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#### 12.0 ENVIRONMENTAL ASSESSMENT

### 12.1 PURPOSE AND NEED FOR THE ACTION

The purpose and need for this amendment are discussed in Section 2.2 of the EFH amendment document.

## 12.2 DESCRIPTION OF THE PROPOSED AND ALTERNATIVE ACTIONS

#### 12.2.1 Guidance from the Interim Final Rule

The guidance from the Interim Final Rule regarding the description and identification of EFH is summarized in Section 3.2 of the EFH amendment document.

#### 12.2.2 Specification of EFH Information Levels for New England FMP Species

The explanation and specification of information levels to be used for designating EFH in the New England region for Council-managed species is provided in Section 3.2 of the EFH amendment document.

# 12.2.3 Description and Identification of EFH

The methodology used to develop the alternatives considered by the Council for the EFH designations is explained in Section 3.2 of the EFH amendment document. The maps that represent the Council's preferred alternatives, the EFH designation maps, are provided in Section 3.4 of the EFH amendment document.

The following maps represent the suite of alternatives considered by the Council in developing its EFH designations for each of the eighteen Council-managed species. For each life history stage where information existed to develop a set of alternatives, there is a single map for each of the 50%, 75%, 90%, and 100% alternatives. These four maps represent the range of alternatives considered by the Council and presented to the public for review. In some cases, there was not enough information available to develop a distinct set of alternatives for each life history stage of the species (e.g., monkfish eggs are not collected by the NMFS MARMAP survey, so there were no data on the distribution of monkfish eggs from which to develop the standard set of alternatives). The Council used a proxy (e.g., the distribution of adults) and based its EFH designation on the set of alternatives available for the proxy life history stage (i.e., the combination of the distributions of monkfish adults and larvae were used as a proxy for the distribution of monkfish eggs). In these cases, there are no alternatives maps for the life history stage for which there was no information. The EFH designation explains what information was available, and this section includes the alternatives maps for the life history stages used as a proxy.

# **EFH Designation Alternatives Atlantic cod (***Gadus morhua***) Eggs**



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of Atlantic cod eggs.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of Atlantic cod eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of Atlantic cod eggs.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic cod eggs.

# EFH Designation Alternatives Atlantic cod (*Gadus morhua*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of Atlantic cod larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of Atlantic cod larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of Atlantic cod larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic cod larvae.

**EFH Designation Alternatives** Atlantic cod (*Gadus morhua*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of Atlantic cod juveniles.



EFH alternative 2 (75%): This EFH alternative represents 38% of the observed range of Atlantic cod juveniles.



EFH alternative 3 (90%): This EFH alternative represents 60% of the observed range of Atlantic cod juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic cod juveniles.

EFH Designation Alternatives Atlantic cod (*Gadus morhua*) Adults



EFH alternative 1(50%): This EFH alternative represents 22% of the observed range of Atlantic cod adults.



EFH alternative 2 (75%): This EFH alternative represents 41% of the observed range of Atlantic cod adults.



EFH alternative 3 (90%): This EFH alternative represents 59% of the observed range of Atlantic cod adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic cod adults.

EFH Designation Alternatives Haddock (*Melanogrammus aeglefinus*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of haddock eggs.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of haddock eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of haddock eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of haddock eggs.

EFH Designation Alternatives Haddock (*Melanogrammus aeglefinus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of haddock larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of haddock larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of haddock larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of haddock larvae.

**EFH Designation Alternatives** Haddock (*Melanogrammus aeglefinus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 14% of the observed range of haddock juveniles.



EFH alternative 2 (75%): This EFH alternative represents 32% of the observed range of haddock juveniles.



EFH alternative 3 (90%): This EFH alternative represents 54% of the observed range of haddock juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of haddock juveniles.

**EFH Designation Alternatives** Haddock (*Melanogrammus aeglefinus*) Adults



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of haddock adults.



EFH alternative 2 (75%): This EFH alternative represents 39% of the observed range of haddock adults.



EFH alternative 3 (90%): This EFH alternative represents 61% of the observed range of haddock adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of haddock adults.

EFH Designation Alternatives Atlantic herring (*Clupea harengus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of herring larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of herring larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of herring larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of herring larvae.

# **EFH Designation Alternatives** Atlantic herring (*Clupea harengus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of herring juveniles.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of herring juveniles.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of herring juveniles.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of herring juveniles.

# **EFH Designation Alternatives** Atlantic herring (*Clupea harengus*) Adults



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of Atlantic herring adults.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of Atlantic herring adults.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of Atlantic herring adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic herring adults.

EFH Designation Alternatives Monkfish (*Lophius americanus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of monkfish larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of monkfish larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of monkfish larvae.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of monkfish larvae.

**EFH Designation Alternatives** Monkfish (*Lophius americanus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 20% of the observed range of monkfish juveniles.



EFH alternative 2 (75%): This EFH alternative represents 41% of the observed range of monkfish juveniles.



EFH alternative 3 (90%): This EFH alternative represents 63% of the observed range of monkfish juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of monkfish juveniles.

**EFH Designation Alternatives Monkfish (***Lophius americanus***) Adults** 



EFH alternative 1 (50%): This EFH alternative represents 22% of the observed range of monkfish adults.



EFH alternative 2 (75%): This EFH alternative represents 42% of the observed range of monkfish adults.



EFH alternative 3 (90%): This EFH alternative represents 63% of the observed range of monkfish adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of monkfish adults.

**EFH Designation Alternatives** Ocean pout (*Macrozoarces americanus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 17% of the observed range of ocean pout juveniles.



EFH alternative 2 (75%): This EFH alternative represents 38% of the observed range of ocean pout juveniles.



EFH alternative 3 (90%): This EFH alternative represents 62% of the observed range of ocean pout juveniles.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of ocean pout juveniles.

**EFH Designation Alternatives Ocean pout (***Macrozoarces americanus***) Adults** 



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of ocean pout adults.



EFH alternative 2 (75%): This EFH alternative represents 39% of the observed range of ocean pout adults.



EFH alternative 3 (90%): This EFH alternative represents 61% of the observed range of ocean pout adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of ocean pout adults.

**EFH Designation Alternatives American plaice** (*Hippoglossoides platessoides*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of American plaice eggs



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of American plaice eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of American plaice eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of American plaice eggs.

**EFH Designation Alternatives American plaice** (*Hippoglossoides platessoides*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of American plaice larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of American plaice larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of American plaice larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of American plaice larvae.

**EFH Designation Alternatives American plaice** (*Hippoglossoides platessoides*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 17% of the observed range of American plaice juveniles



EFH alternative 2 (75%): This EFH alternative represents 32% of the observed range of American plaice juveniles.



EFH alternative 3 (90%): This EFH alternative represents 50% of the observed range of American plaice juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of American plaice juveniles.

**EFH Designation Alternatives American plaice** (*Hippoglossoides platessoides*) Adults



EFH alternative 1 (50%): This EFH alternative represents 21% of the observed range of American plaice adults



EFH alternative 2 (75%): This EFH alternative represents 36% of the observed range of American plaice adults.



EFH alternative 3 (90%): This EFH alternative represents 53% of the observed range of American plaice adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of American plaice adults.

# EFH Designation Alternatives Pollock (*Pollachius virens*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of pollock eggs



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of pollock eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of pollock eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of pollock eggs.

## EFH Designation Alternatives Pollock (*Pollachius virens*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of pollock larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of pollock larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of pollock larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of pollock larvae.

**EFH Designation Alternatives Pollock (***Pollachius virens***) Juveniles** 



EFH alternative 1 (50%): This EFH alternative represents 20% of the observed range of pollock juveniles



EFH alternative 2 (75%): This EFH alternative represents 40% of the observed range of pollock juveniles.



EFH alternative 3 (90%): This EFH alternative represents 62% of the observed range of pollock juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of pollock juveniles.

## **EFH Designation Alternatives Pollock (***Pollachius virens***) Adults**



EFH alternative 1 (50%): This EFH alternative represents 21% of the observed range of pollock adults



EFH alternative 2 (75%): This EFH alternative represents 40% of the observed range of pollock adults.



EFH alternative 3 (90%): This EFH alternative represents 61% of the observed range of pollock adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of pollock adults.

# EFH Designation Alternatives Red hake (*Urophycis chuss*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of red hake eggs.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of red hake eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of red hake eggs.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of red hake eggs.

# EFH Designation Alternatives Red hake (*Urophycis chuss*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of red hake larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of red hake larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of red hake larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of red hake larvae.

# EFH Designation Alternatives Red hake (*Urophycis chuss*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 24% of the observed range of red hake juveniles.



EFH alternative 2 (75%): This EFH alternative represents 46% of the observed range of red hake juveniles.



EFH alternative 3 (90%): This EFH alternative represents 67% of the observed range of red hake juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of red hake juveniles.

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# **EFH Designation Alternatives Red hake** (*Urophycis chuss*) Adults



EFH alternative 1 (50%): This EFH alternative represents 21% of the observed range of red hake adults.



EFH alternative 2 (75%): This EFH alternative represents 39% of the observed range of red hake adults.



EFH alternative 3 (90%): This EFH alternative represents 58% of the observed range of red hake adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of red hake adults.

# EFH Designation Alternatives Redfish (*Sebastes spp.*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of redfish larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of redfish larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of redfish larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of redfish larvae.

## **EFH Designation Alternatives Redfish (Sebastes spp.) Juveniles**



EFH alternative 1 (50%): This EFH alternative represents 21% of the observed range of redfish juveniles



EFH alternative 2 (75%): This EFH alternative represents 40% of the observed range of redfish juveniles.



EFH alternative 3 (90%): This EFH alternative represents 61% of the observed range of redfish juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of redfish juveniles.

#### **EFH Designation Alternatives Redfish (Sebastes spp.) Adults**



EFH alternative 1 (50%): This EFH alternative represents 23% of the observed range of redfish adults



EFH alternative 2 (75%): This EFH alternative represents 42% of the observed range of redfish adults.



EFH alternative 3 (90%): This EFH alternative represents 59% of the observed range of redfish adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of redfish adults.

**EFH Designation Alternatives** Atlantic salmon (*Salmo salar*) All life stages



EFH alternative 1 (Unique): This EFH alternative represents those seven rivers supporting unique stocks of Atlantic salmon that are included in a distinct population segment (DPS).



EFH alternative 2 (Candidate): This EFH alternative represents the seven rivers from the previous alternative plus four rivers currently being considered for possible inclusion in a DPS.



EFH alternative 3 (Restoration): This EFH alternative represents the eleven rivers from the previous alternatives and those with active Atlantic salmon restoration programs [21 rivers].



EFH alternative 4 (Present): This EFH alternative represents all rivers where Atlantic salmon are currently present [26 rivers].

# **EFH Designation Alternatives** Atlantic salmon (*Salmo salar*) All life stages



EFH alternative 5 (All): This EFH alternative represents all rivers that have supported Atlantic salmon, including those from which Atlantic salmon have been extirpated [43 rivers].

**EFH Designation Alternatives** Atlantic sea scallops (*Placopecten magellanicus*) All life stages



EFH alternative 1 (50%): This EFH alternative represents 30% of the observed range of sea scallops



EFH alternative 2 (75%): This EFH alternative represents 52% of the observed range of sea scallops.



EFH alternative 3 (90%): This EFH alternative represents 70% of the observed range of sea scallops.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of sea scallops.
EFH Designation Alternatives White hake (*Urophycis tenuis*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of white hake juveniles



EFH alternative 2 (75%): This EFH alternative represents 39% of the observed range of white hake juveniles.



EFH alternative 3 (90%): This EFH alternative represents 60% of the observed range of white hake juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of white hake juveniles.

**EFH Designation Alternatives** White hake (*Urophycis tenuis*) Adults



EFH alternative 1 (50%): This EFH alternative represents 20% of the observed range of white hake adults



EFH alternative 2 (75%): This EFH alternative represents 36% of the observed range of white hake adults.



EFH alternative 3 (90%): This EFH alternative represents 53% of the observed range of white hake adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of white hake adults.

#### **EFH Designation Alternatives** Whiting (*Merluccius bilinearis*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of whiting eggs



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of whiting eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of whiting eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of whiting eggs.

#### **EFH Designation Alternatives** Whiting (*Merluccius bilinearis*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of whiting larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of whiting larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of whiting larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of whiting larvae.

### **EFH Designation Alternatives** Whiting (*Merluccius bilinearis*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 26% of the observed range of whiting juveniles



EFH alternative 2 (75%): This EFH alternative represents 48% of the observed range of whiting juveniles.



EFH alternative 3 (90%): This EFH alternative represents 69% of the observed range of whiting juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of whiting juveniles.

### **EFH Designation Alternatives** Whiting (*Merluccius bilinearis*) Adults



EFH alternative 1 (50%): This EFH alternative represents 26% of the observed range of whiting adults



EFH alternative 2 (75%): This EFH alternative represents 45% of the observed range of whiting adults.



EFH alternative 3 (90%): This EFH alternative represents 63% of the observed range of whiting adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of whiting adults.

**EFH Designation Alternatives** Windowpane flounder (*Scophthalmus aquosus*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of windowpane flounder eggs



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of windowpane flounder eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of windowpane flounder eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of windowpane flounder eggs.

**EFH Designation Alternatives** Windowpane flounder (*Scophthalmus aquosus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of windowpane flounder larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of windowpane flounder larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of windowpane flounder larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of windowpane flounder larvae.

EFH Designation Alternatives Windowpane flounder (*Scophthalmus aquosus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 23% of the observed range of windowpane flounder juveniles



EFH alternative 2 (75%): This EFH alternative represents 41% of the observed range of windowpane flounder juveniles.



EFH alternative 3 (90%): This EFH alternative represents 60% of the observed range of windowpane flounder juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of windowpane flounder juveniles.

**EFH Designation Alternatives** Windowpane flounder (*Scophthalmus aquosus*) Adults



EFH alternative 1 (50%): This EFH alternative represents 24% of the observed range of windowpane flounder adults



EFH alternative 2 (75%): This EFH alternative represents 42% of the observed range of windowpane flounder adults.



EFH alternative 3 (90%): This EFH alternative represents 60% of the observed range of windowpane flounder adults.



**EFH Designation Alternatives** Winter flounder (*Pleuronectes americanus*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of winter flounder eggs



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of winter flounder eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of winter flounder eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of winter flounder eggs.

**EFH Designation Alternatives** Winter flounder (*Pleuronectes americanus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of winter flounder larvae



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of winter flounder larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of winter flounder larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of winter flounder larvae.

**EFH Designation Alternatives** Winter flounder (*Pleuronectes americanus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 17% of the observed range of winter flounder juveniles



EFH alternative 2 (75%): This EFH alternative represents 34% of the observed range of winter flounder juveniles.



EFH alternative 3 (90%): This EFH alternative represents 54% of the observed range of winter flounder juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of winter flounder juveniles.

**EFH Designation Alternatives** Winter flounder (*Pleuronectes americanus*) Adults



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of winter flounder adults



EFH alternative 2 (75%): This EFH alternative represents 36% of the observed range of winter flounder adults.



EFH alternative 3 (90%): This EFH alternative represents 54% of the observed range of winter flounder adults.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of winter flounder adults.

**EFH Designation Alternatives** Witch flounder (*Glyptocephalus cynoglossus*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of witch flounder eggs.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of witch flounder eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of witch flounder eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of witch flounder eggs.

**EFH Designation Alternatives** Witch flounder (*Glyptocephalus cynoglossus*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of witch flounder larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of witch flounder larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of witch flounder larvae.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of witch flounder larvae.

**EFH Designation Alternatives** Witch flounder (*Glyptocephalus cynoglossus*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 16% of the observed range of witch flounder juveniles.



EFH alternative 2 (75%): This EFH alternative represents 34% of the observed range of witch flounder juveniles.



EFH alternative 3 (90%): This EFH alternative represents 58% of the observed range of witch flounder juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of witch flounder juveniles.

**EFH Designation Alternatives** Witch flounder (*Glyptocephalus cynoglossus*) Adults



EFH alternative 1 (50%): This EFH alternative represents 16% of the observed range of witch flounder adults.



EFH alternative 2 (75%): This EFH alternative represents 33% of the observed range of witch flounder adults.



EFH alternative 3 (90%): This EFH alternative represents 51% of the observed range of witch flounder adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of witch flounder adults.

**EFH Designation Alternatives Yellowtail flounder** (*Pleuronectes ferruginea*) Eggs



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of yellowtail flounder eggs.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of yellowtail flounder eggs.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of yellowtail flounder eggs.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of yellowtail flounder eggs.

EFH Designation Alternatives Yellowtail flounder (*Pleuronectes ferruginea*) Larvae



EFH alternative 1 (50%): This EFH alternative represents 50% of the observed range of yellowtail flounder larvae.



EFH alternative 2 (75%): This EFH alternative represents 75% of the observed range of yellowtail flounder larvae.



EFH alternative 3 (90%): This EFH alternative represents 90% of the observed range of yellowtail flounder larvae.

EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of yellowtail flounder larvae.

**EFH Designation Alternatives** Yellowtail flounder (*Pleuronectes ferruginea*) Juveniles



EFH alternative 1 (50%): This EFH alternative represents 19% of the observed range of yellowtail flounder juveniles.



EFH alternative 2 (75%): This EFH alternative represents 37% of the observed range of yellowtail flounder juveniles.



EFH alternative 3 (90%): This EFH alternative represents 56% of the observed range of yellowtail flounder juveniles.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of yellowtail flounder juveniles.

**EFH Designation Alternatives Yellowtail flounder** (*Pleuronectes ferruginea*) Adults



EFH alternative 1 (50%): This EFH alternative represents 22% of the observed range of yellowtail flounder adults.



EFH alternative 2 (75%): This EFH alternative represents 38% of the observed range of yellowtail flounder adults.



EFH alternative 3 (90%): This EFH alternative represents 57% of the observed range of yellowtail flounder adults.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of yellowtail flounder adults.

**EFH Designation Alternatives** Atlantic halibut (*Hippoglossus hippoglossus*) All life stages



EFH alternative 1 (50%): This EFH alternative represents 15% of the observed range of Atlantic halibut



EFH alternative 2 (75%): This EFH alternative represents 35% of the observed range of Atlantic halibut.



EFH alternative 3 (90%): This EFH alternative represents 60% of the observed range of Atlantic halibut.



EFH alternative 4 (100%): This EFH alternative represents 100% of the observed range of Atlantic halibut.

## 12.2.4 Information on Proposed Management Measures

The new management action associated with this amendment to the Council's FMPs designates the EFH and HAPC for all Council-managed species. The proposed management measure directed at protecting the juvenile Atlantic cod HAPC is limited to maintaining the current restrictions that already exist within that area, so this measure does not impose any new management action or restrictions.

An overview of existing and proposed management measures that provide habitat conservation benefit to the areas designated EFH by the Council is provided in Sections 4.10 and 4.11 of the EFH amendment document.

## 12.2.5 Other Options Considered

A discussion of the alternatives considered by the Council, including the status quo alternative, is included in Section 3.2.3 of the EFH amendment document. Maps of the non-preferred alternatives are provided in Section 12.3.3 of this document.

To protect the juvenile Atlantic cod HAPC from the most significant potential adverse impacts from fishing-related activities, the Council considered the following range of alternative measures:

- maintain the current Closed Area II restrictions, pursuant to the provisions of 50 CFR 648.81(b.), for the designated habitat area of particular concern for habitat protection reasons; or,
- close this area to all types of fishing.

The Council considered the range of options in light of the considerations summarized in Section 3.3.1 of the EFH amendment document and, after reviewing public comments and suggestions, determined that maintaining the current closure restrictions is the most appropriate measure to ensure adequate protection of this area. The area is most vulnerable to bottom-tending mobile fishing gear, and these gear types are currently prohibited in the area, as are any other gear types with the potential to catch groundfish. Extending the closure restrictions to preclude all fishing activity would not be warranted, as gear types such as midwater trawls, pelagic gillnets, and pelagic longlines have negligible, if any impact on benthic habitats. The only gear type considered to have the potential to impact benthic habitat is the lobster pot, and lobster pots, at least in moderate numbers, are believed to have minimal impact on the bottom.

## **12.3 ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES**

An environmental assessment (EA) is required by the National Environmental Policy Act of 1969 (NEPA) to determine whether the action considered will result in significant impact on the human environment. If the action is determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact (FONSI) would be the final environmental documents required by NEPA. An

environmental impact statement (EIS) must be prepared for major federal actions significantly affecting the human environment.

An EA must include a brief discussion of the need for the proposal, the alternatives considered, the environmental impacts of the proposed action and the alternatives, and a list of document preparers. The purpose of the proposal is discussed in Section 2.2 of the EFH amendment document, the alternatives are provided in Section 12.3.3 and the list of preparers are provided in Section 12.8 of this document. This section contains the discussion of the environmental impacts of the alternatives including impacts on threatened and endangered species and marine mammals.

## 12.3.1 Environmental Impacts of the Alternatives to Designate EFH

The environmental impacts generally associated with fishery management actions are effects resulting from (1) harvest of fish stocks which may result in changes in food availability to predators and scavengers, changes in the population structure of target fish stocks, and changes in the marine ecosystem community structure; (2) changes in the physical and biological structure of the marine environment as a result of fishing practices, e.g., effects of gear use and fish processing discards; and, (3) entanglement / entrapment of non-target organisms in active or inactive fishing gear.

## Physical Environment

Because of the large variability in the fish species managed under the Magnuson-Stevens Act, the areas identified as EFH will encompass a wide range of aquatic habitats. For example, streams and rivers supporting Atlantic salmon, marine and estuarine habitats, such as seagrass beds, coastal wetlands, submerged aquatic vegetation, cobble with attached epifauna, mud and clay burrows, and oceanic banks and continental shelf or slope areas extending to the 200-mile EEZ, all have the potential to be designated as EFH for one or more fishery species. Geographically, EFH is being designated in all states with a marine coastline. Overall, the environment directly affected by the plan amendment is likely to be primarily marine and estuarine habitat, except for Atlantic salmon where most of the EFH is in freshwater streams and rivers in coastal states.

The affected environment will be a subset of the habitat currently or historically used by fish managed under the Magnuson-Stevens Act. Marine, estuarine, and freshwater environments in coastal states are most likely to be affected. Fish populations managed under the Magnuson-Stevens Act will be affected when EFH receives increased protection or is restored.

In the case of riverine habitat, which is particularly important to Atlantic salmon, habitat loss has resulted from loss of fish access, water pollution, inadequate flow, and physical destruction of habitat. Activities determined to have an adverse impact on EFH may be redirected or concentrated in other areas such as uplands or aquatic areas not identified as EFH.

#### Effects on Fish Habitat

The goal of the EFH amendment is to improve the conservation and management of EFH by providing information and conservation recommendations to federal and state agencies and other entities whose actions may adversely affect EFH. The achievement of this goal depends on individual decisions made by the Council and federal and state agencies. Therefore, the consequences of this proposal can only be addressed in a general sense. NEPA documentation prepared for individual proposed actions by other than the Council will fully address the environmental consequences of site specific activities. Council-proposed actions, taking the form of framework adjustments or future FMP amendments, will address the specific impacts of the proposed actions.

The EFH designation alternatives selected by the Council include the most appropriate amount of habitat area, given the particular conditions of each species and the limitations associated with the data and information available to the Council. Selecting more area to be included in the EFH designations could be considered as risk-averse, or precautionary, but would trigger more consultations than the Council deems necessary. Selecting less area to be included in the EFH designations would trigger fewer consultations and place less burden on federal agencies to comply with the Magnuson-Stevens Act, but would not provide the prudent amount of habitat protection given the level of information available. The only foreseeable impacts to fish habitat from the implementation of the Council's EFH designations and the conservation and enhancement recommendations provided in the amendment would be improved protection, restoring both the quantity and quality of the region's most valuable habitats.

## Effects on Fish Populations

The EFH requirements were included in the Magnuson-Stevens Act because scientific evidence indicated that habitat loss or degradation has compounded, and in some cases magnified, the effects of increased fishing pressures. Protection from further adverse impacts and the restoration of degraded EFH, where feasible, should reduce some of the stress on populations, and fishery stocks should stabilize or regain some lost productivity. Evidence from boreal, temperate, and tropical regions of the world support the theory that if habitat degradation is halted or minimized, and biological integrity is restored, associated fish populations will increase. Additional benefits that would be expected from adequate levels of habitat protection include: the restoration of the population age (or size) structure, conservation of genetic diversity in the population, development or maintenance of greater diversity in trophic structure and greater assurance of the availability of alternate trophic pathways, increased resilience or the population to withstand both natural and anthropogenic stresses, and greater stability in both the populations and the fishery catch. All of the options and alternatives to the status quo considered by the Council would be expected to reduce some of the stress on populations, and fishery stocks should benefit in terms of long-term productivity.

#### Effects on Fisheries

Detrimental effects of any future EFH-related regulations are expected to be temporary in

nature, with any short-term losses more than balanced out by long term gains in the fishery. The long-term expectation of the Magnuson-Stevens Act's EFH mandate is that declining trends in fish stocks can be halted or reversed by minimizing adverse impacts to EFH, and by restoring lost habitats or access to habitats, where feasible, along with other management measures. Protecting the quality and quantity of EFH should increase the survival potential of Council-managed fishery species, and increase biological productivity of both the ecosystem and the stocks of managed species dependent on the components of that ecosystem. Increases in stock abundance and fish sizes should result in increased economic return and stabilization of interannual variations in catch, as well as provide increased resistance to episodic disturbance events.

The most likely short-term consequence to the fishing participants, both commercial and recreational, of any future action taken by the Council to minimize the impacts to EFH, would be the relocation of fishing effort, if scientific evidence suggests that particular fishing methods or gear types are adversely affecting the quantity or quality of habitat necessary to one or more life stages of a Council-managed species. Restrictions to minimize these adverse effects could be either seasonal, annual, or long-term. For the duration of the restriction, fishermen who have traditionally used that method or area may need to increase their search or travel distance to find other suitable fishing grounds, or they may need to invest in gears more appropriate for use in the identified EFH. There may be individual fishing participants for whom the net effect of reducing adverse impacts to EFH is negative, either because no relocation of effort is possible or because the cost of acquiring new gear is prohibitive, which could cause the participant to withdraw from the fishery. Overall, short-term economic losses should be compensated by future increases in catch levels and increased stability in the fishery.

None of the provisions in the current EFH amendment are expected to incur any cost to the fishing industry. The restrictions on fishing in the area designated as an HAPC for juvenile Atlantic cod have been in place for several years, and no current fishing effort will be restricted from this area. All of the options and alternatives to the status quo are expected to provide long-term gains for New England fisheries.

#### Other Environmental Effects

The implementation of this amendment should not produce any unavoidable adverse environmental impacts. The provisions of the amendment are intended to protect the environment by controlling adverse physical, biological, and chemical impacts on the habitat of Council-managed fishery species. There may be some changes in the patterns of resource use in order to avoid activities that degrade coastal waters and habitats. These changes, such as directing dredged material disposal away from EFH, would not result in any unavoidable adverse environmental impacts.

The overall purpose of this amendment is to conserve, protect, and restore coastal waters, and thus to enhance the long-term health of Council-managed species. This amendment will not result in any short-term uses of the environment that may reduce long-term productivity. Short-term use of the environment may be modified in response to the implementation of specific EFH conservation recommendations or fishery management

measures. This may result in short-term costs to the users, but will result in long-term benefits to the economy and environment through the conservation, preservation, and restoration of living marine resources and their habitats.

#### Consequences of the Alternatives

The consequences of the status quo alternatives for each species would be that EFH would not be designated and a program for the conservation and management of EFH in New England would not be implemented. Federal and state agency decision-makers would not be able to avail themselves of information on the importance of certain habitats to marine fisheries, and their decisions regarding actions that could adversely affect EFH might not give adequate consideration to the need for conservation of particular habitats. Fish populations may remain threatened by habitat loss, and additional fish populations would likely become threatened as habitat loss continued. Commercial and recreational fishermen dependent on declining fisheries would continue to experience lost revenues and increased uncertainty. All of the options and alternatives to the status quo would be expected to benefit Council-managed fishery species populations, and provide for improved long-term productivity of the fisheries.

## **12.3.2** Environmental Impacts of the Proposed Management Measures

The new mandate to identify, conserve, and enhance EFH is regarded as an important tool for sustainable fisheries and healthy ecosystems. The cobble bottom area in the northern portion of Closed Area II has been designated a habitat area of particular concern due to the value-added benefits to the survival of post-settlement juvenile Atlantic cod derived from the habitat of this area. Maintaining the current closure restrictions in this area will ensure continued protection of this valuable habitat from any potential adverse impacts associated with fishing activity, especially from bottom-tending mobile fishing gear. This closure protects the fragile nature of this important habitat, and prevents the harvest or bycatch of this species during a critical phase of its life history.

## **12.3.3 Economic Impacts**

There are no economic impacts expected to result from the provisions of this amendment.

## 12.3.4 Social Impacts

There are no social impacts expected to result from the provisions of this amendment

## 12.3.5 Impacts on Marine Mammals, Endangered or Threatened Species

A description of potentially affected protected species (marine mammals, sea turtles and shortnose sturgeon), including those that are threatened and endangered or proposed to be listed as threatened or endangered under the Endangered Species Act (ESA), has been provided in Amendments 5 and 7 to the Northeast Multispecies FMP, in Amendment 4 to the Atlantic Sea Scallop FMP, the Atlantic Salmon FMP and the Monkfish and proposed Herring FMPs. The status of these marine mammal populations has been most recently

discussed in the publications entitled U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments. Initial assessments were presented in Blaylock, et al. (1995) and were updated in Waring, et al. (1997). The reports present information on stock definition and geographic range, population size and productivity rates, a description of current population trends, an estimate of the annual human-caused mortality and serious injury as well as other causes of stock declines or impediments to recovery, a description of the commercial fisheries that interact with these stocks and an estimate of Potential Biological Removals. The most recent information on sea turtle status is contained in the 1995 and 1997 status reviews of listed turtles prepared jointly by NMFS and the U.S. Fish and Wildlife Service.

Impacts of the existing management measures on endangered and protected species were discussed in the submission documents and in the formal consultations pursuant to Section 7(a)(2) of the ESA, as well as in the associated Biological Opinions issued for the FMP amendments listed above. The EFH Amendment, which contains descriptions of essential fish habitat for all Council-managed species, the identification of fishing threats and associated management measures, in addition to identification of non-fishing threats and the conservation and enhancement measures, does not affect the status quo with regard to fishing activities. Impacts of the measures, therefore, can at least be expected to remain stable. Accordingly, there is no jeopardy to the continued existence of threatened or endangered species.

## 12.4 FINDING OF NO SIGNIFICANT IMPACT

None of the alternatives or provisions of the EFH amendment are likely to significantly affect the quality of the human environment, and the preparation of an environmental impact statement for the proposed action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations. Furthermore, maintaining the current Closed Area II restrictions for the juvenile Atlantic cod HAPC is unlikely to significantly affect the quality of the human environment, and the preparation of an environmental impact statement for the proposed action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

Date

Assistant Administrator for Fisheries, NOAA

## **12.5 REFERENCES**

The references and literature cited in this document are provided in Section 11.0 of the EFH amendment document.

## **12.6 LIST OF PREPARERS**

#### 12.6.1 Members of the EFH Technical Team

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## 12.6.2 Other Contributors

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Ms. Ellie Dorsey, Conservation Law Foundation

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Dr. David Stevenson, Maine Department of Marine Resources

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Mr. Mark Monoco, NOAA / NOS / SEA Division

#### **13.0 APPLICABLE LAW**

#### 13.1 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

Amendment 9 to the Multispecies FMP, Amendment 7 to the Sea Scallop FMP, the Monkfish FMP, and the forthcoming Atlantic Herring FMP contain the Council's determination of consistency with the National Standards. This amendment does not change the rules promulgated under these FMPs and amendments; therefore, no further consideration is required.

## **13.2 NATIONAL ENVIRONMENTAL POLICY ACT**

A finding of no significant impact was determined for this proposed action; see Section 12.6 of this document.

## **13.3 REGULATORY IMPACT REVIEW**

This section provides information about the likely economic and socioeconomic impacts of the alternatives including identification of the individuals or groups that may be affected by the action, the nature of these impacts, quantification of the economic impacts if possible, and discussion of the tradeoffs between qualitative and quantitative costs and benefits.

The requirements for all regulatory actions specified in Executive Order 12866 are summarized in the following statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

This section also addresses the requirements of the E.O. 12866 and the Regulatory Flexibility Act (RFA) to provide adequate information to determine whether an action is "significant" under E.O. 12866 or will result in "significant" impacts on small entities under the RFA.

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be "significant". A "significant regulatory

action" is one that is likely to:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal government or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of the recipients thereof; or,
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

A regulatory program is "economically significant" if it is likely to result in the effects described above. The Regulatory Impact Review (RIR) is designed to provide information to determine whether the proposed regulation is likely to be "economically significant."

## **13.3.1 Economic Impact on Small Entities**

The objective of the RFA is to require consideration of the capacity of those affected by regulations to bear the direct and indirect costs of regulation. If an action will have a significant negative impact on a substantial number of small entities, an Initial Regulatory Flexibility Analysis (IRFA) must be prepared to identify the need for the action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of net benefits.

The Small Business Administration has defined all fish-harvesting or hatchery businesses that are independently owned and operated, not dominant in their field of operation, with annual receipts not in excess of \$3,000,000 as small businesses. In addition, seafood processors with 500 employees or fewer, wholesale industry members with 100 employees or fewer, not-for-profit enterprises, and government jurisdictions with a population of 50,000 or less are considered small entities. NMFS has determined that a "substantial number" of small entities would generally be 20% of the total universe of small entities affected by the regulation. A regulation would have a negative "significant impact" on these small entities if it reduced annual gross revenues by more than 5 percent, increased total costs of production by more than 5 percent, or resulted in compliance costs for small entities that are at least 10 percent higher than compliance costs as a percent of sales for large entities.

The proposed EFH designations will have no impact on small entities, fishermen, or fishing businesses, as the designations are not regulatory in nature and are limited to identifying the physical characteristics and geographic extent of the areas of priority interest to the Council and other regulatory agencies. Any regulatory action anticipated

by this plan amendment (maintaining the current Closed Area II closure restrictions within the area designated as an HAPC for juvenile Atlantic cod for habitat conservation reasons) would not be expected to have a significant impact on small entities, fishermen, or fishing businesses, as the proposed restrictions already exist in the area and there will be no additional restrictions on current fishing practices. The area affected by this proposal is extremely small (<0.2%) relative to the total available fishing area in the New England area.

# **13.3.2** Economic Impact of the Proposed Management Measure to Protect the Juvenile Atlantic Cod Habitat Area of Particular Concern

Maintaining the current Closed Area II closure restrictions in the area designated as a habitat area of particular concern for juvenile Atlantic cod will not cause any economic impacts to fishermen. The HAPC is wholly contained within Closed Area II, and even if the current restrictions were not extended to this area for habitat protection or conservation reasons, the closure restrictions would still exist. There are no additional restrictions or requirements placed on any segment of the fishing industry as a result of this proposed measure.

## 13.3.3 Summary Finding of Economic Impacts

There are two actions proposed in this plan amendment. The first is simply to describe and identify EFH for all species managed by the Council, which in and of itself, will have no economic impact. The second proposed action in this plan amendment is to establish a habitat area of particular concern for juvenile Atlantic cod and maintain the existing Closed Area II closure restrictions in this area for habitat protection reasons. As discussed in the previous section, this measure is not expected to cause any economic impacts to fishermen. None of the alternatives is expected to result in a "significant regulatory action" as defined in E.O. 12866.

# **13.4 EXECUTIVE ORDER 12866**

The proposed action does not constitute a significant regulatory action under Executive Order 12866; see Section 13.3 of this document.

# 13.5 REGULATORY FLEXIBILITY ACT

The proposed action will not have a significant economic impact on a substantial number of small entities and a Regulatory Flexibility Analysis is not required; see Section 13.3 of this document.

# **13.6 MARINE MAMMAL PROTECTION ACT**

The New England Fishery Management Council does not believe that this management

program will have any adverse effect on marine mammals that occur within the range of species in the management units of the applicable Fishery Management Plans. Commercial fishing operations and vessels which have valid fishing permits issued in accordance with Section 204(b) of the Magnuson-Stevens Fishery Conservation and Management Act are subject to the provisions of the MMPA and specifically Section 114 which governs the incidental take of marine mammals. See Section 12.5.5 of this document for a discussion of impacts on marine mammal populations.

## 13.7 ENDANGERED SPECIES ACT

The New England Fishery Management Council does not believe that this management program will have any adverse effect on any threatened or endangered species that occur within the range of species in the management units of the applicable fishery management plans. Commercial fishing operations and vessels which have valid fishing permits issued in accordance with Section 204(b) of the Magnuson-Stevens Fishery Conservation and Management Act are subject to the provisions of the ESA. See Section 12.5.5 of this document for a discussion of impacts on populations of endangered species.

## 13.8 COASTAL ZONE MANAGEMENT ACT

Implementation of the provisions of this amendment will be conducted in a manner consistent, to the maximum extent possible, with the coastal zone management programs of all states within the geographic extent of the Council's EFH designations, including all coastal states from Maine to North Carolina, within the meaning of Section 307(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations. The Council has submitted this amendment package to the coastal zone management programs of all states within the geographic extent of the Council's EFH designations, including all coastal states from Maine to North Carolina, for review. Copies of the transmittal letters that have the Council's determination of whether the proposed measures are consistent with the coastal zone management plans for the individual states are contained in Appendix F.

No state concurrences with the Council's determinations have been received at the time of submittal of the EFH Amendment.

## **13.9 PAPERWORK REDUCTION ACT (PRA)**

Copies of the PRA analyses for Amendment 9 to the Multispecies FMP, Amendment 7 to the Sea Scallop FMP, the Monkfish FMP, and the forthcoming Atlantic Herring FMP are available from the NMFS Regional Office, Gloucester, Massachusetts. This action includes no new collection of information and further analysis is not required.

### 14.0 PUBLIC COMMENTS SUMMARY AND COUNCIL RESPONSES

The following section contains a summary of written and verbal comments received during the EFH public hearing and review period from July 1 - July 31, 1998. The comments are not presented verbatim since the same point was often made by more than one individual. Further, a number of comments addressed points not directly relevant to the amendment proposals, objectives or analyses. These comments are not included in the summary, although they are provided in Volume III of the amendment package which includes all comments provided to the Council. This section also includes brief responses from the Council related to the comments.

#### **General Comments Related to Essential Fish Habitat:**

1. **Comment:** A large number of letters, form letters, and verbal comments supported the Council's essential fish habitat designations. The Council received a few comments that it should add a ten minute square to EFH designation for Atlantic herring eggs.

**Response:** The Council maintained the EFH designations as presented in the EFH public hearing document, except for Atlantic salmon, Atlantic halibut and Atlantic herring. Additional information was presented by the State of Maine which contradicted the information used to include the Medomac and St. George rivers in the Atlantic salmon EFH designation, so these rivers were removed from the designation. Based on the information received during the public hearing process and on further Council deliberation, EFH was designated for Atlantic halibut based on a combination of the historic range and the current scientifically observed range. The Council considered the additional information presented by the Maine Department of Marine Resource related to the EFH designation for Atlantic herring eggs and determined it most appropriate to include this additional area. All other proposed EFH designations remained the same and are reflected in Section 3.4 of the EFH amendment.

2. **Comment:** A comment expressed concern that the Council should not attempt to designate EFH until all of the sea bottom is mapped.

**Response:** The Council was obligated, by the Sustainable Fisheries Act, to designate EFH for all managed species, using the best information *available* and to complete these designations by October 11, 1998. While having detailed maps of the entire sea bottom would allow the Council to refine its designations, adequate information exists to develop initial designations that meet the intention of the law.

3. **Comment:** Several comments reflected concern about the future of EFH and how the Council will implement measures to protect habitat. At least one comment noted that the lack of specific measures to implement EFH is a problem. Several comments also expressed concern that the Council will use the EFH designations to close all of Georges Bank to all fishing activity.

**Response:** The Council has developed an EFH Strategic Plan (Section 8.0) that outlines how the Council will continue the EFH management process over the next five years, leading up to a review and revision of all the Council's EFH designations. This plan also explains how the Council will pursue the development and implementation of measures determined necessary to protect EFH from any adverse impacts associated with fishing activity. Although all of Georges Bank is designated EFH for one species or another, the Council will use the designations to pinpoint small areas that are EFH for multiple species at especially critical life history stages. If measures are determined necessary to protect EFH from any adverse impacts associated with fishing activity, these small areas would most likely be the focus of Council consideration.

4. **Comment:** There were several comments that the Council's EFH designations are too broad and encompass too much area.

**Response:** The Council designated EFH for all species as narrowly or as broadly as was most appropriate for each species, based on the guidelines provided to the Council by NMFS, the information available on each species, and the status of the stocks. In some cases the EFH designation for a particular species is a broad expansive area and this occurred when there was little information on the species or when the species was in a overfished condition. In other cases, in light of detailed information and/or a species that was not overfished, the Council designated EFH more narrowly. The Council will continue to review the EFH designations, and refine them as more information becomes available.

5. **Comment:** The Council received several comments suggesting that natural events impact bottom habitats more than man-made impacts and therefore the Council should not manage habitat as habitat issues are not a problem

**Response:** The Council is required by the Sustainable Fisheries Act to identify and describe the EFH for all managed species and take action to manage both the fishing and non-fishing related activities that have the potential to adversely impact EFH. There is a substantial amount of scientific literature that suggests that both some fishing and non-fishing related activities have the potential and do cause adverse impacts to the habitat of our fishery resources. Sections 4.0, 5.0, and Appendix E describe these activities and the impacts they can cause.

6. **Comment:** The Council received a comment that there is no indication how the Council will use the EFH designations for habitat conservation and management.

**Response:** Sections 4.0 and 5.0 provide an assessment of the potential adverse impacts to EFH from fishing and non-fishing related activities. Section 4.0 also describes the Council's existing management measures which provide habitat conservation benefits and the process the Council will use to implement future conservation measures, should they be determined to be necessary. Section 6.0 of the amendment describes the conservation and enhancement measures that the Council recommends to mitigate non-fishing impacts to EFH. Section 8.0 describes the
Council's EFH Strategic Plan for continuing its habitat management program.

7. **Comment:** The Council received a comment that the Council clarify its explanation of the methodology for developing the EFH designations.

**Response:** This has been done in the EFH amendment document, Section 3.2.

8. **Comment:** The Council received one comment that the entire EFH amendment document should be made available for public review rather than a public hearing document.

**Response:** The Council policy is to publish a public hearing document that summarizes the points under consideration by the Council, rather than to develop an FMP document in its entirety prior to receiving public input. Many sections of FMPs and amendments are required by law, but not of highest interest to the public. Public hearing documents are designed to be shortened, summary versions of the Council decision documents in order for the public to understand the most significant decisions before the Council and to provide input on those decisions as efficiently as possible. Waiting to develop the full amendment package, then sending out documents that are often several hundreds of pages would unnecessarily delay and overwhelm the public process.

9. **Comment:** The Council received one comment that the Council should send public hearing notices to all towns in the region.

**Response:** The Council has a mailing list that it maintains of all individuals and organizations that have expressed an interest in being kept abreast of Council issues and made aware of Council meetings and hearings. All individuals and organizations on the Council mailing list are sent notices of public hearings. The Council also sends notices to several newspapers in the New England and Mid-Atlantic region. Council management actions are focused on the fishing industry and the major fishing communities receive hearing notices through their local fishing organizations and commissions. Sending additional notices to all communities in the affected regions (often all New England and Mid-Atlantic coastal states) would be cost prohibitive and unnecessarily redundant.

10. **Comment:** The Council received two comments opposing the designation of Wells Harbor, Maine as EFH, suggesting that the appropriate scientists were not consulted, that there was no information contributing to the designation, and that the designation was intended to prevent a maintenance dredging activity.

**Response:** Wells Harbor, Maine, was designated EFH for five species: Atlantic herring, white hake, windowpane flounder, winter flounder, and yellowtail flounder. The information used to develop these designations was obtained from the NOAA Estuarine Living Marine Resources (ELMR) program reports. A summary of these reports and an explanation of the Council's rationale for incorporating the information they contain in the EFH designation process is provided in Section 3.2.2 of the amendment. Local scientists were consulted in the development of the ELMR reports

used by the Council. The Council made great efforts to ensure that all EFH designations were based on biological information without regard to human activities or their impacts -- addressing impacts to EFH separately. Review of any planned maintenance dredging operation will fall under the EFH consultation process led by NMFS. The Council will support NMFS in this process. No EFH designations were made for the purposes of preventing any specific actions including dredging.

11. **Comment:** There was a single comment asking where the habitat area of particular concern (HAPC) concept came from.

**Response:** The guidelines published in the *Federal Register* via an Interim Final Rule on December 19, 1997, Volume 62, Number 244, describes the definition, criteria and use of HAPCs. §600.810, §600.815(a)(6), §600.815(a)(7), and §600.815(a)(9) provide detailed guidance to the Council regarding the designation and management of HAPCs.

12. **Comment:** The Council received a comment that when using adult distributions as a proxy for designating EFH for eggs and/or larvae, the Council should limit the use of the proxy to the distribution of spawning adults, rather than the entire range of adults.

**Response:** The Council agrees with the intent of this comment, unfortunately, the data and information available to the Council did not differentiate between the range of adults in general and the range of spawning adults. As this information is made available, the Council will refine its EFH designations.

### **Comments Related to the Proposed Juvenile Atlantic Cod HAPC Designations:**

13. **Comment:** A large number of letters, form letters, and verbal comments supported maintaining current closure restrictions for the juvenile Atlantic cod HAPCs, rather than restricting the use of all fishing activity within this area. The Council received several letters of support for providing these areas permanent protection from destructive fishing practices. The Council received several comments specifically opposed to closing the juvenile Atlantic cod HAPCs to all types of fishing activity.

**Response:** The Council proposes to maintain the current Closed Area II closure restrictions for the juvenile Atlantic cod HAPC and, by doing so, the Council did not propose to close the area to all types of fishing activity. For a discussion of the Council's rationale for choosing this alternative, see Section 12.2.5. No action that the Council takes is ever "permanent" as a later Council action can undo the earlier action.

14. **Comment:** A large number of form letter and other written comments suggested that there is evidence of areas in Gulf of Maine that should be designated as HAPCs for juvenile Atlantic cod.

**Response:** The comments did not provide any additional information and the Council did not have access to any information suggested by these comments. The Council will pursue this issue and continue to review any information made available.

The Council has the option to designate additional HAPCs using the framework adjustment process.

15. **Comment:** The Council received several comments supporting the designation of two areas (one in Closed Area II and one in Closed Area I) as juvenile Atlantic cod HAPCs.

**Response:** The Council considered the information available on both areas and determined that only the information available for Closed Area II was sufficient for the Council to designate this area as an HAPC. The information on the area within Closed Area I was insufficient to make an HAPC designation.

16. **Comment:** The Council received several comments that the proposed HAPC designation for juvenile Atlantic cod in Area I was based on insufficient and inconclusive information.

**Response:** The Council considered the information available on both areas and determined that only the information available for Closed Area II was sufficient for the Council to designate this area as an HAPC. The information on the area within Closed Area I was insufficient to make an HAPC designation.

17. **Comment:** The Council received several comments opposing the areas proposed for juvenile Atlantic cod HAPCs, either because the information on which the designations were based is wrong (either there is no cobble in these areas or there are no juvenile cod in these areas), because these areas are productive scallop grounds and therefore should not be designated juvenile Atlantic cod HAPCs, or because there may not be enough information to support the cod HAPC designations.

**Response:** There is a substantial literature of scientific studies that demonstrates the importance of this habitat type and the characteristics found in Closed Area II for increased survival of recently settled juvenile Atlantic cod (see Section 3.3.1 for summary). NMFS research clearly indicates an abundance of juvenile Atlantic cod within the HAPC designated in Closed Area II. Independent scientific research has, for several years, documented the location of cobble substrate along the northern edge of Georges Bank. Taken together, this information provides more than enough of a basis for designating the small area on the northern edge of Closed Area II as an HAPC for juvenile Atlantic cod.

18. **Comment:** The Council received one comment that the range of management alternatives presented to conserve the juvenile Atlantic cod HAPC does not really represent the two extremes of possible measures.

**Response:** The Council felt that going out to public hearing with a range of alternatives from maintaining the status quo to the most restrictive possible measure (prohibiting all fishing activity in the area) did represent the two extremes of measures it could implement for this area.

19. Comment: The Council received one comment that the juvenile Atlantic cod HAPC

is also an important area for herring (egg beds).

**Response:** The Council recognizes that this may be the case, and the Council will continue to review the information on this area and take additional action, as appropriate.

## **Comments on the Proposed Atlantic Salmon EFH and HAPC Designations:**

20. **Comment:** The Council received two comments that it should be more specific in the designation of Atlantic salmon EFH, as well as a comment that the best available data was not used to designate salmon EFH.

**Response:** The Council agrees that with more detailed information it may be able to refine the EFH designations for Atlantic salmon to be more specific and limited to specific portions of rivers, rather than the entire river watershed. At this point, however, the information available to the Council did not provide a level of detail sufficient for the Council to limit the EFH designations beyond naming entire river systems as EFH. It is important to note that the Atlantic salmon EFH Text Description (Section 3.4) does provide limiting factors, such as substrate type, water depth, etc. for the EFH designation.

21. **Comment:** The Council received one comment that the river tributaries should be included in Atlantic salmon EFH designations.

**Response:** In its review of the information available, the Council agreed that the Atlantic salmon EFH designations should include the tributaries to the named river systems. The Atlantic salmon EFH Text Description clearly states that these tributaries are included in the EFH designation.

22. **Comment:** The Council received one comment that the St. Croix River should not be considered EFH for Atlantic salmon because it borders Canada.

**Response:** The Council considered the available information and the methodology used to designate EFH for Atlantic salmon and the St. Croix River met the criteria set by the Council. However, the Council can only designate EFH in U.S. waters, so, by definition, only those portions of the St. Croix River that are within the U.S. border are included in the EFH designation for Atlantic salmon.

23. **Comment:** The Council received a few comments that it should limit the Atlantic salmon HAPC designation to seven rivers in Maine rather than the proposed eleven rivers.

**Response:** The Council considered all available information regarding the appropriateness of designating just the seven rivers, or all eleven rivers as HAPCs for Atlantic salmon. Considering the importance of all eleven rivers for Atlantic salmon, and the likelihood that the salmon from the four rivers in question are part of the same distinct population segment as the salmon from the other seven, the Council felt that it was appropriate to include all eleven rivers in the Atlantic salmon HAPC

designation. These four rivers met the same criteria used by the Council to designate HAPC for Atlantic salmon as the other seven.

24. **Comment:** The Council received one comment that it should designate all eleven proposed rivers as HAPC for Atlantic salmon.

**Response:** The Council considered all available information regarding the appropriateness of designating just the seven rivers, or all eleven rivers as HAPCs for Atlantic salmon. Considering the importance of all eleven rivers for Atlantic salmon, and the likelihood that the salmon from the four rivers in question are part of the same distinct population segment as the salmon from the other seven, the Council felt that it was appropriate to include all eleven rivers in the Atlantic salmon HAPC designation.

25. **Comment:** The Council received one comment that the Connecticut and Merrimack Rivers should be considered for HAPC designation for Atlantic salmon.

**Response:** Based on the information available to the Council in review of this issue, it did not appear that the habitat of these two rivers met the criteria for HAPC designation. The rivers are not thought to support salmon from the distinct population segment of salmon that occupy the rivers in Maine, and thus do not meet the criteria set by the Council. These rivers are considered EFH for Atlantic salmon.

## **Comments Related to Fishing Related Impacts Assessment:**

26. **Comment:** The Council received one comment that lobster gear (pots) has no adverse impact on habitat. This individual was concerned that the Council might assume that all gear has the same impact and that to protect EFH, the Council might prohibit all types of fishing gear.

**Response:** While it is possible that under certain conditions and used a certain way, lobster pots would have the potential to adversely impact certain types of benthic habitat, based on the available information, under most conditions lobster pots contribute minimally, if at all, to the adverse impacts on habitat associated with fishing activity. The Council recognizes this and in no case did the Council propose to restrict the use of lobster pots for habitat protection.

27. **Comment:** The Council received several comments that scallop dredging contributes to habitat destruction, and because of this, scallopers should not be allowed in the Closed Areas.

**Response:** The Council agrees that there is evidence that scallop dredges have the potential to cause adverse impacts to certain types of benthic habitats. No where in the EFH amendment does the Council propose to allow scallop dredges into any of the Council's current closed areas where they are currently prohibited.

28. **Comment:** The Council received *two* comments that scallop gear does no more damage to habitat than any other gear, and that scallop dredges actually enhance

habitat.

**Response:** All fishing gears interact with the bottom in different ways and have different impacts on different types of habitat. On some types of habitat, certain gears may have a greater potential to cause an adverse impact, while on other types of habitat, different gears may have a greater potential to cause an adverse impact. There may be certain conditions under which a scallop dredge may enhance habitat, but the scientific literature available to the Council largely suggests that scallop dredges are more often associated with adverse impacts to habitat.

29. **Comment:** The Council received one comment that killing epifauna may not be bad for the environment.

**Response:** There is no evidence to support this assertion, but if the Council received scientific information which does support the assertion, it would give it due consideration. Emergent epifauna provides a third dimension to the sea floor, providing shelter for many juvenile groundfish to avoid predation, as well as attracting organisms which are prey for these juvenile groundfish.

30. **Comment:** The Council received many individual letters and form letters suggesting that the Council's EFH management proposal does not go far enough to protect EFH from the adverse impacts associated with fishing activity.

**Response:** The existing management measures and the new management measures proposed in the Council's SFA amendments provide significant conservation benefit to EFH. The Council will continue to examine any adverse impacts to EFH associated with fishing activity and will implement new management measures if it determines that such action is required to meet the intent of the Sustainable Fisheries Act. Section 8.0 describes the process the Council will use to continue this process.

31. **Comment:** The Council received one comment that the current management measures do not protect EFH.

**Response:** The Interim Final Rule suggests three options for managing the adverse effects from fishing: (1) fishing equipment restrictions; (2) time/area closures; and, (3) harvest limits. The Council currently employs all three of these mechanisms in the various fisheries it manages and, as such, these existing measures meet the standard set out in the Interim Final Rule for protecting EFH.

# **Comments Related to the Non-Fishing Related Impacts Assessment:**

32. **Comment:** The Council received several comments expressing concern about the impacts on habitat of non-fishing related activities.

**Response:** The Council is also concerned about non-fishing related impacts to EFH and has completed an assessment of the most significant non-fishing related threats to EFH (Section 5.0) and has developed habitat conservation and enhancement recommendations to mitigate these impacts (Section 6.0).

33. **Comment:** The Council received two comments that it should prioritize the most significant non-fishing impacts and develop trigger levels for Council involvement.

**Response:** The Council recognizes that it can not become involved with all decisions relating to non-fishing related activities that may adversely impact EFH, but it does not want to unnecessarily rule out possible involvement in the future, regardless of the level of the activity.

34. **Comment:** The Council received one comment that it should take a stand against land-based outfall systems, especially the Massachusetts Bay outfall pipe system.

**Response:** The Council does intend to keep informed of developments in this area and will review information as it becomes available, especially on the Massachusetts Bay outfall system. If and when appropriate, the Council will become actively involved and provide comments to the relevant agencies.

### **Comments on the Proposed Framework Adjustment Process:**

35. **Comment:** The Council received several comments supporting the use of a framework adjustment process to streamline future EFH actions.

**Response:** The Council has proposed to use the framework adjustment process detailed in Section 4.12 of the amendment to streamline future designations of EFH or HAPC and to implement future management measures for the conservation of EFH.

36. **Comment:** The Council received two comments opposing the use of a framework adjustment process to streamline future EFH actions.

**Response:** The Council has proposed to use the framework adjustment process detailed in Section 4.12 of the amendment to streamline future designations of EFH or HAPC and to implement future management measures for the conservation of EFH. The Council's framework adjustment process complies fully with the Administrative Procedures Act which ensures the appropriate level of public input. This is the most efficient mechanism the Council can use to accommodate future action. The public will continue to have an opportunity to provide input on all actions proposed by the Council.