#### RECORD OF DECISION

## FINAL ENVIRONMENTAL IMPACT STATEMENT

# MINIMIZING IMPACTS OF THE ATLANTIC HERRING FISHERY ON ESSENTIAL FISH HABITAT

# National Marine Fisheries Service Northeast Region

## I. DECISION TO BE MADE

This Record of Decision (ROD) documents the decision by the National Marine Fisheries Service (NMFS) Northeast Region regarding the need to minimize potential adverse impacts of the Atlantic herring fishery on essential fish habitat (EFH) through future management measures. This ROD is issued pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) NEPA regulations at 40 CFR Parts 1500-1508, and NMFS, NEPA environmental review procedures are NAO 216-6 Section 6.03(a) Environmental Review Procedures for Fishery Management Plan Actions. This decision is based upon the analyses included within the Final Environmental Impact Statement (FEIS) issued January 28, 2005 (70 FR 4119) for Minimizing Impacts of the Atlantic Herring Fishery on Essential Fish Habitat.

## II. INTRODUCTION

This is a non-traditional impact statement in the sense that it is not an analysis of a proposed federal action. Rather, it is an evaluation of whether future federal action is needed to minimize to the extent practicable possible adverse effects of fishing on Atlantic herring EFH and of Atlantic herring fishing on the EFH of other managed species. The genesis of this document derives from the settlement of the AOC vs. Daley lawsuit (discussed below) wherein NOAA Fisheries agreed to draft an EIS on this matter. Subsequent to the settlement, it became clear to NOAA fisheries that future federal action was unnecessary to minimize the adverse EFH impacts of the Atlantic herring fishery, and, accordingly, that traditional analysis under NEPA would not be triggered. Nevertheless, NOAA Fisheries agreed in the settlement to draft an EIS addressing EFH impacts of this fishery and the present document, its unconventional context notwithstanding, does just that.

The purpose of the FEIS 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).

During the NEFMC's development of the Atlantic Herring FMP, a lawsuit brought by several environmental organizations (American Oceans Campaign (AOC) *et al.* v. Daley *et al.*) resulted in a ruling by the U.S. District Court for the District of Columbia (Court) on September 13, 2000. In that ruling, the Court enjoined the Federal Defendants from enforcing the EFH amendments that were challenged in the suit (which included amendments to all of the New England Council's fishery management plans) until such time as they performed "a new and thorough EA or EIS" for each of the EFH amendments, in compliance with NEPA. On December 5, 2001, the Plaintiffs and the Federal Defendants proposed to the Court a Joint Stipulation and Order (Stipulation), which was accepted by the Court on December 17, 2001. In that Stipulation, the Federal Defendants, acting through the National Marine Fisheries Service (NMFS) were ordered to:

- 1) Prepare FEISs for all fisheries challenged in the lawsuit.
- 2) Comply with the requirements of all applicable statues, including NEPA; the Council on Environmental Quality (CEQ) NEPA implementing regulations, 40 C.F.R. Parts 1500-1508; and the National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6.
- 3) Include analyses of environmental impacts of fishing on EFH, including direct and indirect effects, as defined in the EFH regulations at 50 C.F.R. 600.810, and analyses of the environmental impacts of alternatives for implementing the requirement of the MSA, that the FMP "minimize, to the extent practicable, adverse effects on [EFH] caused by fishing."
- 4) Consider a range of reasonable alternatives for minimizing the adverse effects (as defined by the EFH regulations to be "any reduction in the quality or quantity of EFH") of fishing on EFH, including potential adverse effects. This range of alternatives will include "no action" or status quo alternatives and alternatives set forth specifying fishery management actions that can be taken by NMFS under the MSA. The alternatives may include a suite of fishery management measures, and the same fishery management measures may appear in more than one alternative.
- 5) Identify one preferred alternative, except that, in the FEIS, NMFS may elect, if it deems appropriate, to designate a subset of the alternatives considered in the draft EIS as the preferred range of alternatives, instead of designating only one preferred alternative.
- 6) Present the environmental impacts of the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among the options, as set forth in CEQ regulation 40 C.F.R. 1502.14.

The Stipulation required that NMFS approve an amendment, if required, to the Atlantic Herring FMP and implementing measures by no later than September 10, 2005. NMFS prepared the separate FEIS to fulfill terms of the Stipulation. Therefore, the FEIS evaluates the potential adverse effects of fishing on Atlantic herring EFH, including the effects of Atlantic herring fishing on the EFH of other species, and evaluates management measures to minimize to the extent practicable any adverse effect by the Atlantic herring fishery on EFH that is more than minimal and not temporary in nature.

## III. DESCRIPTION OF PROJECT ALTERNATIVES

This FEIS analyzes the environmental consequences of four management measures that could minimize adverse impacts (that are more than minimal and not temporary in nature) of fishing gears (mid-water trawls and purse seines) or practices used in the directed Atlantic herring fishery on Atlantic herring EFH or the EFH of any other federally-managed species in the Northeast region. Also included in the FEIS, as required by NEPA, is an analysis of the cumulative effects of each management alternative on four valued ecosystem components: EFH, the Atlantic herring resource, species protected by the Marine Mammal Protection Act and the Endangered Species Act, and the human environment, which includes the Atlantic herring fishery and human communities that could be affected by the proposed management alternatives.

- 1. The No Action Alternative is the preferred alternative in the FEIS and represents no additional action to minimize adverse impacts to EFH that are more than minimal and not temporary in nature. All other alternatives analyzed in the FEIS are compared to the No Action Alternative.
- 2. <u>Modifications To The Existing Regulatory Definition Of Midwater Trawls</u>
  <u>Alternative</u> consists of three separate definitions that are designed to improve its effectiveness at eliminating any bottom contact by the gear.
- 3. Prohibit The Use Of Midwater Trawls In Habitat Closed Areas Alternative is intended to prohibit the use of midwater trawls in habitat closed areas that were established in recent amendments to NEFMC fishery management plans for Northeast Multispecies (Amendment 13); Atlantic Sea Scallops (Amendment 10), and Monkfish (Amendment 2) to minimize the adverse impacts of mobile, bottom-tending fishing gears (bottom trawls and dredges) on EFH.
- 4. <u>Prohibit The Use Of Midwater Trawls In The Gulf of Maine Alternative</u> which would prohibit the use of midwater trawls in Herring Management Area 1 in the Gulf of Maine on a year-round basis.

THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE As required by the CEQ NEPA implementing regulations, NMFS shall discuss in this section of the decision "the alternative or alternatives which were considered to be environmentally preferable (40 CFR Part 1505.2(b))" The environmentally preferred alternative is the alternative which causes the least damage to the biological and physical environment, and which best protects, preserves, and enhances historic, cultural and natural resources. The No Action Alternative has been identified as the environmentally preferred alternative as it results in no additional adverse impacts on the herring resource, has no additional adverse impacts to essential fish habitat, has no adverse impacts to protected resources, and has no adverse impacts on the human environment. This is also the preferred alternative for adoption.

## IV. NMFS DECISION AND FACTORS CONSIDERED IN THE DECISION

In addition to identifying the environmentally-preferred alternative, CEQ NEPA implementing regulations require agencies to state what decision was made, discuss how the decision was affected by the preferences among the alternatives based on the relevant factors including economic and technical considerations and agency statutory missions, and whether all practical

means to avoid or minimize environmental harm from the alternative selected has been adopted, and if not why they were not (40 CFR 1502.2(a)-(c).

Accordingly, NMFS has decided to adopt the No Action Alternative. NMFS arrived at this decision after taking several technical, economic, and agency statutory mission considerations into account. The following information illustrates how the various considerations denoted above were considered in the determination of adopting the No Action Alternative. NMFS balanced national policy considerations (e.g. consistency with the Magnuson-Stevens Fishery Conservation and Management Act (MSA)) in making its decision to adopt the No Action Alternative (40 CFR Part 1505.2(b)).

The fishing gear effects evaluation conducted in the FEIS indicates that mid-water trawls and purse seines do occasionally contact the seafloor and may impact benthic habitats utilized by a number of federally-managed species, including EFH for Atlantic herring eggs. After reviewing all the available information, the NMFS concludes that any potential adverse impacts are minimal and/or temporary and do not require measures to minimize the impacts pursuant to MSA and the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)). Therefore, since no management measures are needed to minimize the impacts of the Atlantic herring fishery on EFH the No Action Alternative has been adopted.

The following information supports this conclusion.

- Bottom contact by mid-water trawls occurs infrequently and is usually caused by "tickler" chains that hang down in short loops from the footrope, the footrope itself, or the two weights that are attached to the wire trawl warps that extend from the bottom of the net to the doors.
   The trawl doors do not touch bottom.
- The lead lines of purse seines may occasionally and briefly contact the bottom when the net is first set, but not once the net is "pursed." This impact is minimal and temporary.
- Mid-water trawls are not designed to fish in contact with the bottom and are easily damaged
  if they hit an obstacle (rocks) or if the nylon netting in the belly drags over any kind of
  bottom substrate. Repairs are costly and thus a disincentive for fishers to allow bottom
  contact.
- Bottom contact, when it occurs, is much more likely to occur on flat sand or mud bottom, not on structurally complex and more sensitive hard bottom. Sand and mud bottom habitat is not considered to be vulnerable to the impacts of fishing gear.
- Bottom trawls and dredges are used much more intensively in the Northeast region than herring mid-water trawls and pair trawls. Overall, throughout the entire region, herring midwater trawls (single and pair trawls) only accounted for 1.1% of all days absent from port by mobile gear vessels during 1997-2002 compared with bottom trawls and dredges which were the remaining 98 % of the effort. Since bottom contact from mid water trawls is occasional and limited to sandy and muddy substrates it accounts for much less than 1.1% of the total fishing effort.

• Bycatch of fully demersal fish species (as a potential indicator of bottom contact) in 110 trips made by mid-water trawlers and 31 trips made by purse seiners during 1994-2003 was insignificant, accounting for .0003% of the mid-water trawl catch and .0001% of the purse seine catch.

## Conclusions from above:

- Potential adverse impacts to EFH from occasional midwater trawl contact with sandy and muddy bottom habitats is not more than minimal and are temporary in nature as defined in the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)).
- Impacts that are not more than minimal and are temporary in nature are not required to be minimized pursuant to MSA and the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)).
- Alternative 2, Alternative 3 and Alternative 4 were not practicable (EFH Final Rule 50 CFR Part 600.815(a)(2)(iii)) in terms of the costs and benefits to EFH, associated fisheries and the nation consistent with MSA National Standard 7. These alternatives provide no benefit to the herring resource, EFH, or protected resources but will incur costs on the human environment ranging from low to high.
- The No Action Alternative is practicable. The cost/ benefits of the alternative on the herring resource are neutral, are neutral on EFH, are neutral on protected species, and are neutral on the human environment.

Other conclusions cited in the FEIS that support the selection of the No Action alternative and the conclusion that any adverse impacts are not more than minimal and are temporary in nature are summarized below.

Herring are extremely sensitive to noise and schools are known to disperse when approached by vessels or when disturbed by mid-water nets or purse seines, but the effect is known to be temporary: Schools of herring that are dispersed by vessels or mid-water trawls re-form quickly after passage of the boat or the net, within a matter of minutes. This may adversely affect the pelagic habitat for juvenile and adult herring, but the effects are minimal and temporary in nature and do not need to be minimized pursuant to the MSA and the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)).

An additional potential impact of mid-water trawls and purse seines on Atlantic herring EFH is on the habitat for herring eggs. In order for herring egg EFH to be more than minimally impacted by these gears, the gears would have to 1) contact bottom habitats that are used by herring for spawning, and 2) disturb the bottom in a way that reduces its functional value as an egg habitat. According to information obtained from fishermen, bottom contact occasionally occurs on smooth sand or mud bottom when herring are very close to the bottom and can not be caught unless the net is towed just above or on the bottom. However, contact with hard bottom is avoided because the gear is not designed to withstand contact with rocky substrates. This conclusion is corroborated by the available evidence (see above).

Because any bottom contact by mid-water trawls used in the Northeast U.S. Atlantic herring fishery is most likely to be limited to mud and sand substrates, and because herring do not deposit eggs on mud, habitats utilized as herring egg EFH that are most likely to be vulnerable to impacts from mid-water trawls would be in sandy bottom areas. However, herring mid-water trawls only contact the bottom occasionally. Furthermore, many sand bottom habitats where herring spawn (*e.g.*, on Georges Bank) are located in fairly shallow depths that are subject to scouring action by bottom currents. Herring spawn, in fact, in locations characterized by strong bottom currents. Additional disturbance by occasional bottom contact would have a negligible incremental effect in those areas. Therefore, if there are any adverse impacts of mid-water trawls in sandy bottom habitats, they are not expected to be more than minimal or temporary in nature and do not need to be minimized pursuant to the MSA and the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)).

Bottom contact by mid-water trawls may also occasionally occur in gravel bottom spawning habitats on Georges Bank that are free of rocks. However, there is no evidence that the effects of dragging an object such as a heavy weight or a length of chain over a sand, gravel, or rocky bottom would reduce the functional value of the substrate as a habitat for herring eggs. There is no evidence that herring are less likely to deposit their eggs on bottom habitats composed of gravel, sand, cobble, and shell fragments that have been disturbed by fishing gear than on undisturbed substrate, or that eggs deposited on disturbed substrates would have a reduced survival rate. The only exception to this would be benthic macrophytes or emergent epifauna – attached algae, bryozoans, etc. – that herring eggs also stick to and which are easily damaged or removed from the bottom by bottom-tending fishing gear. However, survey data indicates that herring eggs in the Gulf of Maine and on Georges Bank are usually deposited on the seafloor, not on macrophytes.

## V. COMMENTS RECEIVED FROM THE PUBLIC ON THE FEIS

NMFS received one letter of comment on the FEIS, sent by the environmental organization Oceana and attached to this ROD. The comments within this letter were, in general, repeats of comments the organization has already made on this action. NMFS has responded to these earlier comments in the FEIS. A summary of issues is provided here:

Comments received on the DEIS and FEIS have questioned the agency's use of bycatch data (the extremely low proportion of demersal species caught in mid-water net tows) to support the conclusions cited above. The commentor cites the occurrence of haddock in some 2003-2004 herring mid-water trawl tows – data that were collected and compiled after the DEIS was completed – as evidence that these nets frequently contact the bottom and adversely impact benthic habitats to the same degree as bottom trawls. As described in the responses to these comments (Appendix II to the FEIS), we note that even demersal species like haddock sometimes leave the bottom and can be caught in mid-water nets that are not in contact with the bottom. Therefore, the NMFS does not agree with these comments and does not find reason to change its conclusions that bottom contact occurs infrequently and that habitat impacts caused by such contact fail to exceed the "more than minimal and not temporary" threshold required by the EFH Final Rule (50 CFR Part 600.815(a)(2)(ii)) to trigger the need to implement management actions.

In addition the commentor questions the use of best available science in the FEIS and provides a position paper by a group of fishing gear technologists on Haddock Bycatch in the herring trawl fishery dated January 13, 2005 as proof of such and to argue that the conclusions in the FEIS are invalid. The meeting summary dated January 13, 2005 was not available for use in the FEIS because it was produced on the same date that the FEIS was submitted for publication. Therefore, the best available scientific information was used in developing the FEIS and was considered by NMFS in its decision. In addition, NMFS' review of the information contained in the January 13, 2005 meeting summary does not provide any habitat information that would cause NMFS to change its conclusions in the FEIS or its decision contained in this ROD. Information in the summary was related to midwater trawl performance and reducing bycatch of haddock.

## VI. MITIGATION MEASURES AND MONITORING

As mentioned previously, CEQ NEPA regulations require that agencies identify in the ROD whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why. The regulations further state that a monitoring and enforcement program shall be adopted and summarized where applicable for any mitiagtion. Mitigation measures are the practical means to avoid, minimize and reduce impacts, and compensate for unavoidable impacts.

The FEIS concludes that there is no environmental harm caused by selection of the No Action Alternative. Therefore, mitigation measures are not required and were not developed as part of the FEIS.

## VII. SUMMARY FINDING

Through the FEIS and documented in this ROD, NMFS has analyzed management alternatives to minimize potential adverse impacts to EFH that are more than minimal and temporary in nature. The analyses considered impacts to the fishery resource, impacts to EFH, impacts to protected resources, as well as socio-economic impacts. In addition, NMFS also considered public and agency comments received during the entire EIS review periods. In balancing the analysis and public interest, NMFS has decided to adopt the No Action Alternative. NMFS also concludes that all practical means to avoid, minimize, or compensate for environmental harm from the proposed action have been adopted. Selection of the No Action Alternative requires no further regulatory action.

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