
Alternative 7 PREFERRED IN DSEIS	Most Positive – measures may prevent overcapacity and address other biological/ ecosystem concerns; long-term benefits increase b/c most restrictive	Positive – with most restrictive limited access alternative and seasonal purse seine/ fixed gear only area	Neutral – herring gear impacts are not more than minimal and temporary in nature	Most Negative – 23 vessels in all areas; 13 vessels in Areas 2/3; use of control date in Area 1 increases negative impacts; potential catch 42-47% lower than status quo; 12 trawl vessels restricted by ps/fg area (potentially negative)	Low Negative – most likely to impact supply of lobster bait, although impacts are unclear; impacts on mackerel fishery for non-qualifiers
Open Access Incidental Catch Permit					
No Action – no permit	No Impact	Neutral – effort already exists	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – impacts depend on nature of limited access program and number of non-qualifiers	Low Negative – impacts vessels in other fisheries that do not qualify for a herring limited access permit
1 MT permit	No Impact	Neutral	Neutral – herring gear impacts are not more than minimal and temporary in nature	Low Positive – benefits vessels that do not qualify for limited access permit	Low Positive – benefit participants in other fisheries that do not qualify for limited access permit
3 MT permit	No Impact	Neutral	Neutral – herring gear impacts are not more than minimal and temporary in nature	Positive – benefits vessels that do not qualify for limited access permit	Positive – benefit participants in other fisheries that do not qualify for limited access permit
5 MT permit	No Impact	Neutral	Neutral – herring gear impacts are not more than minimal and temporary in nature	Most Positive – benefits vessels that do not qualify for limited access permit	Most Positive – benefit participants in other fisheries that do not qualify for limited access permit

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
MSY					
No Action = 317,000 mt	Negative – increased risk of overfishing	Negative – potentially not precautionary	Neutral – herring gear impacts are not more than minimal and temporary in nature	Unknown but Potentially Negative if yield is above long-term sustainable levels	No Impact
MSY = 220,000 mt proxy	Positive – precautionary value ensures health of resource, increases buffer available for forage	Positive - utilizes precautionary approach and increases buffer for forage	Neutral/Low Positive – while herring gear impacts are temporary and minimal, lower MSY equates to decreased fishing activity potential	Positive/Negative – value allows for expansion of fishery beyond current harvest levels, but reduces future opportunities compared to status quo	Neutral/Low Positive – potential benefits from increased buffer available for forage
Determining the Distribution of Area-Specific Total Allowable Catches (TACs)					
No Action – Current approach	Neutral	No Impact	No Impact	No Impact	No Impact
Consider other Analytical Approaches	Neutral/Low Positive – Account for information regarding stock mixing and minimize risk of overfishing inshore component	Positive – given enhanced ability to evaluate and use a range of approaches	Neutral	Neutral	No Impact
TAC Set-Asides to Support Herring-Related Research					
No Action	Neutral	Neutral	Neutral	Neutral	No Impact
Authorize Research Set-Asides	Low Positive – Indirect benefit if new information collected contributes to management	Positive - if resources can be directed toward protected species interactions	Low Positive – Indirect benefit if new information collected relates to EFH	Neutral – Small possibility of negative impacts from reduced yield in Area 1A if some of the TAC is set-aside for research	No Impact

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
Timing of the Herring Fishery Specification Process					
No Action –Annual process	No Impact	No Impact	No Impact	No Impact	No Impact
Two-year process	Neutral - administrative measure	Neutral - administrative measure	Neutral - administrative measure	Neutral – impacts on business planning not clear; specific impacts considered in EA for specs	Neutral - administrative measure
Three year process	Neutral - administrative measure	Neutral - administrative measure	Neutral - administrative measure	Neutral – impacts on business planning not clear; specific impacts considered in EA for specs	Neutral - administrative measure
Adjustments to Management Area Boundaries					
No Action – Maintain current boundaries	No Impact	No Impact	No Impact	No Impact	No Impact
TRAC Recommendations	Positive – better reflect stock component distribution	Positive – may lead to better management of herring resource	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Positive – benefits if new areas reduce reporting errors and better reflect stock component distribution	Neutral
Measure 2 + Eliminate 1A/1B line	Low Positive – better reflect stock component distribution but may increase effort in inshore GOM	Positive if change leads to better management of herring resource	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Positive – benefits if new areas reduce reporting errors and better reflect stock component distribution; may involve TAC trade-offs; specific impacts to be considered in future EA for specifications	Neutral

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
Vessel Monitoring System Requirements					
No Action – Vessels that catch 500 MT +	Neutral/Low Positive – indirect benefit if quota overage prevented with improved monitoring	Negative – information necessary to better determine protected species impacts as well as monitor fishery	No Impact	No Impact	Neutral
All vessels with limited access permit	Neutral/Low Positive – indirect benefit if quota overage prevented with improved monitoring	Positive – will allow better monitoring of the fishery	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – costs associated with installing VMS for vessels that would be new to the program	Neutral
Vessel Upgrade Restrictions					
No Action – no restrictions	Low Negative – may allow excess harvesting capacity	Neutral – fishing power and effort not limited	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral	No Impact
Consistent with all limited access fisheries	Low Positive – indirect benefit if excess harvesting capacity prevented	Low positive	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Low Negative – may constrain future business opportunities	Neutral/Low Negative – may restrict mackerel fishery
ECPA proposal	Low Positive – indirect benefit if excess harvesting capacity prevented	Low positive – to some degree will limit fishing power and effort	Neutral – herring gear impacts are not more than minimal and temporary in nature	Neutral/Less Negative – may constrain future business opportunities	Neutral/Low Negative – may restrict mackerel fishery
Measures to Address Fixed Gear Fisheries					
No Action	No Impact	Neutral	No Impact	Neutral/Low Negative – impacts of reduced opportunities for fixed gear fishermen	No Impact
Include catch in New Brunswick weir fishery catch	Neutral/Low Negative – potential to overfish 20,000 mt TAC if landings not monitored closely	Positive – ensures availability of herring to Downeast fishery, but will also have a positive effect on availability of herring as prey species	Neutral – herring gear impacts are not more than minimal and temporary in nature	Low Positive – benefits Downeast fixed gear fishery	No Impact
TAC set-aside in Area 1A (500 MT)	Impacts considered in future fishery specification EA	Positive – same as above	Neutral – herring gear impacts are not more than minimal and temporary in nature	Low Positive – benefits fixed gear fishery in Area 1A, but increased reporting burden	No Impact

Executive Summary – Impacts of the Proposed Action (Shaded) and Other Alternatives on the Five VECs Identified for Consideration

	Atlantic Herring	Protected Resources	Physical Environment and EFH	Fishing Businesses and Communities	Other Fisheries
Regulatory Definition of Midwater Trawl Gear					
No Action – no change	No Impact	No Impact	No Impact	No Impact	No Impact
Modified per Enforcement OS	No Impact	No Impact	Neutral/Low Positive – to the extent that minimal bottom contact is further reduced	Low Negative – costs associated with gear modifications	Neutral/Low Negative – may impact vessels in other pelagic fisheries like mackerel
Modified per West Coast/PFMC	No Impact	No Impact	Neutral/Low Positive – to the extent that minimal bottom contact is further reduced	Low Negative – costs associated with gear modifications	Neutral/Low Negative – may impact vessels in other pelagic fisheries like mackerel
Modified per ECPA	No Impact	No Impact	Neutral/Low Positive – to the extent that minimal bottom contact is further reduced	Low Negative – costs associated with gear modifications	Neutral/Low Negative – may impact vessels in other pelagic fisheries like mackerel

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List of Acronyms

ABC	Allowable Biological Catch
ACOE	Army Core of Engineers
AHE	Affected Human Environment
APA	American Pelagic Association
ASMFC	Atlantic States Marine Fisheries Commission or Commission
B	Biomass
BT	Border Transfer
CAA	Catch at Age
CEQ	Council on Environmental Quality
CHOIR	Coalition for the Atlantic Herring Fishery's Orderly, Informed, and Responsible Long-Term Development
CZMA	Coastal Zone Management Act
DAH	Domestic Annual Harvest
DAP	Domestic Annual Processing
DEA	Data Envelopment Analysis
DMF	Division of Marine Fisheries
DMR	Department of Marine Resources
DSEIS	Draft Supplemental Environmental Impact Statement
DWF	Distant-Water Fleets
EA	Environmental Assessment
ECPA	East Coast Pelagic Association
ECTA	East Coast Tuna Association
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
E.O.	Executive Order
ESA	Endangered Species Act of 1973
F	Fishing Mortality Rate
FEIS	Final Environmental Impact Statement
FMP	Fishery Management Plan
FSEIS	Final Supplemental Environmental Impact Statement
FY	Fishing Year
GB	Georges Bank
GEA	Gear Effects Evaluation
GIFA	Governing International Fisheries Agreement
GMRI	Gulf of Maine Research Institute

GOM	Gulf of Maine
GRT	Gross Registered Tons
HAPC	Habitat Area of Particular Concern
HCA	Habitat Closed Area
HPTRP	Harbor Porpoise Take Reduction Plan
ICNAF	International Commission for the Northwest Atlantic Fisheries
IRFA	Initial Regulatory Flexibility Analysis
IOY	Initial Optimal Yield
IVR	Interactive Voice Response
IWC	International Whaling Commission
IWP	Internal Waters Processing
JVP	Joint Venture Processing
LWTRP	Large Whale Take Reduction Plan
M	Natural Mortality Rate
MA DMF	Massachusetts Division of Marine Fisheries
MAFMC	Mid-Atlantic Fishery Management Council
ME DMR	Maine Department of Marine Resources
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Statistical Survey
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
mt	Metric Tons
NAO	North Atlantic Oscillation
NB	New Brunswick
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS	National Standard
NT	Net Tonnage
NSGs	National Standard Guidelines
OCS	Outer Continental Shelf
OLE	Office of Law Enforcement
OY	Optimum Yield
PBR	Potential Biological Removal
PDT	Plan Development Team

PS/FG	Purse Seine/Fixed Gear
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
SARC	Stock Assessment Review Committee
SAV	Submerged Aquatic Vegetation
SAW	Stock Assessment Workshop
SSB	Spawning Stock Biomass
SSC	Scientific and Statistical Committee
SFA	Sustainable Fisheries Act
TAC	Total Allowable Catch
TALFF	Total Allowable Level of Foreign Fishing
TC	Technical Committee
TRAC	Transboundary Resource Assessment Committee
TRT	Take Reduction Team
USAP	U.S. At-Sea Processing
USFWS	US Fish and Wildlife Service
VEC	Valued Ecosystem Component
VMS	Vessel Monitoring System
VPA	Virtual Population Analysis
VTR	Vessel Trip Report

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AMENDMENT 1 TO THE ATLANTIC HERRING FMP

This amendment document and final supplemental environmental impact statement (FSEIS) proposes and evaluates a suite of management measures designed to achieve specific goals and objectives for the Atlantic herring fishery (Section 3.0, p. 12). This document was prepared by the New England Fishery Management Council and its Herring Plan Development Team (PDT), in consultation with the National Marine Fisheries Service (NMFS, NOAA Fisheries), the Atlantic States Marine Fisheries Commission (ASMFC), and the Mid-Atlantic Fishery Management Council (MAFMC).

This amendment is being developed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, M-S Act) and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ). In 1996, Congress passed the Sustainable Fisheries Act (SFA), which amended and reauthorized the MSFCMA and included a new emphasis on precautionary fisheries management. New provisions mandated by the SFA require managers to end overfishing and rebuild overfished fisheries within specified time frames, minimize bycatch and bycatch mortality to the extent practicable, and identify and protect essential fish habitat (EFH).

Although this FMP amendment has been prepared primarily in response to the requirements of the MSFCMA and NEPA, it also addresses the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing a Fishery Management Plan or FMP amendment, the Council also must comply with the requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedures Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Data Quality Act (DQA), and Executive Orders 13132 (Federalism), 12866 (Regulatory Planning), and 13158 (Marine Protected Areas). These other applicable laws and executive orders help ensure that in developing an FMP/amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human environment. This integrated document contains all required elements of the FMP amendment, including a FSEIS as required by NEPA and information to ensure consistency with other applicable laws and executive orders.

1.0 DOCUMENT ORGANIZATION

This amendment is organized into the following two volumes:

Volume I: Amendment 1/FSEIS Document

This integrated document represents Volume I and includes Amendment 1 as well as its Final Supplemental Environmental Impact Statement (FSEIS) and Initial Regulatory Flexibility Act Analysis (IRFA).

Volume II: Amendment 1 Appendices

Volume II includes all appendices and supporting materials for Amendment 1:

- Appendix I.** Northeast Fisheries Science Center Reference Document 04-06: *Stock Assessment of the Gulf of Maine-Georges Bank Atlantic Herring Complex, 2003*
- Appendix II.** Recommendations from the Meeting of the Council's Scientific and Statistical Committee (SSC) – June 19, 2003
- Appendix III.** Interest Group Proposals submitted for consideration in Amendment 1

- Appendix IV.** Draft Quota Allocation and DAS Options Document Reviewed at March 2004 Council Meeting
- Appendix V.** Research Paper: *The Role of Atlantic Herring, Clupea Harengus, in the Northwest Atlantic Ecosystem* (NEFMC Staff September 2003)
- Appendix VI.** Gear Effects Evaluation for Amendment 1 to the Herring FMP (EFH component)
- Appendix VII.** Project Report: *Using Observers to Monitor Status of Atlantic Herring Spawning Stocks and Groundfish Bycatch in the Gulf of Maine* (Maine Department of Marine Resources February 17, 1999)
- Appendix VIII.** Industry Report: *Herring Fishery Gear Selectivity Seminar, December 13, 2004*
- Appendix IX.** Consensus Report: *Technical Review of the Gulf of Maine Research Institute's Fishery Independent Herring Acoustic Survey, March 15/16, 2005*
- Appendix X.** Bycatch and Bycatch Monitoring – Background Information
- Appendix XI.** Detailed Community Profiles for Amendment 1 *Communities of Interest*

2.0 BACKGROUND AND PURPOSE

2.1 BRIEF MANAGEMENT HISTORY

Atlantic sea herring stocks were first managed in 1972 through the International Commission for the Northwest Atlantic Fisheries (ICNAF). ICNAF regulated the international fishery until the United States withdrew from the organization in 1976 with the passage of the Magnuson Fishery Conservation and Management Act (now Magnuson-Stevens, MSFCMA). From 1976-1978, the National Marine Fisheries Service (NMFS, NOAA Fisheries) developed a Preliminary Management Plan (PMP) to regulate foreign fishing for herring in the U.S. Exclusive Economic Zone (EEZ). Under the aegis of the MSFCMA, the newly-established New England Fishery Management Council (NEFMC) developed a Fishery Management Plan (FMP) for Atlantic herring, which was approved by the Secretary of Commerce and implemented on December 28, 1978. In 1982, NMFS withdrew the Federal Herring FMP once it became clear that catch quotas for adult herring in the Gulf of Maine were not enforced in State waters. In the absence of a Federal FMP, Atlantic herring was placed on the prohibited species list, thereby eliminating directed fisheries by foreign nationals or joint ventures in the EEZ and requiring any herring bycatch by such vessels to be discarded.

While directed fishing for Atlantic herring was prohibited in Federal waters in 1983, the herring fishery in State waters was managed through an agreement among the States of Maine, New Hampshire, Massachusetts, and Rhode Island. The final draft of the “Interstate Sea Herring Management Plan of Maine, New Hampshire, Massachusetts, and Rhode Island” was adopted in late 1983 and formally recognized by the Atlantic States Marine Fisheries Commission (ASMFC) in 1987. The premise of the

Interstate Herring FMP was to gather information to further develop and facilitate the implementation of a more robust management program for Atlantic herring in the future. The Interstate FMP also protected spawning herring through spawning closures and promoted complementary management throughout the species' range.

As the size of the resource grew, so did the interest in Internal Water Processing (IWP) operations. It became clear that the 1983 Interstate FMP was no longer adequate to manage the U.S. Atlantic herring resource. Utilizing spawning closures as the primary management tool, the agreement was not comprehensive enough to maintain a healthy resource or equitably distribute IWP shares between the States with IWP applicants. In 1993, a second Memorandum of Understanding (MOU) was circulated among the States of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York and New Jersey. Through the MOU, the participating States demonstrated their intent to cooperatively manage Atlantic herring. The ASMFC developed the Atlantic Herring Fishery Management Plan in 1993 to address the growth of the herring resource, formalize the allocation process for IWP shares, and lay the foundation for a joint ASMFC-NEFMC management plan (ASMFC 1993).

The New England Council's Herring FMP became effective on January 10, 2001 and included administrative and management measures to ensure effective and sustainable management of the herring resource. The FMP establishes Total Allowable Catches (TACs) for each of four management areas as the primary control on fishing mortality. Other elements of the Federal Herring FMP include requirements for vessel, dealer, and processor permits as well as reporting requirements and restrictions on the size of vessels that can take, catch, or harvest herring. Framework Adjustment 1 to the Council's Herring FMP was implemented for the 2002 fishing year (January 1, 2002 – December 31, 2002) and currently remains in effect. Framework 1 split the TAC for Area 1A (inshore Gulf of Maine/GOM) into two seasonal components in an attempt to prevent an early closure of the fishery in 1A when the TAC is reached.

The Atlantic Herring FMP can be referenced for more information regarding the history of management of the Atlantic herring fishery in both State and Federal waters.

2.2 RELATIONSHIP TO ASMFC INTERSTATE FMP FOR ATLANTIC HERRING

The ASMFC developed the Atlantic Herring Interstate Fishery Management Plan in 1993 to address the growth of the herring resource, formalize the allocation process for IWP shares, and lay the foundation for a joint ASMFC-NEFMC management plan (ASMFC 1993). Amendment 1 to the ASMFC's Interstate Fishery Management Plan for Atlantic Herring was developed in close coordination with the New England Fishery Management Council as a more comprehensive Federal FMP was drafted during 1997 and 1998. The complementary FMPs are designed to minimize the chance of a population collapse due to overfishing, reduce the risk of recruitment failure, promote orderly development of the offshore fishery, reduce impacts to species that are ecologically dependent upon Atlantic herring, and minimize adverse effects on participants in the fishery.

ASMFC Amendment 1 defines overfishing and biological reference points based on an estimate of maximum sustainable yield (MSY) for the entire stock complex. In order to maintain consistency between Amendment 1 and the Council's FMP, the Commission's Atlantic Herring Section adopted the same overfishing definition and biological reference points as the Council, which were created under guidelines stipulated in the revised Magnuson-Stevens Fishery Conservation and Management Act. Both FMPs provide a process for determining the annual specifications for the fishery and by management area. Both plans contain institutional frameworks for developing and implementing future management action involving the Commission, the New England and Mid-Atlantic Councils, and (possibly) Canada.

The two primary differences between the Council’s FMP and the ASMFC FMP are the spawning restrictions and days out provisions included in the ASMFC FMP.

ASMFC Amendment 1 delineates the areas with spawning restrictions and describes criteria for determining the start and duration of the closure period (Figure 1). The restrictions allow vessels to fish, take, land, or possess spawn herring from a restricted spawning area as long as the spawn herring comprise less than 20% by number of the amount of herring on board. The ASMFC amendment defines spawn herring as mature sea herring in ICNAF gonadal stages V and VI. In addition to the 20% spawning tolerance, non-directed fisheries may land 2,000 pounds of spawn herring as bycatch and will not be accountable for the 20% tolerance provision. The regular spawning closure period extends for four weeks (Table 1). If catch sampling after the end of the initial restricted period determines that 25% or more mature herring, by number, have yet to spawn, then the spawning restrictions would resume for an additional two weeks.

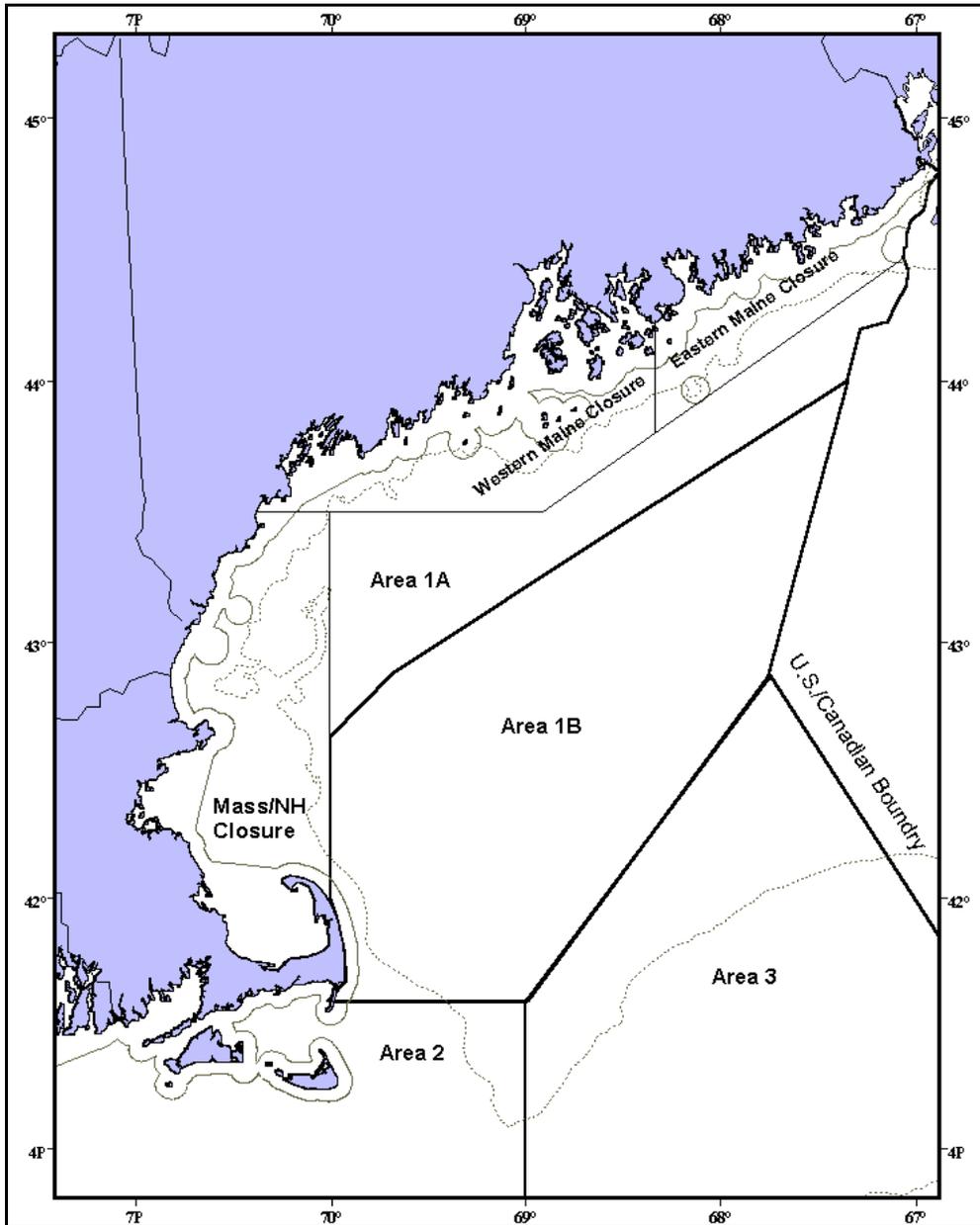
In July 2000, the Section approved Addendum I to re-address the protection of spawning areas and change the due date for annual State compliance reports to February 1. Because NMFS disapproved the spawning closures for the Federal waters of Management Area 1A (inshore Gulf of Maine) in the Council’s FMP, the Commission developed Addendum I to redefine the State waters spawning areas outline in Amendment 1. Addendum I also includes measures designed to reduce the exploitation and disruption of herring spawning aggregations by imposing a landing restriction in State ports for herring caught in the spawning areas, except that some States allow a 20% tolerance for spawn herring (Maine and Massachusetts).

The Commission approved Technical Addendum #1a (2001) to change the delineation of the Eastern Maine spawning boundary because the spawning aggregations were not adequately protected in 2000. Addendum II was developed in conjunction with the Council’s Framework Adjustment 1 to allocate the Management Area 1A Total Allowable Catch (TAC) on a seasonal basis. Addendum II also specifies the procedures for allocating the annual Internal Waters Processing (IWP) quota.

Table 1 Historical and Default Dates for ASMFC Spawning Area Closures (see Figure 1 for spawning areas)

YEAR	SPAWNING AREA					
	Eastern ME		Western ME		MA/NH	
	Start	End	Start	End	Start	End
2000	15-Aug	11-Sept	1-Sept	21-Sept	21-Sept	18-Oct
2001	26-Aug	23-Sept	2-Sept	30-Sept	21-Sept	18-Oct
2002	15-Aug	12-Sept	13-Sept	11-Oct	4-Oct	1-Nov
2003	1-Sept	29-Sept	1-Sept	29-Sept	21-Sept	19-Oct
Default Date	15-Aug	13-Sept	1-Sept	30-Sept	21-Sept	19-Oct

Figure 1 ASMFC Inshore Spawning Restriction Areas



Pursuant to Amendment 1 to the Interstate Fishery Management Plan for Atlantic Herring, States are required to implement the days out provision (landing prohibition) for an area where the TAC is consistently fully harvested. The provision was designed to slow the herring catch rate primarily to ensure supply to the lobster bait market. The peak demand for herring occurs late in the fishing year when the available quota is almost fully harvested in Area 1A. With landings prohibited two days of the weeks earlier in the fishing year, a greater portion of the quota remains during the time of the peak demand. Additionally, the days out provision was designed to move effort out of the areas where catches are approaching the TAC and into areas where the TAC goes largely unused. The days out provision allows incidental catches (up to 2,000 pounds) of herring to be landed from an area with the days out provision in effect.

The days out provision in ASMFC Amendment 1 can lead to a four-day landing prohibition, resulting a major disruption of supply to the markets. In response to the negative impact, the ASMFC Atlantic Herring Section modified the implementation of the days out provision to be conservation-equivalent to Amendment 1. Each year, the fishery's closure date is projected based on the implementation of the Amendment 1 days out provision. This projection is compared to the closure date of a set number of days out of the fishery (one, two or three days out are usually analyzed) starting on a specific date earlier in the fishing year. These projections are based on historical catch rates for a given management area reported through the NMFS Interactive Voice Reporting (IVR) system. The Section always selects a scenario that is more conservative than the provision in ASMFC Amendment 1.

If the catch in a particular area or sub-area is projected to be harvested before the end of a given period, States within the management area will meet to discuss implementation of the landing prohibition. To prevent an early closure of a management area or sub-area, the States will annually agree to the start date, number of days out of the fishery, as well as which consecutive days of the week will have landing restrictions. While the start time for the landing restriction may vary by State, the States must implement the landing restriction for the same consecutive days each week.

Today, Atlantic herring continues to be managed by the NEFMC in Federal waters and the ASMFC in State waters. The Commission's adoption of Amendment 1 to the Interstate FMP was a vital step towards creating a complementary and comprehensive herring management program in both State and Federal waters when the Council's Herring FMP was implemented. The ASMFC Herring Section and the Council still work closely to establish the annual total allowable landings (TACs) in four management areas and sub-areas through a joint specification process.

ASMFC recently completed development of Amendment 2 to the Interstate FMP to maintain consistency, to the extent possible, with the Federal FMP and Amendment 1 to the Council's Herring FMP. Consistent with management measures contained in this Federal Amendment, Amendment 2 revises management area boundaries, biological reference points, the specification process, research set-asides, internal waters processing operations, and measures to address fixed gear fisheries. ASMFC Amendment 2 also requires fixed gear fishermen to report herring catches through the IVR program, a requirement which is essential to ensure the success of the fixed gear measures included in both the ASMFC and Council amendments.

Amendment 2 differs from the Federal Amendment with regard to its effort control measures (days out) and spawning restrictions. The days out measure was adopted as it is currently being implemented by States. By April of each fishing year, if the catch in a particular area is projected to be harvested before the end of a given period, states will meet to discuss and agree to the start date, number of days out, and which consecutive days of the week will have landings restrictions. Under this measure, fixed gear fisheries are exempt from the days out provision and off-loading of herring is permitted during days out of the fishery; the intent of the provision is to have herring vessels at the dock at the time the restriction is set to begin. Vessels with an Atlantic herring permit will be allowed to participate in other fisheries for other species in restricted areas during the days out provision. For spawning restrictions, a zero tolerance provision was approved, which will prohibit any vessel from fishing for, taking, landing, or possessing spawn herring from or within a restricted spawning area. East of Cutler fixed gear fisheries will be exempt from spawning restrictions.

2.3 PURPOSE AND NEED FOR ACTION

Overall, Amendment 1 to the Atlantic Herring FMP is needed to improve resource conservation, address new scientific information to the extent possible, minimize the potential for excess harvesting capacity in the fishery, and provide a platform to promote long-term economic stability for harvesters, processors, and fishing communities. This amendment is designed to meet all the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (M-S Act), as well as other applicable laws, for the Atlantic herring fishery.

The primary purpose of this amendment is to modify the management program for the Atlantic herring fishery by:

1. Implementing limited access in the herring fishery, as the Council committed to do shortly after developing the Herring FMP in 1999;
2. Implementing management measures to address growing concerns about localized depletion of the inshore Gulf of Maine stock as well as the importance of herring as a forage species; and
3. Incorporating new stock assessment information as appropriate.

While the overall TAC for herring is more than recent landing levels, the TAC in the inshore Gulf of Maine (Area 1A) represents at least 60% of the total landings and has triggered a closure of the herring fishery in this area every year. Harvesting capacity in this area may need to be restricted to avoid problems that result from excess fishing capacity. One of these problems could be a “race to fish” as increasing numbers of vessels try to catch the TAC before the others. Besides generating inefficiencies, the available TAC in this area will likely continue to be taken before the fishing year is over. This can disrupt the supply of herring for various markets and affect stability in the fishery.

Management of a number of fisheries in the Northeast Region is complicated by excess fishing capacity, which makes it difficult to reduce fishing mortality to levels necessary for stock rebuilding. In order to avoid the problems experienced in these fisheries, there has been continued interest in developing a limited access system for the herring fishery to possibly address existing capacity problems in Area 1A and avoid such problems in other areas as the fishery continues to develop.

In July 1999, the Council made a formal commitment to develop a limited or controlled access program for the herring fishery. The National Marine Fisheries Service (NMFS), at the request of the Council, established September 16, 1999 as a control date for the Atlantic herring fishery in Federal waters. This means that should the Council choose to implement a limited access program, participants who enter the herring fishery on or after September 16, 1999 may be treated differently than those with a history in the fishery prior to the control date. Existing domestic harvesting capacity within fisheries of the Northeast Region may be treated differently than new capacity. Utilization of the September 1999 control date for limiting access to the herring fishery is therefore under consideration in this amendment.

Scoping meetings for an amendment to the Herring FMP were conducted in early 2000, shortly after completion of the Herring FMP, and comments were sought on limited/controlled access in the herring fishery, particularly in Area 1A. At that time, concern about excess capacity in the fishery was focused on Area 1A, as Areas 2 and 3 (southern New England and Georges Bank) could support increased fishing effort and additional capacity. However, because of other issues and management priorities, the Council was not able to develop an amendment to the Herring FMP at that time. Since 2000, some new markets for herring emerged, additional harvesting and processing capacity developed, and catches from Areas 2 and 3 increased somewhat, suggesting that capacity in these areas may be different now than in 2000. For this reason, the Council is proposing a limited access program for all herring management areas. There is

an opportunity to take a proactive approach in Areas 2 and 3, possibly avoiding future problems with excess capacity in these areas.

In February 2003, the Transboundary Resource Assessment Committee (TRAC), composed of both U.S. and Canadian scientists, met in St. Andrew's, New Brunswick, to undertake a joint peer review of the status of the transboundary herring resource and to provide collective guidance for fisheries managers to consider. However, the two assessments presented at the TRAC Meeting produced different results, and no overall consensus was reached regarding which assessment is most accurate. Consequently, no specific biological reference points were provided by the joint peer review group.

During the review of TRAC assessment results on June 19, 2003, the Council's Scientific and Statistical Committee (SSC) agreed that some level of recovery has occurred in the herring stock complex, but that it might not be at the level suggested by the Forward Projection Analysis (FPA), the model presented by U.S. scientists at the TRAC Meeting. The consensus of the SSC was also that herring biomass was probably not as low as suggested by the Canadian assessment (ADAPT model). At the 27th Stock Assessment Workshop in 1998, maximum sustainable yield (MSY) for the Atlantic herring complex was estimated to be 317,000 mt, which is the current value of MSY included in the Herring FMP, but the SSC considered this to be too high and not precautionary. In the face of scientific uncertainty, therefore, it is appropriate to set a relatively conservative proxy for MSY until another stock assessment is conducted and results in one estimate of MSY that is supported by a scientific peer-review through a process like the TRAC or the Stock Assessment Review Committee (SARC). As a result, changes to the specification of MSY based on the TRAC assessment results and SSC advice are being proposed in this amendment.

Another purpose of this amendment and FSEIS is to comply with section 303(a)(7) of the Magnuson-Stevens Fisheries Conservation Management Act (MSA). More specifically, the purpose is to evaluate the potential adverse effects of fishing on Atlantic herring EFH and on the EFH of other species, and to minimize to the extent practicable any adverse effects which are more than minimal and not temporary in nature. This action is being undertaken to ensure the conservation and enhancement of EFH as required under the MSA.

The EFH components of the Atlantic Herring FMP were developed as part of an Omnibus Amendment prepared by the New England Fishery Management Council for all NEFMC managed species (NEFMC 1998a). The EFH Omnibus Amendment was approved for Atlantic herring by the Secretary of Commerce on October 27, 1999. The final rule implementing the Atlantic herring FMP to allow for the development of a sustainable Atlantic herring fishery was published on December 11, 2000 (65 FR 77450).

The purposes and needs for this amendment are expected to advance the goals and objectives of the herring management program, as modified in Section 3.2. The proposed management measures are intended to achieve both the goals and objectives of the management program as well as the primary purposes of this action (Table 2).

Table 2 Management Measures Proposed to Meet Specific Management Objectives

MANAGEMENT OBJECTIVE	ALTERNATIVE(S)/MEASURE(S) DESIGNED TO MEET THE MANAGEMENT OBJECTIVE
Manage the Atlantic herring fishery at long-term sustainable levels consistent with the National Standards of the Magnuson-Stevens Fishery Conservation and Management Act (GOAL)	All elements of Proposed Action (Section 4.0)
Harvest the Atlantic herring resource consistent with the definition of overfishing contained in the Herring FMP and prevent overfishing	All elements of Proposed Action (Section 4.0), MSY specification (Section 4.5)
Prevent the overfishing of discrete spawning components of Atlantic herring	All elements of Proposed Action (Section 4.0); Determining the Distribution of Area-Specific TACs (Section 4.6); Adjustments to Management Area Boundaries (Section 4.3)
Avoid patterns of fishing mortality by age which adversely affect the age structure of the stock	All elements of Proposed Action (Section 4.0); Determining the Distribution of Area-Specific TACs (Section 4.6)
Provide for the orderly development of the herring fishery in inshore and offshore areas, taking into account the viability of current and historical participants in the fishery	All elements of Proposed Action (Section 4.0); Open Access Incidental Catch Permit (Section 4.2); Measures to Address Fixed Gear Fisheries (Section 4.9);
Provide for long-term, efficient, and full utilization of the optimum yield from the herring fishery while minimizing waste from discards in the fishery. Optimum yield is the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, taking into account the protection of marine ecosystems, including maintenance of a biomass that supports the ocean ecosystem, predator consumption of herring, and biologically sustainable human harvest. This includes recognition of the importance of Atlantic herring as one of many forage species of fish, marine mammals, and birds in the Northeast Region	All elements of Proposed Action (Section 4.0)
Prevent excess capacity in the harvesting sector	All elements of Proposed Action (Section 4.0); Open Access Incidental Catch Permit (Section 4.2); Vessel Upgrade Restrictions (Section 4.1.4.2)
Minimize, to the extent practicable, the race to fish for Atlantic herring in all management areas	All elements of Proposed Action (Section 4.0), Limited Access Program (Section 4.1)
Provide, to the extent practicable, controlled opportunities for fishermen and vessels in other mid-Atlantic and New England fisheries	All elements of Proposed Action (Section 4.0), Limited Access Program (Section 4.1); Open Access Incidental Catch Permit (Section 4.2)

Table 2 continued. Management Measures Proposed to Meet Specific Management Objectives

MANAGEMENT OBJECTIVE	ALTERNATIVE(S)/MEASURE(S) DESIGNED TO MEET THE MANAGEMENT OBJECTIVE
Promote and support research, including cooperative research, to improve the collection of information in order to better understand herring population dynamics, biology and ecology, and to improve assessment procedures	TAC Set-Asides to Support Herring-Related Research (Section 4.8)
Promote compatible US and Canadian management of the shared stocks of herring	All elements of Proposed Action (Section 4.0); MSY (Section 4.5); Determining the Distribution of Area-Specific TACs (Section 4.6); Adjustments to Management Area Boundaries (Section 4.3)
Continue to implement management measures in close coordination with other Federal and State FMPs and the ASMFC management plan for Atlantic herring, and promote real-time management of the fishery	All elements of Proposed Action (Section 4.0)

Framework 43 to the Northeast Multispecies FMP (Bycatch Measures)

At its final meeting for Amendment 1 to the Herring FMP (January 31-February 2, 2006), the New England Fishery Management Council separated the measures to address bycatch in the herring fishery from Amendment 1 to the Herring FMP and agreed to submit these measures separately as Framework 43 to the Northeast Multispecies FMP (February 2006). This framework adjustment proposes management measures to address the bycatch of regulated multispecies, primarily haddock, in the Atlantic herring fishery. These management measures were included and analyzed in the Draft EIS and public hearing document for Amendment 1, which also represented a framework adjustment to the Groundfish FMP. The Council chose to separate this action and submit it prior to Amendment 1 so that these measures can be implemented more expeditiously, hopefully prior to the summer 2006 fishery. As a result, specific measures to address bycatch are not included in this amendment; the haddock catch cap was included in Framework 43, and NMFS is developing an omnibus amendment to Northeast Region FMPs to address Standardized Bycatch Reporting Methodology (SBRM). However, this document does provide background information about the current SBRM for the herring fishery, and it includes language that adds several management measures to address bycatch to the list of measures that can be implemented in the future through a framework adjustment to the Herring FMP or through the fishery specification process, whichever is most expeditious (see Section 4.12).

2.4 NOTICE OF INTENT AND SCOPING

The New England Fishery Management Council published a Notice of Intent (NOI) to announce its intent to develop this amendment and prepare a supplemental EIS to analyze the impacts of the proposed management alternatives on April 14, 2003. The purpose of the NOI was to alert the interested public to the re-commencement of the scoping process (initial scoping was conducted in 2000) and to provide for public participation in the development of this amendment, consistent with the requirements of NEPA.

NEPA provides a mechanism for identifying and evaluating the full spectrum of environmental issues associated with Federal actions and for considering a reasonable range of alternatives to avoid or minimize adverse impacts to the extent practicable. The scoping process is the first and best opportunity for members of the public to raise issues and concerns for the Council to consider during the development of an amendment. The Council relies on public input during the scoping process both to identify management issues and develop alternatives that meet the Herring FMP objectives. Public comments early in the amendment development process help the Council to address issues of concern in a thorough and appropriate manner.

A scoping document was prepared and distributed to inform the public of the Council's intent to gather information necessary for the preparation of the Amendment 1 SEIS and ask for suggestions and information on the range of issues to be addressed in this amendment. During the scoping period for Amendment 1 (April 14 – June 2, 2003), four scoping meetings were conducted, and numerous written comments were received. Comments received during the scoping process were considered carefully by the Council when developing the management alternatives under consideration in this amendment. A detailed summary of the scoping process and comments received is provided in Section 11.1.2 of this document (p. 645).

3.0 GOALS AND OBJECTIVES

The Council has identified one goal and several objectives for the herring management program that is being implemented in Amendment 1. The goals and objectives for Amendment 1, described in Section 3.2, are intended to supersede the original goals and objectives of the Herring FMP, which are described in Section 3.1. Where appropriate, the original goals and objectives of the Herring FMP have been carried over in the Amendment 1 goals and objectives, with slight modification in some cases.

3.1 ORIGINAL HERRING FMP GOALS AND OBJECTIVES

The Goals and Objectives of the Original Herring FMP (March 1999) are as follows:

GOALS

To achieve, on a continuing basis, optimum yield (OY) for the United States fishing industry and to prevent overfishing of the Atlantic sea herring resource. Optimum yield is the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, taking into account the protection of marine ecosystems, including maintenance of a biomass that supports the ocean ecosystem, predator consumption of herring, and biologically sustainable human harvest. Optimum Yield is based on the maximum sustainable yield (MSY) as reduced by any relevant economic, social, or ecological factor, and, in the case of an overfished fishery, provides for rebuilding to a level consistent with producing MSY.

To provide for the orderly development of the offshore and inshore fisheries, taking into account the viability of current participants in the fishery.

To provide controlled opportunities for fishermen and vessels in other mid-Atlantic and New England fisheries.

OBJECTIVES

1. To harvest the U. S. Atlantic herring resource consistent with the definition of overfishing contained in the plan.
2. To prevent the overfishing of discrete spawning components consistent with the national standards.
3. To avoid patterns of fishing mortality by age which adversely affect the age structure of the stock.
4. To provide adequate protection for spawning herring and prevent damage to herring egg beds.
5. To promote U.S. and Canadian cooperation in order to establish complementary management practices.
6. To implement management measures in close coordination with other Federal and State FMPs.
7. To promote research and improve the collection of information in order to better understand herring population dynamics, biology and ecology, and to improve assessment procedures and cooperation with Canada, and to move to real time management of herring.

8. To achieve full utilization from the catch of herring, including minimizing waste from discards in the fishery.
9. To maximize domestic use and encourage value added product utilization.
10. To promote the utilization of the resource in a manner which maximizes social and economic benefits to the nation, and taking into account the protection of marine ecosystems.
11. To facilitate the development of biologically and environmentally sound aquaculture projects in the EEZ that are compatible with traditional fisheries in the New England region, given that some projects may not occur in Federal waters without modifying one or more NEFMC fishery management plans.

The Amendment 1 goals and objectives supersede the above goals and objectives. Where appropriate, the original goals and objectives of the Herring FMP have been carried over in the Amendment 1 goals and objectives, with slight modification in some cases.

3.2 AMENDMENT 1 GOALS AND OBJECTIVES

The goals and objectives of the herring management program and the action proposed in this amendment are as follows:

GOAL: Manage the Atlantic herring fishery at long-term sustainable levels consistent with the National Standards of the Magnuson-Stevens Fishery Conservation and Management Act.

OBJECTIVES:

1. Harvest the Atlantic herring resource consistent with the definition of overfishing contained in the Herring FMP and prevent overfishing.
2. Prevent the overfishing of discrete spawning components of Atlantic herring.
3. Avoid patterns of fishing mortality by age which adversely affect the age structure of the stock.
4. Provide for the orderly development of the herring fishery in inshore and offshore areas, taking into account the viability of current and historical participants in the fishery.
5. Provide for long-term, efficient, and full utilization of the optimum yield from the herring fishery while minimizing waste from discards in the fishery. Optimum yield is the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, taking into account the protection of marine ecosystems, including maintenance of a biomass that supports the ocean ecosystem, predator consumption of herring, and biologically sustainable human harvest. This includes recognition of the importance of Atlantic herring as one of many forage species of fish, marine mammals, and birds in the Northeast Region.
6. Prevent excess capacity in the harvesting sector.
7. Minimize, to the extent practicable, the race to fish for Atlantic herring in all management areas.
8. Provide, to the extent practicable, controlled opportunities for fishermen and vessels in other Mid-Atlantic and New England fisheries.

9. Promote and support research, including cooperative research, to improve the collection of information in order to better understand herring population dynamics, biology and ecology, and to improve assessment procedures.
10. Promote compatible U.S. and Canadian management of the shared stocks of herring.
11. Continue to implement management measures in close coordination with other Federal and State FMPs and the ASMFC management plan for Atlantic herring, and promote real-time management of the fishery.

The management measures in the Herring FMP and contained in this amendment are intended to address the goal of managing this fishery consistent with the Magnuson-Stevens Act and/or one or more of the objectives identified above.

4.0 PROPOSED MANAGEMENT ACTION

This section describes all of the management measures proposed to be implemented in Amendment 1 to the Atlantic Herring FMP. Unless otherwise noted in the following subsections, any current management measures and provisions that pertain to the herring fishery and its participants are assumed to remain effective (status quo) upon the implementation of Amendment 1.

4.1 LIMITED ACCESS PROGRAM

This amendment will implement a limited access program for the herring fishery in all management areas. Separate limited access programs are proposed for Area 1 and Areas 2/3. In addition, an open access permit with a small possession limit are proposed for vessels that do not qualify for any of the limited access herring permits. The open access permit is described in Section 4.2 of this document. The details of the proposed limited access program are described in the following subsections.

Consistent with current regulations as well as the provisions specified in the following subsections and the Atlantic Herring FMP, the following vessels will **not** be required to obtain a permit (limited access or open access) to fish for, catch, possess, transport, land, or process Atlantic herring in or from the EEZ:

- A vessel that possesses herring solely for its own use as bait, providing the vessel does not have purse seine, midwater trawl, pelagic gillnet, sink gillnet, or bottom trawl gear on board; and
- A skiff or other similar craft used exclusively to deploy the net in a purse seine operation during a fishing trip of a vessel that is permitted to fish for Atlantic herring under the proposed program.

4.1.1 Limited Access Directed Fishery Permit (All Areas and Areas 2/3 Only)

This amendment will implement two different limited access “directed fishery” programs for Area 1 (1A+1B) and Areas 2/3. The limited access directed fishery permits are intended to qualify vessels with the most significant history and participation in the herring fishery. Most of these vessels are currently Category 1 herring permit holders and land the vast majority of Atlantic herring during the fishing year. Vessels that qualify for the limited access directed fishery permits will not be restricted by a possession or trip limit for herring; they will fish according to the regulations established through this amendment, the Herring FMP, and the fishery specification process (area-based TACs).